ATCi 402LZ L-Band Fiber Transmitter Module

Summary

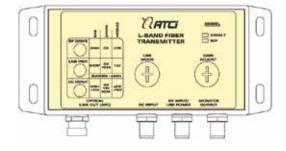
The 402LZ is a outdoor/indoor mounted fiber optic transmitter for RF signals in the satellite L-Band or wider frequency range. It accepts a single RF input on coaxial cable and provides a single output for optical transmission. Up to four 402LZ's may be installed in the ATCi Link4i chassis. Fiber links offer superior performance to coax by preserving signal C/N and slope over distance, while also providing electrical isolation between antenna and facility, mitigating ground loop and light-ning issues.

The 402LZ is modular and hot-swappable, allowing for easy system expansion and service. A full power RF monitor output offers a convenient means of obtaining peak satellite signal strength, or additional signal distribution. The 402LZ allows gain to be adjusted manually or managed automatically via AGC. and also offers SmartMON[™] which relays monitoring parameters including incoming RF signal strength, LNB current,

temperature and other data over the fiber output for monitoring through SNMP/VistaLINK® (requires SmartMON™ capable companion fiber receiver). The 402LZ also provides LNB power and comprehensive LED indicators for status information on input DC power, RF drive level and LNB power status.

Features & Benefits

- Wide frequency range for extended L-Band, over the air DTV and other signals
- Protocol independent design transports all modulation formats
- DC pass through and 13V DC modes for LNB power
- · Active LNB current limit & short circuit protection (no fuses needed)
- Minimizes coaxial cable length for superior C/N performance
- 22kHz tone on/off for LNB local oscillator control
- RF monitor output for signal peaking and signal distribution
- Tri-color LED status indicators for Link RF drive strength, LNB voltage and DC input voltage level
- Designed for extended temperature range operation
- SmartMON $^{\rm m}$ capability: Provides remote status monitoring via SNMP without a separate data connection
- LNB current monitoring to provide advance warning of LNB failure
- Manually adjustable or AGC gain modes
- Available with 16 CWDM wavelengths for fiber-limited applications





Specifications: 402LZ L-Band Fiber Transmitter Module

RF Input:

