

ED1000/LSI-11 Interface ES1844c

ES1844c is an interface for adapting the peripherals-oriented ED1000 system bus to the Q-Bus. The ED1000 is an industrial I/O system developed and supported by ABB Industry AG in Switzerland.

Compatibility	All platforms
Features of the emulated device	<p>Interaction with the ED1000 system bus is performed by means of the ED1000/Ethernet interface EDET210. On-board jumpers of the real interface are modelled by the configuration parameters.</p> <p>The emulator can function either in standard or Asynchronous Block Transfer (ABT) modes. In the standard mode it is ES1844c compatible. The ABT mode is an extension of the real device made in order to improve the performance. Reserved bits 1-4 are used for this purpose.</p> <p>The ABT mode of operation could be selected by the software by setting bit 1 in the Control and Status Register. When working in this mode, the application should build an EDET210 TCP/IP packet in the mapped window, which is used as a buffer in this mode. When this is done, the application can start the transfer by setting the ABT bit. The packet will be sent by the emulator to the EDET210 card 'as is' in an asynchronous manner. When the transfer is completed, the bit 3 will be set and application can read the reply from the buffer. Bit 2 in the Status Register determines whether the emulator will generate an interrupt on request completion or not. Bit 4 is an error flag and set by the device if an error occurred during the transfer. To leave the ABT mode the application should clear bit 1. Current transfer will be canceled. Contact with the COMPUTRONIC, Baden CH for information about the EDET210. Protocol.</p>
Configuration parameters	The standard set of parameters for any bus device plus a set of specific ones described in Table 4-1.
Special requirements	The EDET210 interface card should be installed to the ED1000 system rack and connected to the network. Refer to the documentation set provided by the ABB Industrie AG.
Unsupported functionality	<ul style="list-style-type: none"> • Transfer of interrupts from the ED1000 system bus. • Recognition of odd addressing of ED1000 peripherals.
Charon name	

Table: Configuration Parameters of ES1844c

<i>Parameter</i>	<i>Type</i>	<i>Description</i>	<i>Default value</i>
IP_ADDRESS	String	Dot-formatted address string or host name of the EDET210 card.	"EDET210"
IP_PORT	Number	The port number of EDET210	1600.
BASE_ADDR	Number	Start 22-bit address of the ES1844 window (jumpers A12-A17 and BS7).	017760000
STATIC_WINDOW	Boolean	Value NO means that the size of the ES1844c window is 16K and bits AD12 and AD13 of the Status Register will be used when constructing the real ED1000 address. Value YES means that the window is 4K and its layout is controlled by the WINDOW parameter.	YES
WINDOW	Number	Layout of the ES1844c address window	020000

WINDOW_SIZE	Number	(jumpers AS12 0/1 and AD13 0/1 when both are set to static). Size of the ES1844c window (jumpers 4096. BS7 and 16K). Should be ether 4096. Or 16384.	4096.
SR10	Number	Offset of the Status Register in the window. Should be ether 0 or 010.	010
NEW_PROTOCOL	Boolean	If set to YES the new protocol (with the telegram length) should be used when communicating with EDET210. If NO – the old one (with the sequence number and spare bytes).	No
TIMEOUT	Number	The maximum time in milliseconds for connect to wait	3000