

AS3030.001

EtherCAT Interface



rev.0.0
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EtherCAT the versatile high speed Ethernet Filedbus



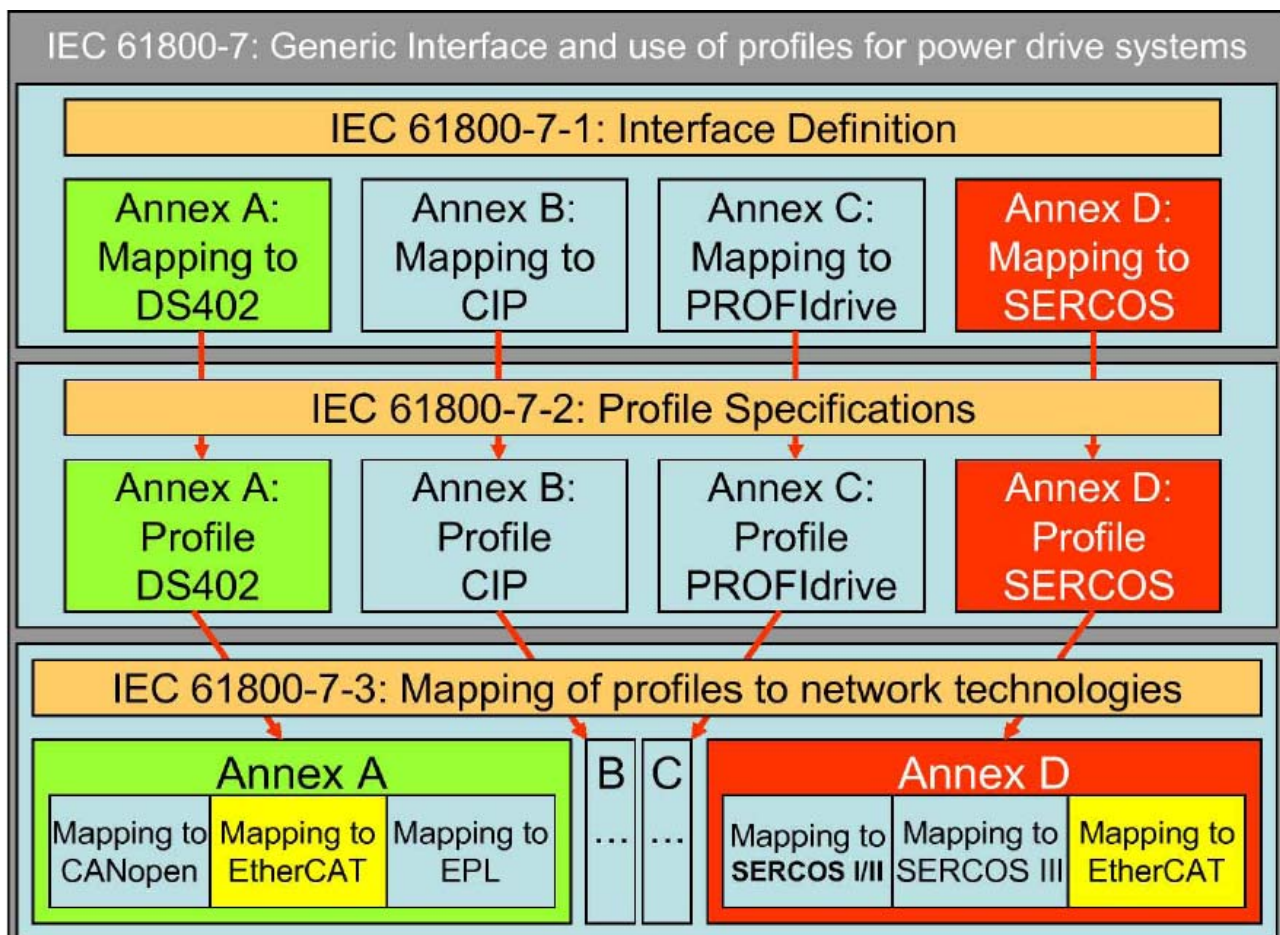
EtherCAT is industrial Ethernet, it is easier to configure. This communication is an integrated solution because there is only one channel.

The reaction time is short:

- 256 I/O in 11µs
- 1000 difgital I/O distributed to 100 nodes in 30 µs
- 200 analog I/O (16bit) in 50 µs, 20 kHz sampling rate
- 100 servo axis (each 8 byte IN+OUT) in 100 µs
- 12000 digital I/O in 350 µs

Application fields:

- | | |
|----------------------------------|--|
| Fast applications: | packaging, high speed presses, injection molding, robotics ... |
| Widely distributed applications: | logistics, data acquisition, handling ... |



1 EtherCAT Object Dictionary

1.1. Communication Area (0x1000 - 0x1FFF)

1.1.1. Object 0x1000 – Device Type

Object Description	
Index	0x1000
Data Type	UNSIGNED32
Max Sub-Index	0x00
Obj Code	OBJCODE_VAR
Name	"Device Type"

Entry Description x1000 0x00								
Index	0x1000							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	0x00020192							
Min Value	-							
Max Value	-							
Description	"Device Type"							

1.1.2. Object 0x1008 – Device Name

Object Description	
Index	0x1008
Data Type	VISIBLE_STRING
Max Sub-Index	0x00
Obj Code	OBJCODE_VAR
Name	"Device Name"

Entry Description 0x1008 0x00								
Index	0x1008							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	400							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	"EtherCAT Interface for Parker Hannifin SBC drives"							
Min Value	-							
Max Value	-							
Description	"Device Name"							

1.1.3. Object 0x1009 – Hardware Version

Object Description	
Index	0x1009
Data Type	VISIBLE_STRING
Max Sub-Index	0x00
Obj Code	OBJCODE_VAR
Name	"Hardware Version"

Entry Description 0x1009 0x00								
Index	0x1009							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	80							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	"AS3030.001"							
Min Value	-							
Max Value	-							
Description	"Hardware Version"							

1.1.4. Object 0x100A – Software Version

Object Description	
Index	0x100A
Data Type	VISIBLE_STRING
Max Sub-Index	0x00
Obj Code	OBJCODE_VAR
Name	"Software Version"

Entry Description 0x100A 0x00								
Index	0x100A							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	248							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	"EtherCAT Parker SBC vVV.RR.BBBB"							
Min Value	-							
Max Value	-							
Description	"Software Version"							

1.1.5. Object 0x1018 – Identity Object

Object Description	
Index	0x1018
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"Identity Object"

Entry Description 0x1018 0x00								
Index	0x1018							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	4							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x1018 0x01								
Index	0x1018							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	0x000001B5							
Min Value	-							
Max Value	-							
Description	"Vendor ID"							

Entry Description 0x1018 0x02								
Index	0x1018							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	PdoMap							
	0	0	0	0	0	1	1	1
Default Value	0x002E3BF1							
Min Value	-							
Max Value	-							
Description	"Product Code"							
Additional Informations	83:82							
Notes	This value, at Application SW start-up, is initialized with DEFAULT VALUE "0x002E3BF1" (3030001).							
	During 1st DRIVE configuration procedure 1st DRIVE, if present, can overwrite this value to EtherCAT Slave Application ram with its DRIVE TYPE CODE that is formatted like follow:							
	Word High				Word Low			
	Number of Drive Connected (1-3)				Drive Type Code: 0x00xx - SLVDN 0x00xx - SPDN/TwinN 0x00xx - HiDrive 0xXXXX -			
Entry Description 0x1018 0x03								
Index	0x1018							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	PdoMap							
	0	0	0	0	0	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"Revision"							
Additional Informations								
Notes	This value, at Application SW start-up, is initialized with DEFAULT VALUE "0x00000000". During 1st DRIVE configuration procedure 1st DRIVE, if present, can overwrite this value to EtherCAT Slave Application ram with its DRIVE TYPE REVISION CODE.							

Entry Description 0x1018 0x04								
Index	0x1018							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"Serial Number"							
Additional Informations								
Notes	This is the low 32 bit value of PORT0 MAC Address.							

1.1.6. Object 0x1100 – EtherCAT Configured Station Address

Object Description	
Index	0x1100
Data Type	UNSIGNED16
Max Sub-Index	0x00
Obj Code	OBJCODE_VAR
Name	"EtherCAT Configured Station Address"

Entry Description 0x1100 0x00								
Index	0x1100							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	Configured by EtherCAT Master							
Min Value	-							
Max Value	-							
Description	"EtherCAT Configured Station Address"							

1.1.7. Object 0x1600 – 1st Drive Receive PDO 1 Mapping Structure

NOTE: It is the Receive PDO 1 for 1st DRIVE.

Object Description	
Index	0x1600
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1 st Drive Receive PDO 1 Mapping"

Entry Description 0x1600 0x00								
Index	0x1600							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1600 0x01								
Index	0x1600							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 1 Entry 1"							

Entry Description 0x1600 0x02								
Index	0x1600							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 1 Entry 2"							

Entry Description 0x1600 0x03								
Index	0x1600							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 1 Entry 3"							

Entry Description 0x1600 0x04								
Index	0x1600							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 1 Entry 4"							

1.1.8. Object 0x1601 – 1st Drive Receive PDO 2 Mapping Structure

NOTE: It is the Receive PDO 2 for 1st DRIVE.

