

150 CMTS INTERFACE CMTSI



Varis' CMTS Interface provides connection between the Smart Com 150 LF Network and the CMTS used for Smart Com Ethernet installations. The CMTSI and RNG-CMI units work together to compensate for the Varis Smart Com 150 network not having the same upstream band-pass as CATV networks. The interface units perform a frequency translation to insert and extract a 6.4 MHz wide DOCSIS 2.0 64 QAM data channel. The RNG-CMI performs an up-conversion from CATV upstream frequencies to Smart Com 150 upstream frequencies, while the CMTSI does the opposite.



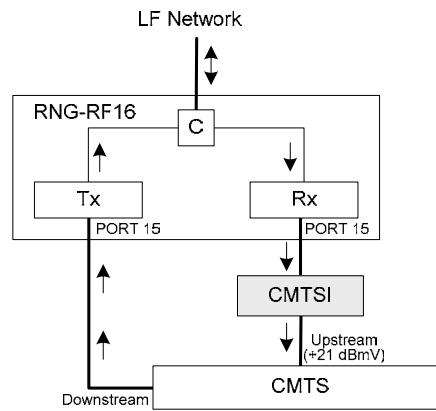
CMTSI Interface

Product Specifications

	Part Number	CMTSI
Physical	Construction	Single Printed Circuit Board in 19" Rack Mount Enclosure
	Dimensions (W x H x D)	19 x 3.5 x 13 in (48.3 x 8.9 x 33.0 cm)
	Weight (nominal)	2.60 kg (5.73 lbs)
	Conformal Coating	No
	Input Connector	BNC Female
	Output Connector	F-type Female
	Power Connector	2 position Terminal Block
Environmental	Temperature Range	-20 to +60° C (-4 to +140° F)
Electrical	Input Voltage	12 → 14 Vdc
	Current Consumption	350 mA (nominal)
	Power Indicator	LED
RF Characteristics	Modulation Mode	QPSK, 8QAM, 16QAM, 32QAM and 64QAM
	Data Rate Mode	5.12 to 30.72 Mbps
	On-Board Attenuator	0-15 dB
	Gain (Atten = 0)	+5 dB (typ)
	MER	>= 40 dB
	BER	<1.0E-10 Pre-FEC (Forward Error Correction) Avg.
	Frequency Stability	± 500 Hz (over operating temp range)
	Lo Leakage	-70 dBm
RF Input	Input Impedance	50 Ω
	Input Frequency Range	175 → 185 MHz
	Input Signal Strength	+12 → +36 dBmV
	Input Center Frequency	180.0 MHz
RF Output	Output Impedance	75 Ω
	Output Frequency Range	24.75 → 34.75 MHz
	Output Signal Strength	17 → 26 dBmV
	Output Center Frequency	29.75 MHz
Approvals	Intrinsic Safety	No
	CE Certification	No

Installation Instructions

- Install the CMTSI in the base station's 19" cabinet.
- Only one CMTSI is required per Smart Com Ethernet installation.
- Connect the CMTSI input to Rx port 15 on the RNG-RF16 using a 3' 50 ohm BNC male to BNC male cable.
- Connect the CMTSI output to the active upstream port of the CMTS unit using a 3' 75 ohm F-type male to F-type male cable.
- Connect the red (positive) and black (negative) power leads from the CMTSI to the Base station's 12 V power supply.
- In a typical installation, the on-board attenuator will remain in the 0 dB position. See Smart Com Ethernet manual for more information.



CMTSI Installation