Number of Inputs: I Flatness: Connector: F-Type (500 BNC 0ptional) 95 - 2150MHz: ±1.5dB Conductor Range: 750 (500 0ptional) ±2.0dB +/ -0.25dB on 36MHz BW to 2.3GHz Input Impedance: 750 (500 0ptional) +/ -0.25dB on 36MHz BW to 2.3GHz ±2.0dB Frequency Range: t/ -0.25dB on 36MHz BW to 2.3GHz ±2.0dB ±2.0dB (rom 20°C to +70°C) GWDM or DFB lase 1200MHz 3000MHz 200MHz ±2.0dB (rom 20°C to +70°C) Return Loss: DC Input: ±2.0dB (rom 20°C to +70°C) ±2.0dB (rom 20°C to +70°C) S00MHz > 11dB 000MHz 200MHz ±2.0dB (rom 20°C to +70°C) ±2.0dB (rom 20°C to +70°C) S00MHz > 11dB Voltage: ±2.4D (rom 20°C to +70°C) ±2.0dB (rom 20°C to +70°C) S00MHz > 11dB Onnector: F.Type Conductor Range: 23.18 AWG (0.26-0.82 mm2) Emersions Input IP3: + 10dBm conductor Range: 2.15 K 5.5°W x 1.4°H Emersions Voltage: DC Input-0.5V DC, 13.5V DC, off (selectable) Complicane reto and 1040.11 Emersions	RF Input:		RF System Performance 401/402LZ+7708LRA pair:	
Conductor Range: 23-18 AWG (0.26-0.82 mm2) 120MHz - 3GHz: 22.03B Input Impedance: 75Ω (50Ω Optional) +/ ·0.25dB on 36MHz BW to 2.3GHz Frequency Range: ±20MHz - 3000MHz ±210MHz - 30CC to +70°C) CWDM or DFB laser 850MHz - 3000MHz ±20MLz - 3000MHz S00MHz: > 110B b ±240 (rom -20°C to +70°C) CWDM or DFB laser 120MHz - 3000MHz ±20MLz - 3000MHz ±240 DC nominal, +11V DC to +36V DC range S00MHz: > 11dB Power: 2W max excluding LNB Power S00MHz - 36dBiz: > 16dB Power: 2W max excluding LNB Power AGC Hold Range: -8 to -38dB m +/-2dBm Connector: F.Type Input IP3: + 10dBm Conductor Range: 23-18 AWG (0.26-0.82 mm2) IMD: < -55dB cat -15dB input and min. gain	Number of Inputs:	1	Flatness:	
Input Impedance:75Ω (50Ω Optional)+/ -0.25dB on 36MH2 BW to 2.3GH2Frequency Range:Gain variation over temperature:1310nm FP laser850MHz - 3000MHzCWDW or DFB laser120MHz - 3000MHz20-500MHz:> 11dB20-500MHz:> 11dB500MHz:> 11dB500MHz:> 11dB600Mtz:3GHz:700 (S00Mtz:> 11dB700 (S00Mtz:> 10mensions700 (S00Mtz:> 25%L x 5.5°W x 1.4°H700 (S00Mtz:> 22kHz on/off (selectable)700 (S00Mtz:> 22kHz on/off (selectable)700 (S00Mtz:> 22kHz on/off (selectable)700 (S00Mtz:> 22kHz on/off (selectable)700 (S00Mtz:2700 (S00 (S00 (S00Mtz))2700 (S00 (S00 (S00 (S00 (S00 (S00 (S00 (Connector:	F-Type (50Ω BNC Optional)	950 · 2150MHz:	±1.5dB
Frequency Range: Gain variation over temperature: 1310mm FP laser 850MHz - 3000MHz CWDM or DFB laser 120MHz - 3000MHz Return Loss: > 11dB 120-500MHz: > 11dB S00MHz - 3GHz: > 15dB S00MHz - 3GHz: > 15dB S00MHz - 3GHz: > 15dB AGC Hold Range: 8 to -38dBm +/-2dBm Input IP3: + 10dBm Input IP3: + 10dBm IND: < -55dBc at -15dB input and min, gain	Conductor Range:	23-18 AWG (0.26-0.82 mm2)	120MHz · 3GHz:	±2.0dB
1310 mm FP laser850MHz - 3000MHz±2dB (from -20°C to +70°C)CWDM or DFB laser120MHz - 3000MHz50 Linput:Return Loss:120MHz - 3000MHzCC linput:120-500MHz - 3GHz:> 11dBVoltage:+24V DC nominal, +11V DC to +36V DC range500MHz - 3GHz:> 15GBPower:2W max excluding LNB Power600MHz:-36Hz:> 15GBConnector:F.TypeAGC Hold Range:-8 to -38dBm +/-2dBmConnector:F.TypeInput IP3:+10dBmConductor Range:23:18 AWG (0.26-0.82 mm2)IMD:< -55dB cat -15dB input and min. gain	Input Impedance:	75Ω (50Ω Optional)		+/ -0.25dB on 36MHz BW to 2.3GHz
