

BANDIT III Hardware Specifications

This appendix lists the specifications for the BANDIT III™. See the following:

- ◆ [Section A.1, Pin Configurations](#)
- ◆ [Section A.2, Port Speeds](#)
- ◆ [Section A.3, Chassis Specifications](#)
- ◆ [Section A.4, Standards Compliance](#)

A.1 Pin Configurations

See the following for information about pin configurations:

- ◆ [Section A.1.1, DB9 Supervisory Port](#)
- ◆ [Section A.1.2, RJ11 Modem Port](#)
- ◆ [Section A.1.3, RJ45 10/100-Base-T Ethernet Port](#)
- ◆ [Section A.1.4, Alarm Port](#)
- ◆ [Section A.1.5, DB25 Port](#)
- ◆ [Section A.1.6, RJ48 Ports](#)

A.1.1 DB9 Supervisory Port

[Figure A-1](#) identifies the pin locations for a female DB9 connector. [Table A-1](#) lists the standard DB9 pin configuration.

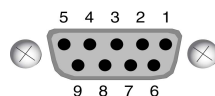


Figure A-1. Pin Locations for Female DB9 Port

Table A-1. DB9 Serial Port Pin Configuration

Pin Number ^a	EIA ^b Signal (only DCE)	Description
1	DCD	Data carrier detect
2	RXD	Received data
3	TXD	Transmitted data
4	DTR	Data terminal ready
5	GND	Signal ground
7	RTS	Request to send
8	CTS	Clear to send

a. Unused pins are not listed.

b. EIA = Electronic Industries Alliance

A.1.2 RJ11 Modem Port

Figure A-2 shows the pin locations for the modem port. Table A-2 lists the pin configuration for the BANDIT III's RJ11 modem port.

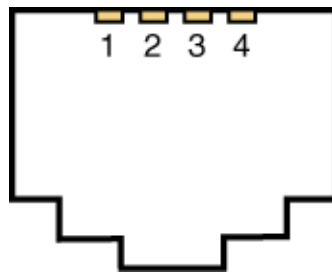


Figure A-2. Pin Locations for Female RJ11 Modem Port

Table A-2. RJ11 Modem Port Pin Configuration

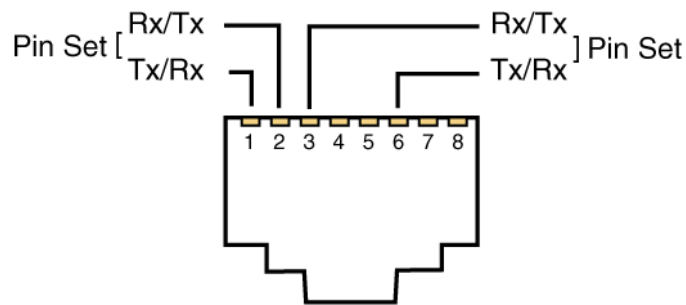
Pin Number ^a	Function
2	Ring
3	Tip

a. Unused pins are not listed.

A.1.3 RJ45 10/100-Base-T Ethernet Port

Figure A-3 shows the pin locations on an RJ45 Ethernet port. Table A-3 lists the pin configuration for the BANDIT III's 10/100-Base-T Ethernet ports.

Note: Note that the BANDIT III senses the pin configuration at the remote end of the connection and sets its own pin configuration accordingly.



Each pin set autosenses and adjusts to signals from the device at the remote end of the connection.

Figure A-3. Pin Locations for Female RJ45 Ethernet Connector

Table A-3. 10/100-Base-T Ethernet Port Pin Configuration in BANDIT III

Pin Set ^a	Description ^b
1 and 2	Tx or Rx
3 and 6	Rx or Tx

a. Unused pins are not listed.

b. The BANDIT III Ethernet connectors are autosensing and will adjust to the signals from the device at the remote end of the connection.

A.1.4 Alarm Port

Figure A-4 shows the pin numbering for the BANDIT III's alarm port. Table A-4 lists the pin configuration for the BANDIT III's alarm port. The Alarm port uses an industry-standard dry-contacts cable.

Note: To configure the alarm port, see [Configuring Alarm Ports in the BANDIT III](#).