Object Description	
Index	0x1601
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1 st Drive Receive PDO 2 Mapping"

Entry Description 0x1601 0x00								
Index	0x1601							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1601 0x01								
Index	0x1601							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 2 Entry 1"							

Entry Description 0x1601 0x02								
Index	0x1601							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 2 Entry 2"							

Entry Description 0x1601 0x03								
Index	0x1601							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 2 Entry 3"							

Entry Description 0x1601 0x04								
Index	0x1601							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 2 Entry 4"							

1.1.9. Object 0x1602 – 1st Drive Receive PDO 3 Mapping Structure

NOTE: It is the Receive PDO3 for 1ST DRIVE.

Object Description	
Index	0x1602
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1 st Drive Receive PDO 3 Mapping"

Entry Description 0x1602 0x00								
Index	0x1602							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1602 0x01								
Index	0x1602							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 3 Entry 1"							

Entry Description 0x1602 0x02								
Index	0x1602							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 3 Entry 2"							

Entry Description 0x1602 0x03								
Index	0x1602							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 3 Entry 3"							

Entry Description 0x1602 0x04								
Index	0x1602							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 3 Entry 4"							

1.1.10. Object 0x1603 – 1st Drive Receive PDO 4 Mapping Structure

NOTE: It is the Receive PDO4 for 1ST DRIVE.

Object Description	
Index	0x1603
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1 st Drive Receive PDO 4 Mapping"

Entry Description 0x1603 0x00								
Index	0x1603							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1603 0x01								
Index	0x1603							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 4 Entry 1"							

Entry Description 0x1603 0x02								
Index	0x1603							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 4 Entry 2"							

Entry Description 0x1603 0x03								
Index	0x1603							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 4 Entry 3"							

Entry Description 0x1603 0x04								
Index	0x1603							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Receive PDO 4 Entry 4"							

1.1.11. Object 0x1640 – 2nd Drive Receive PDO 1 Mapping Structure

NOTE: It is the Receive PDO 1 for 2nd DRIVE (if present).

Object Description	
Index	0x1640
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Receive PDO 1 Mapping"

Entry Description 0x1640 0x00								
Index	0x1640							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1640 0x01								
Index	0x1640							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 1 Entry 1"							

Entry Description 0x1640 0x02								
Index	0x1640							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 1 Entry 2"							

Entry Description 0x1640 0x03								
Index	0x1640							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 1 Entry 3"							

Entry Description 0x1640 0x04								
Index	0x1640							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 1 Entry 4"							

1.1.12. Object 0x1641 – 2nd Drive Receive PDO 2 Mapping Structure

NOTE: It is the Receive PDO 2 for 2ND DRIVE (if present).

Object Description								
Index	0x1641							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"2 nd Drive Receive PDO 2 Mapping"							
Entry Description 0x1641 0x00								
Index	0x1641							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1641 0x01								
Index	0x1641							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 2 Entry 1"							
Entry Description 0x1641 0x02								
Index	0x1641							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 2 Entry 2"							

Entry Description 0x1641 0x03								
Index	0x1641							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 2 Entry 3"							
Entry Description 0x1641 0x04								
Index	0x1641							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 2 Entry 4"							

1.1.13. Object 0x1642 – 2nd Drive Receive PDO 3 Mapping Structure

NOTE: It is the Receive PDO 3 for 2ND DRIVE (if present).

Object Description	
Index	0x1642
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Receive PDO 3 Mapping"

Entry Description 0x1642 0x00								
Index	0x1642							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1642 0x01								
Index	0x1642							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 3 Entry 1"							

Entry Description 0x1642 0x02								
Index	0x1642							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 3 Entry 2"							

Entry Description 0x1642 0x03								
Index	0x1642							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 3 Entry 3"							

Entry Description 0x1642 0x04								
Index	0x1642							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 3 Entry 4"							

1.1.14. Object 0x1643 – 2nd Drive Receive PDO 4 Mapping Structure

NOTE: It is the Receive PDO 4 for 2ND DRIVE (if present).

Object Description	
Index	0x1643
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Receive PDO 4 Mapping"

Entry Description 0x1643 0x00								
Index	0x1643							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1643 0x01								
Index	0x1643							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 4 Entry 1"							

Entry Description 0x1643 0x02								
Index	0x1643							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 4 Entry 2"							

Entry Description 0x1643 0x03								
Index	0x1643							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 4 Entry 3"							

Entry Description 0x1643 0x04								
Index	0x1643							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Receive PDO 4 Entry 4"							

1.1.15. Object 0x1680 – 3rd Drive Receive PDO 1 Mapping Structure

NOTE: It is the Receive PDO 1 for 3rd DRIVE (if present).

Object Description								
Index	0x1680							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"3 rd Drive Receive PDO 1 Mapping"							
Entry Description 0x1680 0x00								
Index	0x1680							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1680 0x01								
Index	0x1680							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 1 Entry 1"							
Entry Description 0x1680 0x02								
Index	0x1680							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 1 Entry 2"							

Entry Description 0x1680 0x03								
Index	0x1680							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 1 Entry 3"							
Entry Description 0x1680 0x04								
Index	0x1680							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 1 Entry 4"							

1.1.16. Object 0x1681 – 3rd Drive Receive PDO 2 Mapping Structure

NOTE: It is the Receive PDO 2 for 3RD DRIVE (if present).

Object Description	
Index	0x1681
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"3 rd Drive Receive PDO 2 Mapping"

Entry Description 0x1681 0x00								
Index	0x1681							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1681 0x01								
Index	0x1681							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 2 Entry 1"							

Entry Description 0x1681 0x02								
Index	0x1681							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 2 Entry 2"							

Entry Description 0x1681 0x03								
Index	0x1681							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 2 Entry 3"							
Entry Description 0x1681 0x04								
Index	0x1681							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 2 Entry 4"							

1.1.17. Object 0x1682 – 3rd Drive Receive PDO 3 Mapping Structure

NOTE: It is the Receive PDO 3 for 3RD DRIVE (if present).

Object Description	
Index	0x1682
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"3 rd Drive Receive PDO 3 Mapping"

Entry Description 0x1682 0x00								
Index	0x1682							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1682 0x01								
Index	0x1682							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 3 Entry 1"							

Entry Description 0x1682 0x02								
Index	0x1682							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 3 Entry 2"							

Entry Description 0x1682 0x03								
Index	0x1682							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 3 Entry 3"							

Entry Description 0x1682 0x04								
Index	0x1682							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 3 Entry 4"							

1.1.18. Object 0x1683 – 3rd Drive Receive PDO 4 Mapping Structure

NOTE: It is the Receive PDO 4 for 3RD DRIVE (if present).

Object Description	
Index	0x1683
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Receive PDO 4 Mapping"

Entry Description 0x1683 0x00								
Index	0x1683							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1683 0x01								
Index	0x1683							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 4 Entry 1"							

Entry Description 0x1683 0x02								
Index	0x1683							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 4 Entry 2"							

Entry Description 0x1683 0x03								
Index	0x1683							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 4 Entry 3"							

Entry Description 0x1683 0x04								
Index	0x1683							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Receive PDO 4 Entry 4"							

1.1.19. Object 0x1A00 – 1st Drive Transmit PDO 1 Mapping Structure

NOTE: It is the Transmit PDO 1 for 1ST DRIVE.

Object Description								
Index	0x1A00							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"1 st Drive Transmit PDO 1 Mapping"							
Entry Description 0x1A00 0x00								
Index	0x1A00							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1A00 0x01								
Index	0x1A00							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 1 Entry 1"							
Entry Description 0x1A00 0x02								
Index	0x1A00							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 1 Entry 2"							

Entry Description 0x1A00 0x03								
Index	0x1A00							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 1 Entry 3"							

Entry Description 0x1A00 0x04								
Index	0x1A00							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 1 Entry 4"							

1.1.20. Object 0x1A01 – 1st Drive Transmit PDO 2 Mapping Structure

NOTE: It is the Transmit PDO 2 for 1ST DRIVE.

Object Description	
Index	0x1A01
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1 st Drive Transmit PDO 2 Mapping"

Entry Description 0x1A01 0x00								
Index	0x1A01							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A01 0x01								
Index	0x1A01							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 2 Entry 1"							

Entry Description 0x1A01 0x02								
Index	0x1A01							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 2 Entry 2"							

Entry Description 0x1A01 0x03								
Index	0x1A01							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 2 Entry 3"							

Entry Description 0x1A01 0x04								
Index	0x1A01							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 2 Entry 4"							

1.1.21. Object 0x1A02 – 1st Drive Transmit PDO 3 Mapping Structure

NOTE: It is the Transmit PDO 3 for 1ST DRIVE.

Object Description	
Index	0x1A02
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"1st Drive Transmit PDO 3 Mapping"

Entry Description 0x1A02 0x00								
Index	0x1A02							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A02 0x01								
Index	0x1A02							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 3 Entry 1"							

Entry Description 0x1A02 0x02								
Index	0x1A02							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 3 Entry 2"							

Entry Description 0x1A02 0x03								
Index	0x1A02							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 3 Entry 3"							

Entry Description 0x1A02 0x04								
Index	0x1A02							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 3 Entry 4"							

1.1.22. Object 0x1A03 – 1st Drive Transmit PDO 4 Mapping Structure

NOTE: It is the Transmit PDO 4 for 1ST DRIVE.