CWDM or DFB laser120MH2 · 3000MHZReturn Loss:DC Input:120:500MH2:> 11dBVoltage:+24V DC nominal, +11V DC to +36V DC range500MH2:> 15dBPower:2W max excluding LNB Power500MH2:> 15dBConnector:F.TypeInput IP3:+10dBmConductor Range:23-18 AWG (0.26-0.82 mm2)IMD:< -55dBc at · 15dB input and min. gainPhysical:DimensionsVoltage:DC Input-0.5V DC, 13.5V DC, off (selectable)With Flanges:2.5"L x 5.5"W x 1.4"HCurrent:500mAWith Flanges:2.5"L x 5.5"W x 1.4"HCortrol:22kHz on/off (selectable)Compliance:Input Power Range:·10dBm to ·50dBmLaser safety:Class 1 laser product Complies with 24 CFR 1040.10Manual Gain Range:+2 to +30dB in 2dB stepsIEC 60825-1FF Monitor Outputs:1Emvironmental:Connector:F.Type (500 BNC Optional)Emvironmental:Conductor Range:23.18 AWG (0.26-0.82 mm2)Temperature:Output Impedance:750 (500 Optional)Environmental:Connector:F.Type (500 BNC Optional)Temperature:Output Impedance:750 (500 Optional)1310nm:-20 to +70°CReturn Loss:> 15dBCWDM:-20 to +60°COutput Ievel:Withir-2dB of input signalCWDM:-20 to +60°C	Frequency Range:		Gain variation over temperature:	
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Instruction> 11dBVoltage:+ 24V DC nominal, +11V DC to +36V DC range120-500MHz:> 15dBPower:2W max excluding LNB PowerAGC Hold Range:-8 to -38dBm +/-2dBmConnector:F-TypeInput IP3:+10dBmConductor Range:23:18 AWG (0.26-0.82 mm2)IMD:< -55dBc at -15dB input and min. gainPhysical:LNB Power:DC Input-0.5V DC, 13.5V DC, off (selectable)With Flanges:2.5"L x 5.5"W x 1.4"HCurrent:500mAEmersionsCurrent:500mACompliance:Input Power Range:10 dBm to -50dBmLaser safety:Class 1 laser product Complies with 24 CFR 1040.10Manual Gain Range:+2 to +30dB in 2dB stepsand 1040.11IEC 60825-1F Monitor Outputs:1Emvironmental:Compliance:Output Impedance:750 (500 DNC Optional)Environmental:Output Impedance:750 (500 QDtional)1310nm:-20 to +70°CReturn Loss:> 15dBCWDM:-20 to +60°COutput:Within -2dB of input signalCWDM:-20 to +60°C	CWDM or DFB laser	120MHz · 3000MHz		
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Add Hold RangeIs to South PriceDiffInput IP3:+10dBmConductor Range:23-18 AWG (0.26-0.82 mm2)IMD:< -55dBc at -15dB input and min. gain	500MHz - 3GHz:	> 15dB		9
IMpering 3. 41000 ml 41000 ml IMD: < 150 dB input and min. gain	AGC Hold Range:	-8 to -38dBm +/-2dBm		
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Return Loss: > 15dB CWDM: .20 to +60°C Output Level: Within -2dB of input signal .20 to +60°C			'	
Output Level: Within -2dB of input signal				
Optical Output:			CWDM:	-20 to +60°C
	Output Level:	Within -2dB of input signal		
Number of Outputs: 1	Optical Output:			
	Number of Outputs:	1		

Ordering Information:

Connector: Female FC/APC

Standard 1310nm: +2dBm

Operating Wavelength: Standard:

CWDM:

CWDM:

Output Power:

401LZ13 L-Band fiber transmitter module, 1310nm FP laser

1310nm

+2dBm

1270-1610nm

402LZ13 L-Band fiber transmitter module, 1310nm FP laser, adjustable gain, 13V/DC Pass + 22kHz LNB power, inband SmartMONTM monitoring 402LZXX L-Band fiber transmitter module, CWDM DFB laser, adjustable gain, 13V/DC Pass + 22kHz LNB power, inband monitoring

XX = CWDM wavelength: 27=1270nm, 29=1290nm, 31=1310nm, 33=1330nm, 35=1350nm, 37=1370nm, 43=1430nm, 45=1450nm, 47=1470nm, 49=1490nm, 51=1510nm, 53=1530nm, 55=1550nm, 57=1570nm, 59=1590nm, 61=1610nm

