

PORTS/16em EIA-422 Pin Assignments

V.11	Signal	Description	DB-25*
TxDB	TxD+	Positive Transmit	2
RxDB	RxD+	Positive Receive	3
RTSB	RTS+	Positive Request To Send	4
CTSB	CTS+	Positive Clear To Send	5
	GND	Ground	7
CTSA	CTS-	Negative Clear To Send	13
TxDA	TxD-	Negative Transmit	14
RxDA	RxD-	Negative Receive	16
RTSA	RTS-	Negative Request To Send	19

*All other DB-25 pins are not populated.

For more detailed cabling information, refer to the material packaged with the Xem host adapter, or Digi's web site at: www.digi.com.

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AccelePort Xem System

*PORTS/8em and PORTS/16em Modules
EIA-232 and EIA-422*

Hardware Information

Introduction

AccelePort® PORTS/8em™ and PORTS/16em™ modules work with any Digi adapter or concentrator that employs Digi's EBI (External Bus Interface) bus. This includes the following Digi products:

- AccelePort Xem™ adapters (EBI bus is available directly from the adapter to EBI bus modules like PORTS/Xem™ or Modem/Xem™)
 - Modem/Xem modules or other PORTS/Xem modules (the EBI bus is used between modules)
 - EPC/CON-16™ concentrators (the EBI bus is available on each concentrator)
 - PortServer II™ terminal servers (the EBI bus is available on each terminal server)
- Installation Guidelines

Installation Guidelines

There are just a few things to remember as you install a PORTS/8em or PORTS/16em module:

Number of modules

Several PORTS/Xem modules can be cabled to one EBI bus. The EBI bus available on EPC/CON-16 concentrators and PortServer II terminal servers supports three PORTS/Xem modules. Xem host adapters support four modules.

EBI cabling

Caution: When attaching or removing EBI cables to/from the PORTS/Xem modules, host system power must be OFF, and any auxiliary power connection to the module removed, to prevent damage to the modules.

To cable a PORTS/Xem module to the EBI bus, the EBI cable (from an Xem adapter, from an EPC/CON-16 concentrator, or from another PORTS/Xem or Modem/Xem module) is attached to the EBI IN connector. Use the EBI OUT connector to attach an EBI cable to the next module in the stack.

Note: You must use the daisy-chain cables that come with the PORTS/Xem module; the cables cannot be extended.

Power

PORTS/Xem modules can obtain power from the EBI bus. There are several rules to keep in mind when considering PORTS/Xem power supplies.

PORTS/Xem Power Supply Rules:

- The EBI bus generally supplies enough power for one EIA-422 PORTS/Xem module or two EIA-232 EBI modules.
- An EIA-422 PORTS/Xem module always require power unless it is the first module attached to the EBI bus.
- You must plug an PORTS/Xem power supply into the PORTS/Xem module *before* plugging it into an AC receptacle.
- The LED indicator on the side panel of an PORTS/Xem module will light if there is sufficient power for the module.
- Putting EIA-422 PORTS/Xem modules at the end of a chain of PORTS/Xem modules will reduce the number of power supplies needed.

Consult the following tables to determine if you need additional power supplies.

Power Supply Requirements for PORTS/Xem Modules on Xem Adapters

EIA-232 Modules Only	EIA-232			
	EIA-232	EIA-232		
	EIA-232	EIA-232	EIA-232 P	
	EIA-232	EIA-232	EIA-232 P	EIA-232 P
EIA-422 Modules Only	EIA-422			
	EIA-422	EIA-422 P		
	EIA-422	EIA-422 P	EIA-422 P	
	EIA-422	EIA-422 P	EIA-422 P	EIA-422 P
EIA-232 and EIA-422 Modules	EIA-232	EIA-422 P		
	EIA-232	EIA-232	EIA-422 P	
	EIA-232	EIA-232	EIA-232 P	EIA-422 P
	EIA-232	EIA-422 P	EIA-422 P	
	EIA-232	EIA-232	EIA-422 P	EIA-422 P
	EIA-232	EIA-422 P	EIA-422 P	EIA-422 P

P indicates that a power supply is required.

Power Supply Requirements for PORTS/Xem Modules on PortServer II or EPC/CON-16 Units

EIA-232 Modules Only	EIA-232		
	EIA-232	EIA-232	
	EIA-232	EIA-232	EIA-232
EIA-422 Modules Only	EIA-422		
	EIA-422	EIA-422 P	
	EIA-422	EIA-422 P	EIA-422 P
EIA-232 and EIA-422 Modules	EIA-232	EIA-422 P	
	EIA-232	EIA-422 P	EIA-422 P
	EIA-232	EIA-232	EIA-422 P

P indicates that a power supply is required.

Note: Power supplies are not normally shipped with EIA-232 PORTS/Xem modules when the modules are ordered individually and not as part of a host adapter and module package. EIA-422 PORTS/Xem modules ship with a power supply. Auxiliary power supplies are available for purchase from Digi.

Adding modules to an existing installation

- When you add PORTS/Xem modules to an existing installation, you may need to reconfigure or reinstall the device driver on the host system before the additional ports are recognized by the system.
- Be sure to power off the host system when you are attaching (or removing) EBI cables going to PORTS/Xem modules.

Connecting peripherals

PORTS/Xem modules are available in the following models:

Available PORTS/Xem EBI Modules

8EM	EIA-232	DB-25 connectors
8EM	EIA-232	RJ-45 connectors
16EM	EIA-232	DB-25 connectors
16EM	EIA-232	RJ-45 connectors
16EM	EIA-422	DB-25 connectors

The connector type that you need at either end of the peripheral cable depends on the PORTS/Xem model you have and the type of connector on the peripheral.

PORTS/8em and 16em EIA-232 Connector Pin Assignments

DB-25 Pin assignments			RJ-45 Pin Assignment		
Signal	Description	Pin	Signal	Description	Pin
GND	Chassis Ground	1*	RI	Ring Indicator	1
TxD	Transmitted Data	2	DSR	Data Set Ready	2†
RxD	Received Data	3	RTS	Request To Send	3
RTS	Request To Send	4	GND	Chassis Ground	4
CTS	Clear To Send	5	TxD	Transmitted Data	5
DSR	Data Set Ready	6	RxD	Received Data	6
SG	Signal Ground	7	SG	Signal Ground	7
DCD	Data Carrier Detect	8	CTS	Clear To Send	8
DTR	Data Terminal Ready	20	DTR	Data Terminal Ready	9
RI	Ring Indicator	22	DCD	Data Carrier Detect	10

* Chassis Ground is also available on the connector shell

† In some operating systems this pin can be configured as DCD. This would be pin 1 of an 8-pin connector.