Object Description								
Index	0x1A03							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"1 st Drive Transmit PDO 4 Mapping"							
Entry Description 0x1A03 0x00								
Index	0x1A03							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1A03 0x01								
Index	0x1A03							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 4 Entry 1"							
Entry Description 0x1A03 0x02								
Index	0x1A03							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 4 Entry 2"							

Entry Description 0x1A03 0x03								
Index	0x1A03							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 4 Entry 3"							

Entry Description 0x1A03 0x04								
Index	0x1A03							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"1 st Drive Transmit PDO 4 Entry 4"							

1.1.23. Object 0x1A40 – 2nd DriveTransmit PDO 1 Mapping Structure

NOTE: It is the Transmit PDO 1 for 2nd DRIVE (if present).

Object Description	
Index	0x1A40
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Transmit PDO 1 Mapping"

Entry Description 0x1A40 0x00								
Index	0x1A40							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	00	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A40 0x01								
Index	0x1A40							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 1 Entry 1"							

Entry Description 0x1A40 0x02								
Index	0x1A40							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 1 Entry 2"							

Entry Description 0x1A40 0x03								
Index	0x1A40							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 1 Entry 3"							

Entry Description 0x1A40 0x04								
Index	0x1A40							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 1 Entry 4"							

1.1.24. Object 0x1A41 – 2nd Drive Transmit PDO 2 Mapping Structure

NOTE: It is the Transmit PDO 2 for 2nd DRIVE (if present).

Object Description	
Index	0x1A41
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Transmit PDO 2 Mapping"

Entry Description 0x1A41 0x00								
Index	0x1A41							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A41 0x01								
Index	0x1A41							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 2 Entry 1"							

Entry Description 0x1A41 0x02								
Index	0x1A41							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 2 Entry 2"							

Entry Description 0x1A41 0x03								
Index	0x1A41							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 2 Entry 3"							

Entry Description 0x1A41 0x04								
Index	0x1A41							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 2 Entry 4"							

1.1.25. Object 0x1A42 – 2nd Drive Transmit PDO 3 Mapping Structure

NOTE: It is the Transmit PDO 3 for 2nd DRIVE (if present).

Object Description								
Index	0x1A42							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"2 nd Drive Transmit PDO 3 Mapping"							
Entry Description 0x1A42 0x00								
Index	0x1A42							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1A42 0x01								
Index	0x1A42							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 3 Entry 1"							
Entry Description 0x1A42 0x02								
Index	0x1A42							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 3 Entry 2"							

Entry Description 0x1A42 0x03								
Index	0x1A42							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 3 Entry 3"							

Entry Description 0x1A42 0x04								
Index	0x1A42							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 3 Entry 4"							

1.1.26. Object 0x1A43 – 2nd Drive Transmit PDO 4 Mapping Structure

NOTE: It is the Transmit PDO 4 for 2nd DRIVE (if present).

Object Description	
Index	0x1A43
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"2 nd Drive Transmit PDO 4 Mapping"

Entry Description 0x1A43 0x00								
Index	0x1A43							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A43 0x01								
Index	0x1A43							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 4 Entry 1"							

Entry Description 0x1A43 0x02								
Index	0x1A43							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 4 Entry 2"							

Entry Description 0x1A43 0x03								
Index	0x1A43							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 4 Entry 3"							

Entry Description 0x1A43 0x04								
Index	0x1A43							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"2 nd Drive Transmit PDO 4 Entry 4"							

1.1.27. Object 0x1A80 – 3rd DriveTransmit PDO 1 Mapping Structure

NOTE: It is the Transmit PDO 1 for 3rd DRIVE (if present).

Object Description								
Index	0x1A80							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"3 rd Drive Transmit PDO 1 Mapping"							
Entry Description 0x1A80 0x00								
Index	0x1A80							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	00	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1A80 0x01								
Index	0x1A80							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 1 Entry 1"							
Entry Description 0x1A80 0x02								
Index	0x1A80							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 1 Entry 2"							

Entry Description 0x1A80 0x03								
Index	0x1A80							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 1 Entry 3"							
Entry Description 0x1A80 0x04								
Index	0x1A80							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 1 Entry 4"							

1.1.28. Object 0x1A81 – 3rd Drive Transmit PDO 2 Mapping Structure

NOTE: It is the Transmit PDO 2 for 3rd DRIVE (if present).

Object Description	
Index	0x1A81
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"3 rd Drive Transmit PDO 2 Mapping"

Entry Description 0x1A81 0x00								
Index	0x1A81							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A81 0x01								
Index	0x1A81							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 2 Entry 1"							

Entry Description 0x1A81 0x02								
Index	0x1A81							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 2 Entry 2"							

Entry Description 0x1A81 0x03								
Index	0x1A81							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 2 Entry 3"							

Entry Description 0x1A81 0x04								
Index	0x1A81							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 2 Entry 4"							

1.1.29. Object 0x1A82 – 3rd Drive Transmit PDO 3 Mapping Structure

NOTE: It is the Transmit PDO 3 for 3rd DRIVE (if present).

Object Description	
Index	0x1A82
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"3 rd Drive Transmit PDO 3 Mapping"

Entry Description 0x1A82 0x00								
Index	0x1A82							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							

Entry Description 0x1A82 0x01								
Index	0x1A82							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 3 Entry 1"							

Entry Description 0x1A82 0x02								
Index	0x1A82							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 3 Entry 2"							

Entry Description 0x1A82 0x03								
Index	0x1A82							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 3 Entry 3"							

Entry Description 0x1A82 0x04								
Index	0x1A82							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 3 Entry 4"							

1.1.30. Object 0x1A83 – 3rd Drive Transmit PDO 4 Mapping Structure

NOTE: It is the Transmit PDO 4 for 3rd DRIVE (if present).

Object Description								
Index	0x1A83							
Data Type	RECORD							
Max Sub-Index	0x04							
Obj Code	OBJCODE_RECORD							
Name	"3 rd Drive Transmit PDO 4 Mapping"							
Entry Description 0x1A83 0x00								
Index	0x1A83							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4							
Description	"Num Of Elements"							
Entry Description 0x1A83 0x01								
Index	0x1A83							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 4 Entry 1"							
Entry Description 0x1A83 0x02								
Index	0x1A83							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 4 Entry 2"							

Entry Description 0x1A83 0x03								
Index	0x1A83							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 4 Entry 3"							

Entry Description 0x1A83 0x04								
Index	0x1A83							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x00000000							
Min Value	-							
Max Value	-							
Description	"3 rd Drive Transmit PDO 4 Entry 4"							

1.1.31. Object 0x1C00 – Sync Manager Type

Object Description	
Index	0x1C00
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"Sync Manager Type"

Entry Description 0x1C00 0x00								
Index	0x1C00							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	4							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x1C00 0x01								
Index	0x1C00							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x01 (Mailbox Receive (Master to Slave))							
Min Value	-							
Max Value	-							
Description	"Sync Manager 0 Type"							

Entry Description 0x1C00 0x02								
Index	0x1C00							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x02 (Mailbox Send (Slave to Master))							
Min Value	-							
Max Value	-							
Description	"Sync Manager 1 Type"							

Entry Description 0x1C00 0x03								
Index	0x1C00							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x03 (Process Data Output)							
Min Value	-							
Max Value	-							
Description	"Sync Manager 2 Type"							
Entry Description 0x1C00 0x04								
Index	0x1C00							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x03 (Process Data Input)							
Min Value	-							
Max Value	-							
Description	"Sync Manager 3 Type"							

1.1.32. Object 0x1C02 – Cycle Diagnosis

Object Description	
Index	0x1C02
Data Type	RECORD
Max Sub-Index	0x04
Obj Code	OBJCODE_RECORD
Name	"Cycle Diagnosis"

Entry Description 0x1C02 0x00								
Index	0x1C02							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	4							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x1C02 0x01								
Index	0x1C02							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	1	1	1	1	1	1
Default Value	0x0000							
Min Value	0x0000							
Max Value	0xFFFF							
Description	"SM-Event Missed Counter"							

Entry Description 0x1C02 0x02								
Index	0x1C02							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	1	1	1	1	1	1
Default Value	0x0000							
Min Value	0x0000							
Max Value	0xFFFF							
Description	"Shift Time Too Short Counter"							

Entry Description 0x1C02 0x03								
Index	0x1C02							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	1	1	1	1	1	1
Default Value	0x0000							
Min Value	0x0000							
Max Value	0xFFFF							
Description	"Cycle Time Exceeded Counter"							

Entry Description 0x1C02 0x04								
Index	0x1C02							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	1	1	1	1	1	1
Default Value	0x0000							
Min Value	0x0000							
Max Value	0xFFFF							
Description	"SYNC0 Missed Counter"							

1.1.33. Object 0x1C12 – Receive PDO Assign

Object Description	
Index	0x1C12
Data Type	RECORD
Max Sub-Index	0x04 * Number of DRIVES founded
Obj Code	OBJCODE_RECORD
Name	"Receive PDO Assign"

