



7000 IFL — L-Band Fiberoptic Interfacility Link



- Broadband transmission 950 to 2150 MHz (2500 MHz available)
- Protocol transparent transmits all video, audio, and data modulation formats
- Signal transmission ranging from 100 meters to 10 kilometers
- Rack mount and standalone packaging options available
- Front panel test ports and indicators
- Rear panel alarms and monitors
- Selectable Manual or Automatic Gain Control
- LNB Drive Option

SAT-LIGHT[™] - High Performance, Cost Effective Interfacility Links

The SAT-LIGHT[™] 7000 IFL transmits an entire L-Band RF Signal over singlemode fiber from a satellite antenna LNB to control room equipment up to 10 kilometers away while preserving excellent signal quality. The 7000 IFL consists of an optical transmitter (7000T) which receives the L-Band signal from the LNB and an optical receiver (7000R) which connects to a satellite receiver.

The 7000T and 7000R modules plug into a 7000M 3U chassis/power supply that enables expansion of the system to accommodate any 6 SAT-LIGHT modules. Accessories include the Model 7000S Standby Power Supply, the Model 2000 1:1 Redundant Switch, the Model 2100 Amplifier, and the Model 7050 Serial Data Multiplexer, an asynchronous data link.

The 7000 IFL transmits all satellite modulation schemes - digital or analog. The RF signal is directly modulated and adds virtually no phase noise to the original signal. The direct modulation, coupled with the 7000 Link's RF circuitry, guarantees superior signal quality.

Automatic Gain Control (AGC) at the transmitter site sets and maintains optimum operation over a wide range of input signal levels. At the receiver site AGC maintains the RF level regardless of optical power or distance from the transmission site. Front panel RF tests ports, LEDs, and back panel monitors and alarms allow for complete system status monitoring and for interfacing with M & C systems. The transmitter unit can provide 15 VDC/350mA for optional LNB powering.



7000 IFL Specifications

RF Characteristics						
Frequency Range	950 -2150 MHz (2500 MHz optional)	Input Signal Range (Total Power)	-40 to -20 dBm			
Flatness	±1.5 (typical) dB @ 950 - 2150 MHz	Output Signal Range (Total Power)	-45 to -15 dBm			
	± 0.25 dB @ any 36 MHz	Gain Stability	± 2 dB			
Input/Output Impedance	75 Ohm (50 Ohm optional)	Gain Control	Manual or Automatic			
Return Loss	13 dB (1:1.7 VSWR) (min.)	Link Gain	0 ± 10 dB			
Intermodulation Products	-40 dBc (max.)	PE Connector	F type female @ 75 Ohm			
Carrier to Noise	35 dB @ 36 MHz / 10 km		BNC @ 50 Ohm (option)			

For longer distances contact Foxcom

Optical Characteristics					
Optical Wavelength	1310 ± 10 nm	Optical Connector	FC/APC		
Optical Power Output	0.4 to 1.0 mW	Optical Budget	6 dB / 10 km		



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Physical				
Chassis Capacity	6 plug-ins			
Chassis Size	19" x 5.25" x 7"			
Unit Size	5" x 4.8" x 1.6"			
Power for Rackmount Chassis	110 or 220 VAC 50/60 Hz 60 Watts max.			
Power for Standalone				
Transmitter	15 VDC @ 270 mA (max.) / 400mA@ 10°C			
• Receiver	15 VDC @ 280 mA (max.)			
Operating Temperature Range	-10° to 60° C			
Storage Temperature Range	-40° to 85° C			

Ordering Information

To order the 7000 IFL, or any of its options refer to the following table:

Description	Order Code	Available Accessories	Order Code
7000 Fiberoptic Transmitter - 950 to 2150 MHz	7000T	Chassis & Power Supply	7000M
7000 Fiberoptic Receiver - 950 to 2150 MHz	7000R	Redundant Power Supply	7000S
Option - LNB Powering (transmitter only)	add - L	FC/APC 5m Jumper Cable	APC-J-5
Option - 2500 Extended Frequency	add - 25	1:1 Redundant Switch	2000
Option - Standalone	add - STD	Asynchronous Data Link	7050-4
Option - 50 Ohm/BNC	add - 50 Ohm	32 dB Broadband Amplifier	2100

All specs are subject to change wihout prior notice.



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