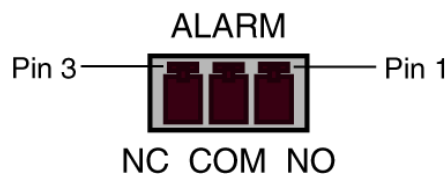


Figure A-4. Pin Locations for BANDIT III Female Alarm Port

Table A-4. Alarm Port Pin Configuration

Pin Number ^a	Status ^b
1	Normally open
2	Common
3	Normally closed

a. Unused pins are not listed.

b. Statuses are listed for the Alarm port's Normal (no-alarm) state. In the Ring (alarm) state, pin 1 is closed (connected to pin 2), and pin 3 is open.

A.1.5 DB25 Port

Figure A-5 identifies the pin locations for a female DB25 connector.

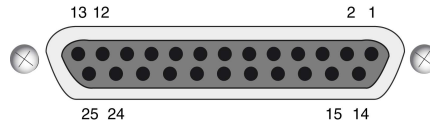


Figure A-5. Pin Locations for Female DB25 Port

Table A-5 lists the pin configuration for the BANDIT III's standard DB25 port and for the four DB25 ports of the BANDIT III's Internal Data Unit (IDU).

Note: The BANDIT III can hold an expansion port with an HD26 serial port. For that port's specifications, see [HD26 Serial Port Specifications](#).

Table A-5. BANDIT III Standard DB25 Serial Port Pin Configuration and IDU DB25 Serial Port Pin Configuration

Pin Number ^a	EIA ^b Signal (DCE or DTE ^c)	Description
Pin 1		Shield (Earth Ground)
Pin 2	TXD	Transmitted data
Pin 3	RXD	Received data
Pin 4	RTS	Request to send
Pin 5	CTS	Clear to send
Pin 6	DSR	Data set ready
Pin 7	GND	Signal ground
Pin 8	DCD	Data carrier detect
Pin 15	TXC	Transmit clock
Pin 17	RXC	Receive clock
Pin 20	DTR	Data terminal ready
Pin 24	SCTE	External clock

a. Unused pins are not listed.

b. EIA = Electronic Industries Alliance

c. You can use the BANDIT III's ELIOS software to select DCE or DTE for this port.

Note: On the BANDIT III and the BANDIT II, you use the ELIOS software to set the DB25 serial port as DCE or DTE. For DB25 ports on other BANDIT chassis, the DB25 port is DCE; you must use a cable to make it DTE. For information on DB25 cables for earlier BANDIT models, see the *BANDIT Products Software Configuration and Maintenance Guide*.

Note: The serial-port expansion card (for BANDIT products) uses an HD26 serial port. For information, see [HD26 Serial Port Specifications](#).

A.1.6 RJ48 Ports

See the following:

- ◆ RJ48S CSU/DSU Port
- ◆ RJ48C T1/E1 CSU/DSU Port

A.1.6.1 RJ48S CSU/DSU Port

Figure A-6 shows the pin locations on an RJ48S 56k CSU/DSU port. Table A-6 lists the pin configuration for the RJ48S CSU/DSU port.

Note: The connection must use a shielded twisted-pair cable. Recommended wire gauge and resistance are 22 AWG and 100 ohm.

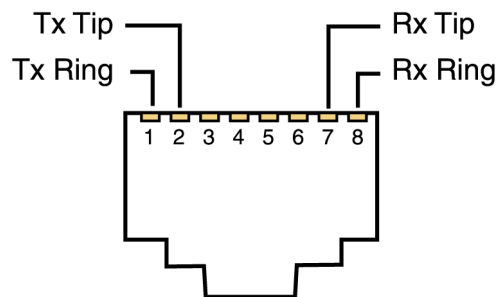


Figure A-6. Pin Locations and Configuration for Female RJ48S CSU/DSU Connector

Table A-6. CSU/DSU RJ48S Pin Configuration

Pin ^a	Function
1	Tx Ring (to Network)
2	Tx Tip (to Network)
7	Rx Tip (from Network)
8	Rx Ring (from Network)

a. Unused pins are not listed.

Table A-7. 56/64 kbps CSU/DSU Port Interface

Port	Connector
<ul style="list-style-type: none"> • 56/64 kbps internal CSU/DSU 	<ul style="list-style-type: none"> • RJ48S connector: <ul style="list-style-type: none"> ◆ Bipolar Return-to-Zero using an eight-position modular RJ48S or CA48S (Canada) jack, to allow easy installation

A.1.6.2 RJ48C T1/E1 CSU/DSU Port

Figure A-7 shows the pin locations on an RJ48C T1/E1 CSU/DSU port. Table A-8 lists the pin configuration for the RJ48C T1/E1 CSU/DSU port. Table A-9 lists the specifications for the RJ48C T1/E1 CSU/DSU port.