Entry Description 0x1C12 0x00								
Index	0x1C12							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4 * Number of DRIVES founded							
Description	"Num Of Elements"							

Entry Description 0x1C12 0x01								
Index	0x1C12							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 1 Assign"							

Entry Description 0x1C12 0x02								
Index	0x1C12							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 2 Assign"							

Entry Description 0x1C12 0x03								
Index	0x1C12							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 3 Assign"							

Entry Description 0x1C12 0x04								
Index	0x1C12							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 4 Assign"							

Entry Description 0x1C12 0x05								
Index	0x1C12							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 5 Assign"							

Entry Description 0x1C12 0x06								
Index	0x1C12							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 6 Assign"							

Entry Description 0x1C12 0x07								
Index	0x1C12							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 7 Assign"							

Entry Description 0x1C12 0x08								
Index	0x1C12							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 8 Assign"							

Entry Description 0x1C12 0x09								
Index	0x1C12							
Sub-Index	0x09							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 9 Assign"							

Entry Description 0x1C12 0x0A								
Index	0x1C12							
Sub-Index	0x0A							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 10 Assign"							

Entry Description 0x1C12 0x0B								
Index	0x1C12							
Sub-Index	0x0B							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 11 Assign"							

Entry Description 0x1C12 0x0C								
Index	0x1C12							
Sub-Index	0x0C							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1603 + (0x40 * (Number of DRIVES founded-1))							
Description	"Receive PDO 12 Assign"							

1.1.34. Object 0x1C13 – Transmit PDO Assign

Object Description	
Index	0x1C13
Data Type	RECORD
Max Sub-Index	0x04 * Number of DRIVES founded
Obj Code	OBJCODE_RECORD
Name	"Transmit PDO Assign"

Entry Description 0x1C13 0x00								
Index	0x1C13							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	4 * Number of DRIVES founded							
Description	"Num Of Elements"							

Entry Description 0x1C13 0x01								
Index	0x1C13							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 1 Assign"							

Entry Description 0x1C13 0x02								
Index	0x1C13							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 2 Assign"							

Entry Description 0x1C13 0x03								
Index	0x1C13							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 3 Assign"							

Entry Description 0x1C13 0x04								
Index	0x1C13							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 4 Assign"							

Entry Description 0x1C13 0x05								
Index	0x1C13							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 5 Assign"							

Entry Description 0x1C13 0x06								
Index	0x1C13							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 6 Assign"							

Entry Description 0x1C13 0x07								
Index	0x1C13							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 7 Assign"							

Entry Description 0x1C13 0x08								
Index	0x1C13							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 8 Assign"							

Entry Description 0x1C13 0x09								
Index	0x1C13							
Sub-Index	0x09							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 9 Assign"							

Entry Description 0x1C13 0x0A								
Index	0x1C13							
Sub-Index	0x0A							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 10 Assign"							

Entry Description 0x1C13 0x0B								
Index	0x1C13							
Sub-Index	0x0B							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 11 Assign"							

Entry Description 0x1C13 0x0C								
Index	0x1C13							
Sub-Index	0x0C							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	0x1A03 + (0x40 * (Number of DRIVES founded-1))							
Description	"Transmit PDO 12 Assign"							

1.1.35. Object 0x1C32 – Sync Manager Output Parameters

Object Description	
Index	0x1C32
Data Type	RECORD
Max Sub-Index	0x06
Obj Code	OBJCODE_RECORD
Name	"Sync Manager Output Parameters"

Entry Description 0x1C32 0x00								
Index	0x1C32							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x06							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x1C32 0x01								
Index	0x1C32							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x0001 (Synchron Mode)							
Min Value	0x0000							
Max Value	0x0002							
Description	"Sync Mode"							
Additional Informations								
Supported Values	0x0000	Free Run Mode (not synchronized)						
	0x0001	Synchron Mode						
	0x0002	DC Sync0 Mode (synchronized with Sync0 Event)						

Entry Description 0x1C32 0x02								
Index	0x1C32							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	1000000 (1ms)							
Min Value	250000 (250us)							
Max Value	1000000000 (1s)							
Description	"Cycle Time"							
Additional Informations								
Notes	<p>If "Free Run Mode" or "Synchron Mode" are selected, it is MANDATORY for the EtherCAT MASTER Device to set a valid value of this Entry through SDO before request state transition PRE_OPERATIONAL to SAFE_OPERATIONAL or transition will be refused.</p> <p>If "DC Sync0 Mode" is selected, the "Sync0CycTime" register value (address 0x09A0), if valid value, will be copied in this Entry after state transition PRE_OPERATIONAL to SAFE_OPERATIONAL request if transition will be accepted.</p> <p>If "DC Sync1 Mode" is selected, the "Sync1CycTime" register value (address 0x09A4), if valid value, will be copied in this Entry after state transition PRE_OPERATIONAL to SAFE_OPERATIONAL request if transition will be accepted.</p>							

Entry Description 0x1C32 0x03								
Index	0x1C32							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Shift Time"							

Entry Description 0x1C32 0x04								
Index	0x1C32							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	Bit 15-3		Bit 2		Bit 1		Bit 0	
	Other Modes Not Supported		DC Sync0 Supported		Synchron Mode Supported		Free Run Mode Supported	
	0		1		1		1	
Min Value	-							
Max Value	-							
Description	"Sync Modes Supported"							

Entry Description 0x1C32 0x05								
Index	0x1C32							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Minimum Cycle Time"							

Entry Description 0x1C32 0x06								
Index	0x1C32							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Minimum Delay Time"							

1.1.36. Object 0x1C33 – Sync Manager Input Parameters

Object Description	
Index	0x1C33
Data Type	RECORD
Max Sub-Index	0x06
Obj Code	OBJCODE_RECORD
Name	"Sync Manager Input Parameters"

Entry Description 0x1C33 0x00								
Index	0x1C33							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x06							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x1C33 0x01								
Index	0x1C33							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0x0001 (Synchron Mode)							
Min Value	0x0000							
Max Value	0x0002							
Description	"Sync Mode"							
Additional Informations								
Supported Values	0x0000	Free Run Mode (not synchronized)						
	0x0001	Synchron Mode (synchronized with SM 2 Event)						
	0x0002	DC Sync0 Mode (synchronized with Sync0 Event)						

Entry Description 0x1C33 0x02								
Index	0x1C33							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	1000000 (1000us)							
Min Value	250000 (250us)							
Max Value	5000000 (5000us)							
Description	"Cycle Time"							
Additional Informations								
Notes	<p>If "Free Run Mode" or "Synchron Mode" are selected, it is MANDATORY for the EtherCAT MASTER Device to set a valid value of this Entry through SDO before request state transition PRE_OPERATIONAL to SAFE_OPERATIONAL or transition will be refused.</p> <p>If "DC Sync0 Mode" is selected, the "Sync0CycTime" register value (address 0x09A0), if valid value, will be copied in this Entry after state transition PRE_OPERATIONAL to SAFE_OPERATIONAL request if transition will be accepted.</p> <p>If "DC Sync1 Mode" is selected, the "Sync1CycTime" register value (address 0x09A4), if valid value, will be copied in this Entry after state transition PRE_OPERATIONAL to SAFE_OPERATIONAL request if transition will be accepted.</p>							

Entry Description 0x1C33 0x03								
Index	0x1C33							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Shift Time"							

Entry Description 0x1C33 0x04								
Index	0x1C33							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	Bit 15-3		Bit 2		Bit 1		Bit 0	
	Other Modes Not Supported		DC Sync0 Supported		Synchron Mode Supported		Free Run Mode Supported	
	0		1		1		1	
Min Value	-							
Max Value	-							
Description	"Sync Modes Supported"							

Entry Description 0x1C33 0x05								
Index	0x1C33							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Minimum Cycle Time"							

Entry Description 0x1C33 0x06								
Index	0x1C33							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0							
Min Value	-							
Max Value	-							
Description	"Minimum Delay Time"							

1.2. Manufacturer Specific Area (0x2000 – 0x5FFF)

1.2.1. Object 0x5000 – debug info: GENERIC variables

Object Description	
Index	0x5000
Data Type	RECORD
Max Sub-Index	0x0B
Obj Code	OBJCODE_RECORD
Name	"AS3030 debug info: GENERIC variables"

Entry Description 0x5000 0x00								
Index	0x5000							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x10							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5000 0x01								
Index	0x5000							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Start-up Switches value"							
Additional Informations								
Notes	The Switches value is read from the EtherCAT Slave Application SW only at the start-up and is written to 1 st DRIVE configuration variables. 1 st DRIVE, if necessary, can keep or modify the value and overwrite this to EtherCAT Slave Application ram. At this time the resulting value is loaded into ESC_CONFIGURED_STATION_ALIAS register (address 0x0012).							

