

Appendix A

Specifications

This appendix lists the specifications for the Remote Data Unit. It also lists specifications for the BANDIT Plus and the VSR-1200. For a list of specification for all BANDIT products, see the *BANDIT Products Hardware Reference Guide*.

A.1 RDU Specifications

The following sections cover the physical, power, and environmental specifications for the Remote Data Unit.

A.1.1 RDU Physical Specifications

The RDU is designed for quick and easy integration with the BANDIT Plus or the VSR-1200 and other equipment in a typical networking environment. [Table A-1](#) provides the physical specifications of the unit.

Table A-1. Physical Specifications, Remote Data Unit (1 of 2)

Measurement	VSR-1200
Height	1U (1.75 in.; 4.45 cm)

Table A-1. Physical Specifications, Remote Data Unit (2 of 2)

Measurement	VSR-1200
Width	19 in. (48.26 cm)
Depth	8.3 in. (21.08 cm)
Weight	4 lb. (1.81 kg)
Installation Type	Rackmount

A.1.2 RDU Power

The RDU's power supply is 100 to 240 VAC, 50–60 Hz, auto-ranging, with a locking connector. The RDU's power consumption is 10 watts AC; its power supply delivers 3.3 volts DC to the RDU.

A.1.3 RDU Environmental Specifications

[Table A-4](#) provides the environmental specifications for the RDU.

Table A-2. Environmental Specifications

Item	Specification
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 85% non-condensing
Altitude	Up to 10,000 ft. (3,048 m)

A.2 BANDIT Plus and VSR-1200 Chassis Specifications

The following sections cover the physical, power, and environmental specifications for the BANDIT Plus and VSR-1200 chassis.

Note: For the Remote Data Unit, see [Section A.1, RDU Specifications](#).

A.2.1 Chassis 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-3](#) provides the physical specifications of the devices than can control the RDU.

Table A-3. Physical Specifications, Rackmount Chassis

Measurement	BANDIT Plus	VSR-1200
Height	1U (1.75 in.; 4.45 cm)	1U (1.75 in.; 4.45 cm)
Width	19 in. (48.26 cm)	19 in. (48.26 cm)
Depth	8.3 in. (21.08 cm)	8.3 in. (21.08 cm)
Weight	4 lb. (1.81 kg)	4 lb. (1.81 kg)
Installation Type	Rackmount	Rackmount

A.2.2 Chassis Power

The BANDIT Plus uses one internal power supply, and the VSR-1200 uses two internal loadsharing power supplies.

In the BANDIT Plus and the VSR-1200, the power supply is auto-ranging, with a locking connector. The power supply accepts input power of 100 to 240 VAC, 50–60 Hz.

Each of these power supplies delivers 5 volts DC to the device.

A.2.3 Chassis Environmental Specifications

[Table A-4](#) provides the environmental specifications for the BANDIT chassis.

Table A-4. Environmental Specifications (1 of 2)

Item	Specification	
	BANDIT III	All Other Chassis
Temperature	Operating Temperature: -4°F to 140°F (-20°C to 60°C); no fans Non-Operating Temperature: -40°F to 185°F (-40°C to 85°C)	32° to 104° F (0° to 40° C)
Humidity	10% to 95% non-condensing	10% to 85% non-condensing

Table A-4. Environmental Specifications (2 of 2)

Item	Specification	
	BANDIT III	All Other Chassis
Altitude	Up to 10,000 ft. (3,048 m)	Up to 10,000 ft. (3,048 m)

A.3 Pin Configurations

Table A-5. DB25 Serial Port Pin Configuration

Pin Number ¹	Description
Pin 1	Shield
Pin 2	TXD
Pin 3	RXD
Pin 4	RTS
Pin 5	CTS
Pin 6	DSR
Pin 7	GND
Pin 8	DCD
Pin 15	TXC
Pin 17	RXC
Pin 20	DTR
Pin 24	SCTE

1. Unused pins are not listed.

Table A-6. RS-232 DTE Crossover Cable for DB25 Serial Port (1 of 2)

