



Specifications

This appendix provides information on the Cisco DVB Interactive Network Adapter INA2320 specifications.

Table A-1 lists the Cisco DVB INA2320 physical and electrical specifications and power requirements.

Table A-1 Electrical and Physical Specifications

Description	Specifications
Downstream communication	
Channel bandwidth	In-Band 8 MHz Out-of-Band 1 or 2 MHz
Modulation scheme	QPSK (QAM4), QAM 16/32/64/128 software-configured
Roll-off factor alpha	In-Band: 0.15 Out-of-Band: 0.18 ¹
Carrier/noise ratio	INA2320 > 43 dB DVX167/DAVIC 1.2: > 43 dB ²
Framing IB	MPEG, DSM-CC MPE, Direct IP or LLC/SNAP
Framing OOB	SL-ESF, AAL5, Direct IP
ASI output	BNC connector, 75 Ohm
RF Output	
RF Output level	VHF: 101-111 dBmicroV UHF: 100-110 dBmicroV
Frequency range	VHF: 9.5-466.5 MHz UHF: 472.75 - 858.75 MHz
Physical interface	Tx output connector BNC, 75 Ohm
IF amplifier output test point	-20 dB 1 dB
Upconverter gain adjustment	VHF: 11 dB UHF: 10 dB
Upstream communication	

Table A-1 Electrical and Physical Specifications (continued)

Description	Specifications
Channel bandwidth	Selectable: 1 MHz, 1.544 Mbps at input level 58 - 75 dB μ V 2 MHz, 3.088 Mbps at input level 58 - 75 dB μ V
Roll-off factor alpha	0.25 ³
Input frequency range	5-65 MHz (in 10 kHz resolution)
Framing	AAL5 (ATM)
Physical interface	Rx Input connector BNC, 75 Ohm
Alarm	
Alarm connector	9-pin sub-D male
Interfaces	
Ethernet Interfaces	RJ-45 10/100
Power	
Supply	100-250 V AC
Power consumption	80 W max.
EMC and Safety	
Immunity	EN 61000-4-3 Radiated Electric Field Immunity EN 61000-4-2 Electrostatic Discharge EN 61000-4-4 Electrical Fast Transients (Burst) AC Line EN 61000-4-4 Electrical Fast Transients (Burst) Signal Line EN 61000-4-11 Voltage Dips EN 61000-4-11 Voltage Interruption EN 61000-4-6 Injected RF EN 61000-4-5 Surges AC Line EN 61000-4-5 Surges Indoor Signal Line
Emission, Radiated Emission ⁴	EN 55022, 1998 CISPR 22, 1997 EN 300386-2, 1997 ETS 300386-1, AS/NZ3548, 1995 VCCI: V-3/97.04 47CFR15:1997

Table A-1 Electrical and Physical Specifications (continued)

Description	Specifications
Emission, Conducted Emission AC Line ⁵	EN 55022, 1998 CISPR 22, 1997 EN 300386-2, 1997 ETS 300386-1, AS/NZ3548, 1995 VCCI: V-3/97.04 47CFR15:1997
Safety	EN 60950
Dimensions and weight	
19" standard subrack	
Dimensions (H x W x D)	13.2 x 45 x 24.5 cm (5.2 x 17.7 x 9.7 in.)
Weight	9.4 kg (20.72 lbs)
Environmental	
Temperature	0 to 40 C (32 to 104 F) operating; -20 to 65 C (-4 to 149 F) non-operating
Humidity	10 to 90% non-condensing

1. Standard requirement for Out-of-Band transport with downstream shaping filter with alpha=0.3 and signal to noise ratio >43 dB. The Cisco INA2320 meets and exceeds standard carrier/noise requirements with a carrier/noise ratio at >43 dB with alpha=0.18
2. As in footnote 1.
3. Standard requirement for upstream shaping filter with alpha=0.3. Cisco INA2320 meets and exceeds standard carrier/noise requirements with a carrier/noise ratio with alpha=0.25
4. Caution: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
5. Caution: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