Entry Description 0x5000 0x02								
Index	0x5000							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"NumDRIVE"							
Additional Informations								
Notes	<p>This entry is the number of DRIVES that the EtherCAT Slave Application SW is configured to manage.</p> <p>At the start-up, SW initialize this value to 1. During 1st DRIVE configuration procedure 1st DRIVE overwrite this value to EtherCAT Slave Application ram with the correct number of DRIVES manage from the EtherCAT interface.</p>							

Entry Description 0x5000 0x03								
Index	0x5000							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsNeed"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that the EtherCAT Slave Application SW is configured to manage.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x04								
Index	0x5000							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsOkEthStart"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that the EtherCAT Slave Application SW founded and correctly configured during the Initial DRIVE Connection Procedure.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	
Entry Description 0x5000 0x05								
Index	0x5000							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsOkEthLive"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that the EtherCAT Slave Application SW founded and correctly configured during the Initial DRIVE Connection Procedure that maintain correct conditions during the normal EtherCAT life.							
	If DRIVE connection to EtherCAT interface fall down the relative bit is reset to 0 value and cannot return to 1.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x06								
Index	0x5000							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrInit"							
Additional Informations								
Notes	This entry is the bit mask of the Initial DRIVES Connection Procedure Errors (error if bit set to 1). These errors are not resettable. If one or more bits are set to 1 the EtherCAT Slave Interface refused state transition upper the PRE_OPERATIONAL state.							
	Bit 0	Board Interface EEPROM Configuration Error. If this error is present EtherCAT Slave Interface remains into BOOT state.						
	Bit 1	EtherCAT EEPROM Update Error. If this error is present EtherCAT Slave Interface remains into BOOT state.						
	Bit 2	EtherCAT Slave Controller initialization error. If this error is present EtherCAT Slave Interface remains into BOOT state.						
	Bit 3	EtherCAT dynamic dictionary creation error. If this error is present EtherCAT Slave Interface remains into BOOT state.						
	Bit 7-4	Unused (always 0)						
	Bit 8	One or more DRIVES SSC interface initialization error. (corresponding DRIVE bitmask is entry " MskErrWsInitSSC ")						
	Bit 9	One or more DRIVES SSC Object Dictionary load error. (corresponding DRIVE bitmask is entry " MskErrLdDrvDict ")						
	Bit 10	One or more DRIVES SSC variables informations setting error. (corresponding DRIVE bitmask is entry " MskErrLdDrvPdoInfo ")						
	Bit 11	One or more DRIVES SSC PDO mapping error. (corresponding DRIVE bitmask is entry " MskErrWsInitPdo ")						
Bit 31-12	Unused (always 0)							

Entry Description 0x5000 0x07								
Index	0x5000							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrWsInitSSC"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that aborted the corresponding SSC Initialization Procedure.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x08								
Index	0x5000							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsDictOK"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that correctly ended the CanOPEN Object Dictionary Exchange Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x09								
Index	0x5000							
Sub-Index	0x09							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrLdDrvDict"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that aborted the CanOPEN Object Dictionary Exchange Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	
Entry Description 0x5000 0x0A								
Index	0x5000							
Sub-Index	0x0A							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsPdoInfoOK"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that correctly ended the Pdo Info Exchange Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x0B								
Index	0x5000							
Sub-Index	0x0B							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrLdDrvPdoInfo"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that aborted the Pdo Info Exchange Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	
Entry Description 0x5000 0x0C								
Index	0x5000							
Sub-Index	0x0C							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsInitPdoOK"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that correctly ended the Initial Pdo Mapping Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x0D								
Index	0x5000							
Sub-Index	0x0D							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrWsInitPdo"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that aborted the Initial Pdo Mapping Procedure with the EtherCAT Interface.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

Entry Description 0x5000 0x0E								
Index	0x5000							
Sub-Index	0x0E							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskErrLive"							
Additional Informations								
Notes	This entry is the bit mask of the EtherCAT Interface Live Errors (error if bit set to 1). If one or more bits are set to 1 the EtherCAT Slave Interface remains/returns in PRE_OPERATIONAL state.							
	Bit 0	Sync Jitter Error. SET in OP state if Sync Event Jitter exceeded relative threshold parameter (this management starts after 10 th Sync Event found). AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If relative management is enabled, an EMCY message is loaded to sent through MailBox on rising edge of this bit.						
	Bit 1	One or more DRIVES in SSC Setup-Mode Error. SET if one or more DRIVES during normal EtherCAT life have their SSC Channels in Setup-Mode instead Running-Mode. This error is not resettable. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.						

Bit 2	<p>One or more DRIVES is not in CanOPEN_NMT_OPERATIONAL State. SET in SAFE_OPERATIONAL or in OPERATIONAL state if one or more DRIVES is not in CanOPEN_NMT_OPERATIONAL state. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 3	<p>Lost One or more DRIVES. SET if "MskWsOkEthLive" < "MskWsOkEthStart". This error is not resettable. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 4	<p>1st DRIVE in alarm. SET if DRIVE is in Alarm Condition AUTORESET if DRIVE exits from Alarm Condition.</p>
Bit 5	<p>2nd DRIVE in alarm. SET if DRIVE is in Alarm Condition AUTORESET if DRIVE exits from Alarm Condition.</p>
Bit 6	<p>3rd DRIVE in alarm. SET if DRIVE is in Alarm Condition AUTORESET if DRIVE exits from Alarm Condition.</p>
Bit 7	Reserved (always 0)
Bit 8	<p>EtherCAT Application or One or More DRIVES Refuse Communication Cycle Period Value. SET during the EtherCAT State Transition from PRE_OPERATIONL to SAFE_OPERATIONAL state if EtherCAT Application or one or more DRIVES refuse the vaule of CANopen Object 0x1006 0x00 (Communication Cycle Period in us). Communication Cycle Period Value is calculated by Application Firwmare from Entry "0x1C32 0x02" value. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 9	<p>Timeout in CANopen NMT Transition to PRE_OPERATIONAL state of One or More DRIVES. SET during the EtherCAT State Transition to PRE_OPERATIONAL state if or one or more DRIVES refuse CANopen NMT ENTER_PRE_OPERATIONAL request. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 10	<p>Timeout in CANopen NMT Transition to OPERATIONAL state of One or More DRIVES. SET during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL/OPERATIONAL state if or one or more DRIVES refuse CANopen NMT START request. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 11	<p>Ethernet PORT_0 LostLinkCount Variation error. SET if there is a value variation of EtherCAT Slave Controller PORT_0 Lost Link Counter register (ESC address 0x0310) and the relative Application SW management is enabled. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If relative management is enabled, an EMCY message is loaded to sent through MailBox on rising edge of this bit. If relative management is enabled, if this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>

Bit 12	<p>Ethernet PORT_1 LostLinkCount Variation error.</p> <p>SET if there is a value variation of EtherCAT Slave Controller PORT_1 Lost Link Counter register (ESC address 0x0311) and the relative Application SW management is enabled.</p> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If relative management is enabled, an EMCY message is loaded to sent through MailBox on rising edge of this bit.</p> <p>If relative management is enabled, if this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 13	<p>Ethernet PORT_0 NoLinkDetection Error.</p> <p>SET if there is no PORT_0 Link Detection Bit in ESC_DL_Status Register (ESC address 0x0110).</p> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If relative management is enabled, on rising edge of this bit an EMCY message is loaded to sent through MailBox and EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p> <p>This control is activated, if enabled, 2.5 seconds after ESC initialization.</p> <p>This bit is polled, subject to SW Loop Latency. For this reason is implemented PORT_0 LostLinkCounter Variation Error management (Bit 11 of current mask) to detect very fast link falls.</p>
Bit 14	<p>One or More DRIVES Refuse Guard Time Value.</p> <p>SET during the EtherCAT State Transition from PRE_OPERATIONL to SAFE_OPERATIONAL state if EtherCAT Application or one or more DRIVES refuse the vaule of CANopen Object 0x100C 0x00 (Guard Time in ms).</p> <p>Guard Time Value is calculated by Application Firwmare from Communication Cycle Period value (see bit 8 of this entry):</p> <pre>GuardTime = 1 + CommCyclePeriod/1000; if (GuardTime < MIN_GUARD_TIME) GuardTime = MIN_GUARD_TIME;</pre> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 15	<p>One or More DRIVES Refuse Life Time Factor Value.</p> <p>SET during the EtherCAT State Transition from PRE_OPERATIONL to SAFE_OPERATIONAL state if EtherCAT Application or one or more DRIVES refuse the vaule of CANopen Object 0x100D 0x00 (Life Time Factor).</p> <p>Life Time Factor Value is written from 1st DRIVE during initial configuration.</p> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 16	<p>1st DRIVESSC checksum Error.</p> <p>SET a SSC checksum error is detected with 1stDRIVE.</p> <p>An EMCY message is loaded to sent through MailBox on rising edge of this bit.</p> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 17	<p>2nd DRIVESSC checksum Error.</p> <p>SET if a SSC checksum error is detected with 2nd DRIVE.</p> <p>An EMCY message is loaded to sent through MailBox on rising edge of this bit.</p> <p>AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>