Input	Output
Pin 1 (Shield)	Pin 1 (Shield)
Pin 2 (TXD-A)	Pin 3 (RXD)
Pin 3 (RXD-A)	Pin 2 (TXD)
Pin 4 (RTS-A)	Pin 6 (DSR)
Pin 5 (CTS-A)	Pin 20 (DTR)
Pin 6 (DSR-A)	Pin 4 (RTS)

Table A-6. RS-232 DTE Crossover Cable for DB25 Serial Port (2 of 2)

Input	Output
Pin 7 (GND)	Pin 7 (GND)
Pin 8 (DCD-A)	Pin 8 (DCD)
Pin 15 (TXC-A)	Pin 15 (TXC)
Pin 17 (RXC-A)	Pin 24 (EXT CLK)
Pin 20 (DTR-A)	Pin 5 (CTS)
Pin 24 (SCTE-A)	Pin 17 (RXC)

Table A-7. 10-Base-T or 10/100-Base-T Ethernet Port Pinout, All BANDIT Products except VSR-1200

Pin ¹	Description
1	TD+
2	TD-
3	RD+
6	RD-

1. Unused pins are not listed.

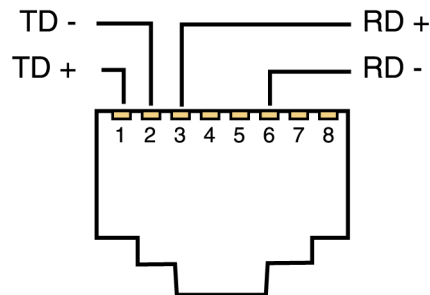
**Figure A-1. RJ45 10-Base-T or 10/100-Base-T Ethernet Connector, All BANDIT Products except VSR-1200**

Table A-8. 10-Base-T or 10/100-Base-T Crossover Cable, All BANDIT Products except VSR-1200

Connector 1	Connector 2
1	3
2	6
3	1
6	2

Table A-9. 10/100-Base-T Ethernet Port Pinout, VSR-1200

Pin Set ¹	Description ²
1 and 2	Tx or Rx
3 and 6	Rx or Tx

1. Unused pins are not listed.
2. The VSR-1200 Ethernet connectors are autosensing and will adjust to the signals from the connected device.

Table A-10. 100/1000-Base-T (1 Gigabyte) Ethernet Port Pinout, VSR-1200

Group	Pin Set ¹	Description ²
A	1 and 2	Tx pair 1 or Rx pair 1
	3 and 6	Tx pair 2 or Rx pair 2
B	4 and 5	Rx pair 1 or Tx pair 1
	7 and 8	Rx pair 2 or Tx pair 2

1. Unused pins are not listed.
2. The VSR-1200 Ethernet connectors are autosensing, and will adjust to the signals from pins in the same group on the connected device.

Table A-11. Port Speeds, Synchronous (1 of 2)

Synchronous (Bits/Second)
2,048,000
1,536,000

Table A-11. Port Speeds, Synchronous (2 of 2)**Synchronous (Bits/Second)**

1,024,000
768,000
512,000
384,000
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-12. Port Speeds, Asynchronous**Asynchronous (Bits/Second)**

230,400
115,200
57,600
48,000
3,8400
19,200
9,600
4,800
2,400
1,200

Table A-13. BANDIT Plus HD26 Serial Port Pin Configuration

HD26 Pin	Function
1	Earth Ground
2	TXD+
3	RXD+
4	RTS+
5	CTS+
6	DSR+
7	DCE/DTE (See cable pin setting in Table A-14 . ¹)
8	DCD+
9	RXC-
10	DCD-
11	SCTE-
12	TXC-
13	CTS-
14	TXD-
15	TXC+
16	RXD-
17	RXC+
18	M0 (See cable pin setting in Table A-15 . ¹)
19	RTS-
20	DTR+
21	M1 (See cable pin setting in Table A-15 . ¹)
22	DSR-
23	DTR-
24	SCTE+
25	M2 (See cable pin setting in Table A-15 . ¹)
26	Digital GND

1. You must order an adapter cable to provide the functions you need for pin 7 (described in [Table A-14](#)), and for pins 18, 21, and 25 (described in [Table A-15](#)). Contact your Encore Networks representative.

