



# Specifications

This appendix lists the specifications for the Cisco DVB CAR100.

Description	Specification
<b>Downstream Communication</b>	
Channel bandwidth	8 MHz
Modulation scheme	QPSK (QAM 4), QAM 64
Symbol rate	6.8 Mbaud, 6.875Mbaud, or 6.9 Mbaud
Channel bit rate (raw)	41.4 Mbps (64 QAM and 6.9 Mbaud)
FEC	Reed-Solomon decoder (204,188)
Framing	MPEG, DSM-CC MPE, Direct IP, or MPE Ethernet encapsulation (Logical Link Control [LLC])
<b>Receiver Input</b>	
Input level	Min.: Better than 47 dB microvolts (-13 dB millivolts) Typically: 42 dB microvolts (-18 dB millivolts) Max.: 70 dB microvolts (10 dB millivolts)
Frequency range	110 to 862 MHz
Tuning step size	62.5 kHz
Impedance level	75 Ohm
Return loss	7.5 dB <sup>1</sup>
<b>Upstream Communication</b>	
Modulation scheme	QPSK
Channel bandwidth	1 and 2 MHz
Symbol rate	1.544 Mbaud
Channel bit rate (raw)	3.088 Mbps (QPSK and 1.544 Mbaud)
FEC	Reed-Solomon encoder, (59, 53) corrects up to 3 of 53 bytes
Burst length	63 bytes + 1 byte guard 1 ATM cell per burst
Framing	ATM adaption layer (AAL) 5, Direct IP or AAL5 Ethernet Encapsulation (LLC)

Description	Specification
<b>Transmitter Output</b>	
Signal level	85-120 dB $\mu$ V RMS
Frequency range	5-65 MHz
Tuning step size	50 kHz
Impedance level	75 Ohm
Spurious in other channels	-45 dB <sup>2</sup>
<b>Standards Compliance List</b>	
	DVB-C (ETS 300 429)
	DVB-RC (ETS 300 800, November 1998)
	DVB-DATA (EN 301 192)
	RFC 791 IP
	RFC 792 ICMP
	RFC 951 BOOTP
	RFC 1483 Multiprotocol Encapsulation over AAL 5
	RFC 1213, 1441-1445, 1447-50, 1452-SNMPv2c
	RFC 1350 TFTP
	RFC 2236 IGMPv2
	IEEE 802.3 Ethernet 10BaseT
	IEEE 802.2 LLC
	EuroModem Specification <sup>3</sup>
<b>Power</b>	
Supply	9 to 15 VDC
Power consumption	Maximum 15W
Safety	UL1950, CSA 22.2, EN 60950
<b>EMC and Safety</b>	
Emission	EN 55022 Class B
Immunity	EN 50082-1
Safety	EN 60950
<b>Dimensions and Weight</b>	
Dimensions (H x W x D)	Approx. 7.85 x 9.77 x 1.77 in. (200 x 248 x 45 mm)
Weight	Approx. 1.8 lb (800 g) excl. power supply
<b>Environmental</b>	
Operating temperature	5 to 40°C (41 to 104°F)
Storage temperature	-25 to 55°C (-12 to 131°F)
Humidity	0 to 90%, noncondensing

Description	Specification
<b>User Interface (Ethernet)</b>	
LAN interface	10 Mbps
Framing	IEEE 802.2, Ethernet2, 802.3 MAC
Connector	RJ-45

1. See specific deviations from the Euromodem specification.
2. See footnote #1.
3. See footnote #1.