Bit 18	<p>3rd DRIVESSC checksum Error.</p> <p>SET if a SSC checksum error is detected with 3rd DRIVE. An EMCY message is loaded to sent through MailBox on rising edge of this bit. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 19	Reserved (always 0)
Bit 20	<p>1st DRIVESSC timeout Error.</p> <p>SET a SSC timeout error is detected with 1stDRIVE. An EMCY message is loaded to sent through MailBox on rising edge of this bit. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 21	<p>2nd DRIVESSC timeout Error.</p> <p>SET a SSC timeout error is detected with 2ndDRIVE. An EMCY message is loaded to sent through MailBox on rising edge of this bit. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 22	<p>3rd DRIVESSC timeout Error.</p> <p>SET a SSC timeout error is detected with 3rdDRIVE. An EMCY message is loaded to sent through MailBox on rising edge of this bit. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains/returns into PRE_OPERATIONAL state.</p>
Bit 23	Reserved (always 0)
Bit 24	<p>Missing Sync Error.</p> <p>SET in OP state if Sync Event doesn't run (timeout value is 2*CommCyclePeriod (entry 0x5001 0x08)) if relative management is enabled (entry 0x5002 0x07). AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If relative management is enabled, an EMCY message is loaded to sent through MailBox on rising edge of this bit.</p>
Bit 25	<p>One or More DRIVES Refuse PDO Validation Request.</p> <p>SET during the EtherCAT State Transition from PRE_OPERATIONL to SAFE_OPERATIONAL state if one or more DRIVES refuse the Validation Request of assigned and mapped PDO. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 26	<p>Bad PDO Assign.</p> <p>SET during the EtherCAT State Transition from PRE_OPERATIONL to SAFE_OPERATIONAL state if there is an error on PDO Assign configuration. AUTORESET in state transition PRE_OPERATIONAL to SAFE_OPERATIONAL. If this error is present EtherCAT Slave Interface remains into PRE_OPERATIONAL state.</p>
Bit 31-27	Unused (always 0)

Entry Description 0x5000 0x0F								
Index	0x5000							
Sub-Index	0x0F							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsPreOp"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that are in CanOPEN NMT PRE_OPERATIONAL state.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	
Entry Description 0x5000 0x10								
Index	0x5000							
Sub-Index	0x10							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MskWsOp"							
Additional Informations								
Notes	This entry is the bit-mask of the DRIVES that are in CanOPEN NMT OPERATIONAL state.							
	Bit 31-3		Bit 2		Bit 1		Bit 0	
	Unused (always 0)		3 rd DRIVE		2 nd DRIVE		1 st DRIVE	

1.2.2. Object 0x5001 – debug info: ETHERCAT variables

Object Description	
Index	0x5001
Data Type	RECORD
Max Sub-Index	0x0D
Obj Code	OBJCODE_RECORD
Name	"AS3030 debug info: GENERIC variables"

Entry Description 0x5001 0x00								
Index	0x5001							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x0F							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5001 0x01								
Index	0x5001							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_Enable"							
Additional Informations								
Notes	TRUE se EtherCAT Slave Controller enabled.							

Entry Description 0x5001 0x02								
Index	0x5001							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_AIControl"							
Additional Informations								
Notes	Value ESC AL_Control Register (ESC address 0x0120).							

Entry Description 0x5001 0x03								
Index	0x5001							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_AIStatus"							
Additional Informations								
Notes	Value ESC AL_Status Register (ESC address 0x0130).							

Entry Description 0x5001 0x04								
Index	0x5001							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_AIStatusCode"							
Additional Informations								
Notes	Value written in ESC AL_StatusCode Register (ESC address 0x0134) if there was a state transition depending by the Slave.							

Entry Description 0x5001 0x05								
Index	0x5001							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_Status"							
Additional Informations								
Notes	Value of EtherCAT State Machine.							

Entry Description 0x5001 0x06								
Index	0x5001							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ETH_ResoTrans"							
Additional Informations								
Notes	Return code of the last EtherCAT State Machine Transition request.							

Entry Description 0x5001 0x07								
Index	0x5001							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	SIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ResoETH_Init"							
Additional Informations								
Notes	Return code of the ETH_Init() function.							

Entry Description 0x5001 0x08								
Index	0x5001							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CommCyclePeriod"							
Additional Informations								
Notes	Communication Cycle Period (us) (CanOPEN Object 0x1006 0x00) sent to DRIVES during EtherCAT State Transition PRE_OPERATIONAL to SAFE_OPERATIONAL.							

Entry Description 0x5001 0x09								
Index	0x5001							
Sub-Index	0x09							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"SyncJitterThreshold"							
Additional Informations								
Notes	Sync Event Jitter Threshold (usec/10). Absolute Value.							

Entry Description 0x5001 0x0A								
Index	0x5001							
Sub-Index	0x0A							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"LowSyncTimeThreshold"							
Additional Informations								
Notes	Low Sync Event Jitter Threshold (usec/10).							

Entry Description 0x5001 0x0B								
Index	0x5001							
Sub-Index	0x0B							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"HighSyncTimeThreshold"							
Additional Informations								
Notes	High Sync Event Jitter Threshold (usec/10).							

Entry Description 0x5001 0x0C								
Index	0x5001							
Sub-Index	0x0C							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MinSyncTime"							
Additional Informations								
Notes	Minimum time value measured between two Sync Events (usec/10).							

Entry Description 0x5001 0x0D								
Index	0x5001							
Sub-Index	0x0D							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"MaxSyncTime"							
Additional Informations								
Notes	Maximum time value measured between two Sync Events (usec/10).							

Entry Description 0x5001 0x0E								
Index	0x5001							
Sub-Index	0x0E							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"GuardTime"							
Additional Informations								
Notes	GuardTime (ms) (CanOPEN Object 0x100C 0x00) sent to DRIVES during EtherCAT State Transition PRE_OPERATIONAL to SAFE_OPERATIONAL.							

Entry Description 0x5001 0x0F								
Index	0x5001							
Sub-Index	0x0F							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"LifeTimeFactor"							
Additional Informations								
Notes	LifeTimeFactor (CanOPEN Object 0x100D 0x00) sent to DRIVES during EtherCAT State Transition PRE_OPERATIONAL to SAFE_OPERATIONAL.							

1.2.3. Object 0x5002 – Parameters

Object Description	
Index	0x5002
Data Type	RECORD
Max Sub-Index	0x03
Obj Code	OBJCODE_RECORD
Name	"AS3030 Parameters"

Entry Description 0x5002 0x00								
Index	0x5002							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x08							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5002 0x01								
Index	0x5002							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	Configurable by 1 st DRIVE parameter.							
Min Value	0							
Max Value	1							
Description	"Tx All EMCY Msg Disable"							
Additional Informations								
Notes	This entry, if set to 1, disable the EMCY messages transmission through MailBox.							

Entry Description 0x5002 0x02								
Index	0x5002							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	1							
Description	"Sync Jitter EMCY Enable"							
Additional Informations								
Notes	This entry, if set to 1, enable the corresponding EMCY message when Sync Event Jitter exceeds its relative threshold.							

Entry Description 0x5002 0x03								
Index	0x5002							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	10							
Min Value	1							
Max Value	10							
Description	"Admitted sync jitter percentage"							
Additional Informations								
Notes	This entry is the percentage of Application CycleTime to calculate the Sync Event Jitter Threshold for relative management.							

Entry Description 0x5002 0x04									
Index	0x5002								
Sub-Index	0x04								
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess	
	0	0	0	0	0	1	1	1	
Data Type	UNSIGNED16								
Bit Len	16								
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp	
	0	0	0	0	1	1	1	1	
Default Value	0x0001								
Min Value	0x0000								
Max Value	0x0003								
Description	"Eth Port Lost Link Counter Variation PRE_OP Transition Enable Mask"								
Additional Informations									
Notes	This entry is the enable bitmask for the EtherCAT State Machine Transition to PRE_OPERATIONAL state in case of Value Variation of relative Ethernet PORT_n ESC LostLinkCounter Register. If bit is set transition is enabled.								
	Bit 15-2			Bit 1			Bit 0		
	Unused (always 0)			Enable PORT_1			Enable PORT_0		

Entry Description 0x5002 0x05									
Index	0x5002								
Sub-Index	0x05								
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess	
	0	0	0	0	0	1	1	1	
Data Type	UNSIGNED16								
Bit Len	16								
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp	
	0	0	0	0	1	1	1	1	
Default Value	0x0001								
Min Value	0x0000								
Max Value	0x0003								
Description	"Eth Port Lost Link Counter Variation EMCY Msg Enable Mask"								
Additional Informations									
Notes	This entry is the enable bitmask for the EMCY msg in case of Value Variation of relative Ethernet PORT_n ESC LostLinkCounter Register. If bit is set EMCY msg is enabled.								
	Bit 15-2			Bit 1			Bit 0		
	Unused (always 0)			Enable PORT_1			Enable PORT_0		

Entry Description 0x5002 0x06								
Index	0x5002							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	1							
Min Value	0							
Max Value	1							
Description	"Eth Port0 NoLink EMCY Msg/PRE_OP Transition Enable Mask"							
Additional Informations								
Notes	This entry is the enable (value 1) for the Ethernet PORT_0 NoLinkDetection Management.							

Entry Description 0x5002 0x07								
Index	0x5002							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	0							
Min Value	0							
Max Value	1							
Description	"Sync EMCY Enable"							
Additional Informations								
Notes	This entry is the enable (value 1) for the Missing Sync Verify Management.							

Entry Description 0x5002 0x08								
Index	0x5002							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	1	1	1	1
Default Value	1000000							
Min Value	250							
Max Value	10000000							
Description	"Missing Sync Test Delay in OP"							
Additional Informations								
Notes	This entry is the delay value (uSec) from the start of OPERATIONAL state to the start of Missing Sync Verify Management (if enabled).							