Table A-14. Cable Pin Setting to Configure HD26 Serial Port as Physical DCE or DTE

Physical Interface	Pin 7 of HD26 Interface
DTE	0 (Connect pin 7 to pin 26)
DCE	1 (Leave pin 7 open)

Table A-15. Cable Pin Settings to Configure HD26 Serial Port's Electrical Interface

Electrical Interface	M2 (Pin 25)	M1 (Pin 21)	M0 (Pin 18)
V.11	0	0	0
RS-530A	0	0	1
RS-530	0	1	0
X.21	0	1	1
V.35	1	0	0
RS-449/V.36	1	0	1
V.28/RS-232	1	1	0
No cable	1	1	1

0 = Connect the specified pin(s) to pin 26

1 = Leave the specified pin(s) open

Table A-16. Pin Mapping for HD26-to-DB25 Serial Cable, RS-232, DTE (1 of 2)

HD26 Male		DB25 Male	
Pin	Function	Pin	Function
1	SHIELD	1	SHIELD
7, 18, 26	DTE/DCE, M0, S. GND	7	S. GND
9	RXC-A	17	RXC
10	DCD-A	8	DCD
11	SCTE-A	24	EXTER TX CLK
12	TXC-A	15	TXC
13	CTS-A	5	CTS
14	TXD-A	2	TXD
16	RXD-A	3	RXD

Table A-16. Pin Mapping for HD26-to-DB25 Serial Cable, RS-232, DTE (2 of 2)

HD26 Male		DB25 Male	
Pin	Function	Pin	Function
19	RTS-A	4	RTS
22	DSR-A	6	DSR
23	DTR-A	20	DTR

Note: The drain wire must be connected to the back shell at both ends.

Table A-17. Pin Mapping for HD26-to-DB25 Serial Cable, RS-232, DCE

HD26 Male		DB25 Female	
Pin	Function	Pin	Function
1	SHIELD	1	SHIELD
9	RXC-A	24	EXTER TX CLK
10	DCD-A	8	DCD
11	SCTE-A	17	RXC
12	TXC-A	15	TXC
13	CTS-A	20	DTR
14	TXD-A	3	RXD
16	RXD-A	2	TXD
18, 26	M0, S. GND	7	S. GND
19	RTS-A	6	DSR
22	DSR-A	4	RTS
23	DTR-A	5	CTS

Note: The drain wire must be connected to the back shell at both ends.

Table A-18. Supervisory Port RJ45-to-DB9 Terminal Adapter Cable (1 of 2)

8-Pin Mod. Pin	Function	Out	In	DB9 Pin
1	Unused			9
2	DCD	→		1
3	DTR		←	4

Table A-18. Supervisory Port RJ45-to-DB9 Terminal Adapter Cable (2 of 2)

8-Pin Mod. Pin	Function	Out	In	DB9 Pin
4	Common Ground			5
5	Receive Data	→		2
6	Transmit Data		←	3
7	CTS	→		8
8	RTS		←	7

Table A-19. Supervisory Port RJ45-to-DB25 Terminal Adapter Cable

8-Pin Mod. Pin	Function	Out	In	DB25 Pin
1	Unused			22
2	DCD	→		8
3	DTR		←	20
4	Common Ground			7
5	Receive Data	→		3
6	Transmit Data		←	2
7	CTS	→		5
8	RTS		←	4

Table A-20. Supervisory Port RJ45-to-DB25 Modem Adapter Cable

8-Pin Mod. Pin	Port Function	Out	In	DB25 Pin	Modem Function
1	Unused			22	Not Connected
2	DCD	→		8	Not Connected
3	DTR		←	20/6	DTR/DSR
4	Common Ground			7	Common Ground
5	Receive Data	→		2	Transmit Data
6	Transmit Data		←	3	Receive Data
7	CTS	→		4	RTS
8	RTS		←	5	CTS

A.4 Standards Compliance

All BANDIT products comply with the agency standards listed in [Table A-21](#).

Table A-21. Standards Compliance

Compliance	Agency
Safety	ANSI/UL Std. No. 60950, 3rd Edition (U.S. Safety) CAN/CSA-C22.2 No. 60950 (Canadian Safety) EN 60950, European Safety (CE Mark)
Emissions	FCC Part 15, Sub-Part B, Class A (U.S.) EN 55022: 1998 (Europe)
Immunity	EN 55024: 1998 (Europe)