Revised Date: 2022/06/01

The following are the AX58400 EtherCAT Slave Controller SoC Slave Information Interface (SII) Area information for customers to modify the AX58200 EtherCAT Slave Information (ESI) file. Please refer to *Section 2.45.4.3 "EEPROM Contents Detailed Descriptions" of AX58400 Datasheet* for details of AX58400 ESC Configuration Area definition.

ESC SII Field	Length (Bytes)	Default Value	Descriptions
ESC Configuration Area (EEPROM Byte Offset 0x0D - 0x00)	14	-	Refer to Table 4: AX58400 ESC Configuration Area Table or assigned by customers based on their exact applications
Vendor ID	4	0x00000B95	ASIX's Vendor ID assigned by ETG or assigned by customers based on their own ETG Vendor ID
Product Code	4	-	Refer to Table 2: AX58400 Product Code Field Definition Table, Table 3: AX58400 Recommended Product Code Table or assigned by customers based on their own Product Code
Revision Number	4	-	ASIX assigned revision number or assigned by customers based on their own requirements This field should be increased on the revised firmware or ESI file in Table 5.
Serial Number	4	0x00000000	Assigned an unique Serial Number for each device by vendor 0 if there is no serial number given

Table 1. AX58200 SII (Salve Information Interface) Area Table

The following is an example of AX58400-TSB-1(Test Board) ESI file.

```
<Vendor>
        <Id>#x00000b95</Id>
        <Name>ASIX Electronics Corporation</Name>
        <ImageData16x14>424D3603000000…</ImageData16x14>
</Vendor>

<Devices>
        <Device Physics="YY">
        <Type RevisionNo="#x90000800" RevisionNo="#x00110001">AX58400_GPIO_8Bit_AIO_16Bit</Type>
        <Name>AX58400_GPIO_8Bit_AIO_16Bit</Name>

<Eeprom>
        <ByteSize>2048</ByteSize>
        <ConfigData>050E03440A00000000001A000000</ConfigData>
        <BootStrap>0010800080108000</BootStrap>
</Eeprom>
```


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For 3rd port included,

<Devices>
<Device Physics="YYY">
<Type RevisionNo="#x90000801" RevisionNo="#x00110001">AX58400_GPIO_8Bit_AIO_16Bit with 3rd Port</Type>
<Name>AX58400_GPIO_8Bit_AIO_16Bit with 3rd Port</Name

Bit	Description
31:28	***9h: AX58400 EtherCAT Slave Controller SoC*** 8h: AX58200EtherCAT Slave Controller SoC others: Reserved
27:8	**Application Type** This field defines the application type. 00000h: No specific/identified application (default) 00001h: Multi-function application 00002h: Digital I/O Control 00003h: Motion/Motor Control 00004h: Sensors Data Acquisition 00005h: Communication Module 00006h: PC Card 00007h: 3-port EtherCAT Junction Slave 00008h: Digital/Analog I/O 00009h: IO-Link Gateway 0000Ah: Vision Sensor/Smart Camera others: Reserved
7:4	**Number of Port for Application** 0h: default (see Note) 1h: 4 ports 2h: 2 ports others: Reserved Note: default for IOLink gateway is 8 ports.
3:0	**Vendor Specific Configuration/Sub-Application Type** This field defines the vendor specific requirements or Sub-application type. 0h: No specific requirement (default) 1h: EtherCAT 3rd port enabled others: Reserved

Table 2. AX58400 Product Code Field Definition Table

Board Name	Product Code	Descriptions
AX58400-TSB-1	0x90000800	Digital/Analog I/O
AX58400-TSB-1	0x90000300	Motor Control

Table 3. AX58400 Recommended Product Code Table

ESC Configuration Area	Value	Descriptions
AX58400-TSB-1	050E03440A00000000001A000000	Digital/Analog I/O
AX58400-TSB-1	050E03440A00000000001A000000	Motor Control

Table 4. AX58400 Recommended ESC Configuration Area (EEPROM Byte Offset 0x0D - 0x00) Table

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Bit	Description
31:24	Reserved (00h)
23:20	The filed is reserved by AX58400 Expansion Board Reference Schematic 0h: No specific requirement (default) 1h: AX58400-EXB-ADIO-1 2h: AX58400-TSB-1 + X-NUCLEO-IHM08M1 3h: AX58400-EXB-CAMERA others: Reserved
19:16	The filed is reserved by AX58400 Evaluation Board Reference Schematic 0h: No specific requirement (default) 1h: AX58400-TSB-1 others: Reserved
15:0	The filed is reserved by application firmware version information

Table 5. AX58400 Revision Number Field Definition Table

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Revision History

Revision	Date	Description
0.10	2021/05/11	Preliminary release
0.20	2021/08/05	Add the definition of application with 3rd port and definition with AX58400-EXB-CAMERA
0.30	2022/06/01	Add the number of port IO-Link gateway in the field of Sub-Application Type

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