1.2.4. Object 0x5003 – Info Structure

Object Description	
Index	0x5003
Data Type	RECORD
Max Sub-Index	0x03
Obj Code	OBJCODE_RECORD
Name	"Emcy Info Structure"

Entry Description 0x5003 0x00								
Index	0x5003							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x03							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5003 0x01								
Index	0x5003							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Last EMCY Index"							
Additional Informations								
Notes	Index of Last EMCY transmitted from the EtherCAT Slave.							

Entry Description 0x5003 0x02								
Index	0x5003							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Last EMCY Value Low (4 bytes)"							
Additional Informations								
Notes	Last EMCY transmitted from the EtherCAT Slave (LOW 4 bytes).							

Entry Description 0x5003 0x03								
Index	0x5003							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Last EMCY Value High (4 bytes)"							
Additional Informations								
Notes	Last EMCY transmitted from the EtherCAT Slave (HIGH 4 bytes).							

1.2.5. Object 0x5004 – Slave Controller Error Counters

Object Description	
Index	0x5004
Data Type	RECORD
Max Sub-Index	0x08
Obj Code	OBJCODE_RECORD
Name	"EtherCAT Slave Controller Error Counters"

Entry Description 0x5004 0x00								
Index	0x5004							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x08							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5004 0x01								
Index	0x5004							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 0 RX Error Counter"							

Entry Description 0x5004 0x02								
Index	0x5004							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 1 RX Error Counter"							

Entry Description 0x5004 0x03								
Index	0x5004							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 0 Forwarded RX Error Counter"							

Entry Description 0x5004 0x04								
Index	0x5004							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 1 Forwarded RX Error Counter"							

Entry Description 0x5004 0x05								
Index	0x5004							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ECAT Processing Unit Error Counter"							

Entry Description 0x5004 0x06								
Index	0x5004							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"PDI Error Counter"							

Entry Description 0x5004 0x07								
Index	0x5004							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 0 Lost Link Counter"							

Entry Description 0x5004 0x08								
Index	0x5004							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"Port 1 Lost Link Counter"							

1.2.6. Object 0x5005 – board eeprom configuration

Object Description								
Index	0x5005							
Data Type	RECORD							
Max Sub-Index	0x07							
Obj Code	OBJCODE_RECORD							
Name	"ROBOX board eeprom configuration"							
Entry Description 0x5005 0x00								
Index	0x5005							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x07							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							
Entry Description 0x5005 0x01								
Index	0x5005							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	40							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Configuration Response"							
Additional Informations								
Notes	This entry is the Start-Up Check EEPROM Configuration Procedure response. If response is "BAD" the next entries of this object have vaues not significative.							
Values	"OK"	ROBOX board EEPROM valid configuration.						
	"BAD"	ROBOX board EEPROM invalid configuration.						

Entry Description 0x5005 0x02								
Index	0x5005							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	96							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Part Number"							
Additional Informations								
Notes	Part number in ASCII, 0 filled, left justified.							

Entry Description 0x5005 0x03								
Index	0x5005							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	64							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Serial Number"							
Additional Informations								
Notes	Serial number in ASCII, 0 filled, left justified.							

Entry Description 0x5005 0x04								
Index	0x5005							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	160							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Description"							
Additional Informations								
Notes	Description in ASCII, 0 filled, left justified.							

Entry Description 0x5005 0x05								
Index	0x5005							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	12							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Port 0 MAC"							
Additional Informations								
Notes	Ethernet Port 0 MAC Code.							
Entry Description 0x5005 0x06								
Index	0x5005							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	VISIBLE_STRING							
Bit Len	12							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: Port 1 MAC"							
Additional Informations								
Notes	Ethernet Port 1 MAC Code.							
Entry Description 0x5005 0x07								
Index	0x5005							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED16							
Bit Len	16							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ROBOX Cfg: HW Revision"							
Additional Informations								
Notes	Board Hardware Revision Code.							

1.2.7. Object 0x5100 – AS3030 debug info: 1st DRIVE variable

Object Description	
Index	0x5100
Data Type	RECORD
Max Sub-Index	0x07
Obj Code	OBJCODE_RECORD
Name	"AS3030 debug info: 1 st DRIVE variables"

Entry Description 0x5100 0x00								
Index	0x5100							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x08							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5100 0x01								
Index	0x5100							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"EthFaultMsk"							
Additional Informations								
Notes	EtherCAT Interface Fault Mask for DRIVE.							

Entry Description 0x5100 0x02								
Index	0x5100							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"DrvFaultMsk"							
Additional Informations								
Notes	DRIVE Fault Mask.							

Entry Description 0x5100 0x03								
Index	0x5100							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrCksSSC"							
Additional Informations								
Notes	SSC Checksum Error Counter.							

Entry Description 0x5100 0x04								
Index	0x5100							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrTimeOutSSC"							
Additional Informations								
Notes	SSC TimeOut Error Counter.							

Entry Description 0x5100 0x05								
Index	0x5100							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrTimeOutSdo"							
Additional Informations								
Notes	TimeOut on DRIVE SSC SDO Request Error Counter.							
Entry Description 0x5100 0x06								
Index	0x5100							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxRSdoDrv"							
Additional Informations								
Notes	Index of last SDO sent to DRIVE through SSC channel.							
Entry Description 0x5100 0x07								
Index	0x5100							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxTSdoDrv"							
Additional Informations								
Notes	Index of last SDO received from DRIVE through SSC channel.							

Entry Description 0x5100 0x08								
Index	0x5100							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrCh2"							
Additional Informations								
Notes	SSC Channel 2 Abort Operation Error Counter.							

1.2.8. Object 0x5101 – AS3030 debug info: 2nd DRIVE variable

Object Description	
Index	0x5101
Data Type	RECORD
Max Sub-Index	0x07
Obj Code	OBJCODE_RECORD
Name	"AS3030 debug info: 2 nd DRIVE variables"

Entry Description 0x5101 0x00								
Index	0x5101							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	0x08							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5101 0x01								
Index	0x5101							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	Max Value	Min Value	Def Value	Unit Type	Pdo Map	Obj Category	Obj Access
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx Pdo Map	rx Pdo Map	wr Op	wr Safe Op	wr Pre Op	rd Op	rd Safe Op	rd Pre Op
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"EthFaultMsk"							
Additional Informations								
Notes	EtherCAT Interface Fault Mask for DRIVE.							

Entry Description 0x5101 0x02								
Index	0x5101							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"DrvFaultMsk"							
Additional Informations								
Notes	DRIVE Fault Mask.							

Entry Description 0x5101 0x03								
Index	0x5101							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrCksSSC"							
Additional Informations								
Notes	SSC Checksum Error Counter.							

Entry Description 0x5101 0x04								
Index	0x5101							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrTimeOutSSC"							
Additional Informations								
Notes	SSC TimeOut Error Counter.							

Entry Description 0x5101 0x05								
Index	0x5101							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrTimeOutSdo"							
Additional Informations								
Notes	TimeOut on DRIVE SSC SDO Request Error Counter.							

Entry Description 0x5101 0x06								
Index	0x5101							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxRSdoDrv"							
Additional Informations								
Notes	Index of last SDO sent to DRIVE through SSC channel.							

Entry Description 0x5101 0x07								
Index	0x5101							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxTSdoDrv"							
Additional Informations								
Notes	Index of last SDO received from DRIVE through SSC channel.							

Entry Description 0x5101 0x08								
Index	0x5101							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrCh2"							
Additional Informations								
Notes	SSC Channel 2 Abort Operation Error Counter.							

1.2.9. Object 0x5102 – AS3030 debug info: 3rd DRIVE variable

Object Description	
Index	0x5102
Data Type	RECORD
Max Sub-Index	0x07
Obj Code	OBJCODE_RECORD
Name	"AS3030 debug info: 3 rd DRIVE variables"

Entry Description 0x5102 0x00								
Index	0x5102							
Sub-Index	0x00							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED8							
Bit Len	8							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	0x08							
Min Value	-							
Max Value	-							
Description	"Num Of Elements"							

Entry Description 0x5102 0x01								
Index	0x5102							
Sub-Index	0x01							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"EthFaultMsk"							
Additional Informations								
Notes	EtherCAT Interface Fault Mask for DRIVE.							

Entry Description 0x5102 0x02								
Index	0x5102							
Sub-Index	0x02							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"DrvFaultMsk"							
Additional Informations								
Notes	DRIVE Fault Mask.							

Entry Description 0x5102 0x03								
Index	0x5102							
Sub-Index	0x03							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrCksSSC"							
Additional Informations								
Notes	SSC Checksum Error Counter.							

Entry Description 0x5102 0x04								
Index	0x5102							
Sub-Index	0x04							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"ErrTimeOutSSC"							
Additional Informations								
Notes	SSC TimeOut Error Counter.							