Note: The connection must use a shielded twisted-pair cable. Recommended wire gauge and resistance are 22 AWG and 100 ohm.

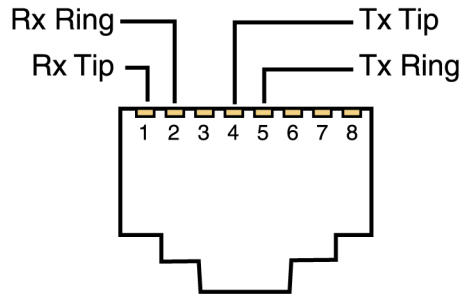


Figure A-7. Pin Locations and Configuration for Female 48C T1/E1 Connector

Table A-8. T1/E1 RJ48C Pin Configuration

Pin ^a	Function
1	Rx Tip
2	Rx Ring
4	Tx Tip
5	Tx Ring

a. Unused pins are not listed.

Table A-9. T1/E1 CSU/DSU RJ48C Port Specifications

Specification	T1	E1
Line speed	1.544 Mbps	2.048 Mbps
Data speed	1.536 Mbps (24 channels at 64 kbps each)	1.920 Mbps (30 channels at 64 kbps each)
Resistance	100 ohms, balanced	120 ohms, balanced
Standards	G.703, G.704 ANSI T1.408 Channelized or Unchannelized	G.703, G.704, G.732 Channelized or Unchannelized

A.2 Port Speeds

For all serial ports, more than 230 kbps is not supported. The serial ports can support async speed down to 50 bps.

For all ports, the sync speed range is 2400 bps to 256 kbps.

[Table A-10](#) and [Table A-11](#) provide details for port speeds.

Table A-10. Port Speeds, Synchronous

Synchronous (Bits/Second)
256,000
192,000
128,000
96,000
64,000
56,000
48,000
38,400
19,200
9,600
4,800
2,400

Table A-11. Asynchronous Port Speeds for All Serial Ports on the BANDIT III

Asynchronous (Bits/Second)
230,400
115,200
57,600
48,000
38,400
19,200
9,600
4,800
2,400
1,200
600
300
200
110
50

A.3 Chassis Specifications

The following sections cover the physical, power, and environmental specifications for the BANDIT III chassis.

A.3.1 Physical Specifications

The products in the BANDIT family are designed for quick and easy integration with other equipment in a typical networking environment. [Table A-12](#) provides the physical specifications of the BANDIT III.

Table A-12. Physical Specifications, BANDIT III Chassis

Measurement	BANDIT III
Height ^a	2.375 in. (6.0 cm) ^a
Width	10.375 in. (26.4 cm)
Depth	7.50 in. (19.1 cm)
Weight	2.25 lb. (1.02 kg)
Installation Type	Tabletop

a. When the height of the chassis feet (0.25 inches, 0.7 cm) is included, the chassis stands 2.625 inches (6.7 cm) high.

A.3.2 Power

The BANDIT III is available in models for DC input or for an external power supply that uses AC input. The AC power supply accepts input power at 110 to 220 volts AC, 50 to 60 Hz, auto-ranging, and delivers 5 volts DC at 3 amps output to the BANDIT III chassis.

The DC power supply accepts input power of -12 to -24 volts DC or -24 to -48 volts DC. The BANDIT III chassis converts this power to 5 volts DC or lower for its use.

Note: A DC chassis can accept both AC and DC power input (but not at the same time). When one power source fails, power is accepted from the other power source.

A.3.3 Environmental Specifications

[Table A-13](#) provides the environmental specifications for the BANDIT III.

Table A-13. BANDIT III Environmental Specifications

Measurement	Specification
Temperature	Operating Temperature: -40°F to 185°F (-40°C to 85°C); no fans Non-Operating Temperature: -40°F to 185°F (-40°C to 85°C)
Humidity	10% to 95% non-condensing
Altitude	Up to 10,000 ft. (3,048 m)

A.4 Standards Compliance

The BANDIT III complies with the agency standards listed in [Table A-14](#).

Table A-14. BANDIT III Standards Compliance

Compliance	Agency
Environmental	ROHS-compliant
Electromagnetic Compatibility (EMC)	FCC Part 15 EN 55011/CISPR 11 IEC 61850-3 IEEE 1613
Product Safety	UL/CSA 60950-1 CAN/CSA-C22.2 No. 60950-1-03 EN 60950-1