Entry Description 0x5102 0x05								
Index	0x5102							
Sub-Index	0x05							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrTimeOutSdo"							
Additional Informations								
Notes	TimeOut on DRIVE SSC SDO Request Error Counter.							
Entry Description 0x5102 0x06								
Index	0x5102							
Sub-Index	0x06							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxRSdoDrv"							
Additional Informations								
Notes	Index of last SDO sent to DRIVE through SSC channel.							
Entry Description 0x5102 0x07								
Index	0x5102							
Sub-Index	0x07							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"FreeIdxTSdoDrv"							
Additional Informations								
Notes	Index of last SDO received from DRIVE through SSC channel.							

Entry Description 0x5102 0x08								
Index	0x5102							
Sub-Index	0x08							
Value Info	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-	MaxValue	MinValue	DefValue	UnitType	PdoMap	ObjCategory	ObjAccess
	0	0	0	0	0	1	1	1
Data Type	UNSIGNED32							
Bit Len	32							
Object Access	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	tx PdoMap	rx PdoMap	wr Op	wr SafeOp	wr PreOp	rd Op	rd SafeOp	rd PreOp
	0	0	0	0	0	1	1	1
Default Value	-							
Min Value	-							
Max Value	-							
Description	"CntErrCh2"							
Additional Informations								
Notes	SSC Channel 2 Abort Operation Error Counter.							

1.3. Emergency Messages (EMCY)

1.3.1. General EMCY

No Error							
Description	This message is sent when all alarms are cleared.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific	ManSpecific	ManSpecific	ManSpecific	ManSpecific	ManSpecific
0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00

1.3.2. EtherCAT Interface Sync Manager Configuration EMCY

Sync Manager Configuration Error							
Description	This message is sent when a EtherCAT State Machine Transition is request with bad Sync Manager Configuration Parameter. In this situation the transition is aborted and the PRE_OPERATIONAL or INIT state is set dependig if the error is relative to Input/Output Sync Managers or MailBox Sync Managers.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	ManSpecific
0x00	0xA0	ETH_AIStatus	ERROR_SYNCMANCH (code, channel)				

1.3.3. EtherCAT Interface Device Specific EMCY

NOTES:

if one DRIVE generates an EMCY msg, EMCY's ManufacturerSpecific[0] byte contains the number of DRIVE (0x01 if 1st DRIVE, 0x02 if 2nd DRIVE, 0x03 if 3rd DRIVE).

if EtherCAT Interface generates a DeviceSpecific EMCY msg (ErrorCode = 0xFF80), EMCY's ManufacturerSpecific[0] byte contains value 0xFF.

Load DRIVES CanOPEN Dictionary Error							
Description	This message is sent if one or more DRIVES abort theStart-Up CanOPEN Object Dictionary Exchange Procedure with the EtherCAT Interface. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state and refused state transition upper the PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	ManSpecific
0x80	0xFF	0x01	0xFF	0x01	0xC0	MskWsDictOK	MskErrLdDrvDict

Load DRIVES PDO Informations Error							
Description	This message is sent if one or more DRIVES abort the Start-Up/Run Time Pdo Info Exchange Procedure with the EtherCAT Interface. In Run Time this situation can happen only during EtherCAT Slave Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL. In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state and refused state transition upper the PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x02	0xC0	MskWsPdoInfoOK	MskErrLdDrvPdoInfo
Load DRIVES Initial PDO Mapping Error							
Description	This message is sent if one or more DRIVES abort the Start-Up Initial Pdo Mapping Procedure with the EtherCAT Interface. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state and refused state transition upper the PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x03	0xC0	MskWsInitPdoOK	MskErrWsInitPdo
One or More DRIVES In SSC Set-Up Mode							
Description	This message is sent if one or more DRIVES go in SSC Set-Up Mode during normal EtherCAT Life. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state and refused state transition upper the PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x04	0xC0	MskWsRunning	MskWsSetUp
One or More DRIVES Lost							
Description	This message is sent if one or more DRIVES lose their initial communication conditions normal EtherCAT Life. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state and refused state transition upper the PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x05	0xC0	MskWsOkEthStart	MskWsLost

One or More DRIVES Not in OPERATIONAL							
Description	This message is sent if one or more DRIVES, in EtherCAT SAFE_OPERATIONAL or OPERATIONAL State, lose their CanOPEN NMT OPERATIONAL State. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x06	0x40	MskWsOp	MskWsNotInOp

Sync Event Jitter Error							
Description	This message is sent if Event Jitter exceeds its relative threshold in EtherCAT SAFE_OPERATIONAL or OPERATIONAL State, only if this management is enabled. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x07	0x40	0x00	0x00

EtherCAT Application or One or More DRIVES Refuse Communication Cycle Period Value							
Description	This message is sent if EtherCAT Application or one or more DRIVES refuse the value of CANopen Object 0x1006 0x00 (Communication Cycle Period in us) during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL state. Communication Cycle Period Value is calculated by Application Firmware from Entry "0x1C32 0x02" value. In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x08	0x40	Byte0(Comm CyclePeriod)	Byte1(Comm CyclePeriod)

Timeout in CANopen NMT Transition to PRE_OPERATIONAL state of One or More DRIVES							
Description	This message is sent during the EtherCAT State Transition to PRE_OPERATIONAL state if or one or more DRIVES refuse CANopen NMT ENTER_PRE_OPERATIONAL request. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x09	0x40	MskWsPreOp	MskWsNotInPreOp

Timeout in CANopen NMT Transition to OPERATIONAL state of One or More DRIVES							
Description	This message is sent during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL/OPERATIONAL state if or one or more DRIVES refuse CANopen NMT START request. In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4	
0x80	0xFF	0x01	0xFF	0x0A	0x40	MskWsOp	MskWsNotInOp

Lost Link Error On ETH PORT_0							
Description	This message is sent if PORT_0 LostLinkCounterRegister Value is changed (ESC address 0x0310) , only if this management is enabled. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x0B	0x00	Act Value P0_LostLink Cnt	Old Value P0_LostLink Cnt

Lost Link Error On ETH PORT_1							
Description	This message is sent if PORT_1 LostLinkCounterRegister Value is changed (ESC address 0x0311) , only if this management is enabled. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x0C	0x00	Act Value P1_LostLink Cnt	Old Value P1_LostLink Cnt

No Link Detection Error On ETH PORT_0							
Description	This message is sent if there is no PORT_0 Link Detection Bit in ESC_DL_Status Register (ESC address 0x0110). In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x0D	0x00	0x00	0x00

1 st DRIVE SSC Checksum Error							
Description	This message is sent if aSSC checksum error is detected with 1 st DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x0E	0x00	ErrCksSSC	

2 nd DRIVE SSC Checksum Error							
Description	This message is sent if aSSC checksum error is detected with 2 nd DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x0F	0x00	ErrCksSSC	

3 rd DRIVE SSC Checksum Error							
Description	This message is sent if aSSC checksum error is detected with 3 rd DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code	Error Register		ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x10	0x00	ErrCksSSC	

One or More DRIVES Refuse Guard Time Value							
Description	This message is sent if one or more DRIVES refuse the vaule of CANopen Object 0x100C 0x00 (Guard Time in ms) during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL state. Guard Time Value is calculated by Application Firwmare from Communication Cycle Period value: $GuardTime = 1 + CommCyclePeriod/1000;$ if (GuardTime < MIN_GUARD_TIME) GuardTime = MIN_GUARD_TIME; In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x12	0x40	GuardTime	

One or More DRIVES Refuse Life Time Factor Value							
Description	This message is sent if one or more DRIVES refuse the vaule of CANopen Object 0x100D 0x00 (Life Time Factor) during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL state. Life Time Factor Value is written from 1 st DRIVE during initial configuration. In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x13	0x40	LifeTimeFactor	

1 st DRIVE SSC Timeout Error							
Description	This message is sent if aSSC timeout error is detected with 1 st DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x14	0xC0	ErrTimeOutSSC	

2 nd DRIVE SSC Timeout Error							
Description	This message is sent if aSSC timeout error is detected with 2 nd DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x15	0xC0	ErrTimeOutSSC	

3 rd DRIVE SSC Timeout Error							
Description	This message is sent if aSSC timeout error is detected with 3 rd DRIVE. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state. This alarm is not resettable.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x16	0xC0	ErrTimeOutSSC	

Missing Sync Error							
Description	This message is sent if aMissing Sync error is detected (if relative management is enabled). In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x18	0x40	0x00	0x00

One or More DRIVES Refuse Pdo Validation Request							
Description	This message is sent if one or more DRIVES refuse the Validation Request of assigned and mapped PDO during the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL state. In this situation the EtherCAT Slave Interface remains in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x19	0x40	0x00	0x00

Pdo Assign Error							
Description	This message is sent if there is an error on PDO Assign Configurationduring the EtherCAT State Transition from PRE_OPERATIONAL to SAFE_OPERATIONAL state. In this situation the EtherCAT Slave Interface goes in PRE_OPERATIONAL state.						
Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Error Code		Error Register	ManSpecific 0	ManSpecific 1	ManSpecific 2	ManSpecific 3	ManSpecific 4
0x80	0xFF	0x01	0xFF	0x1A	0x40	0x00	0x00

2 Revision history of the User Manual

Rev. 0.0 First edition

For other informations log into website www.sbcelettronica.com. Arranges to the manual data can be made by the manufacturer without advance notice. The data shown in the manual correspond to the specifications relating to the revision date



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