



GPS Fiber Transport

Secure, Transparent Connection Between Your
GPS Antennas and Receivers

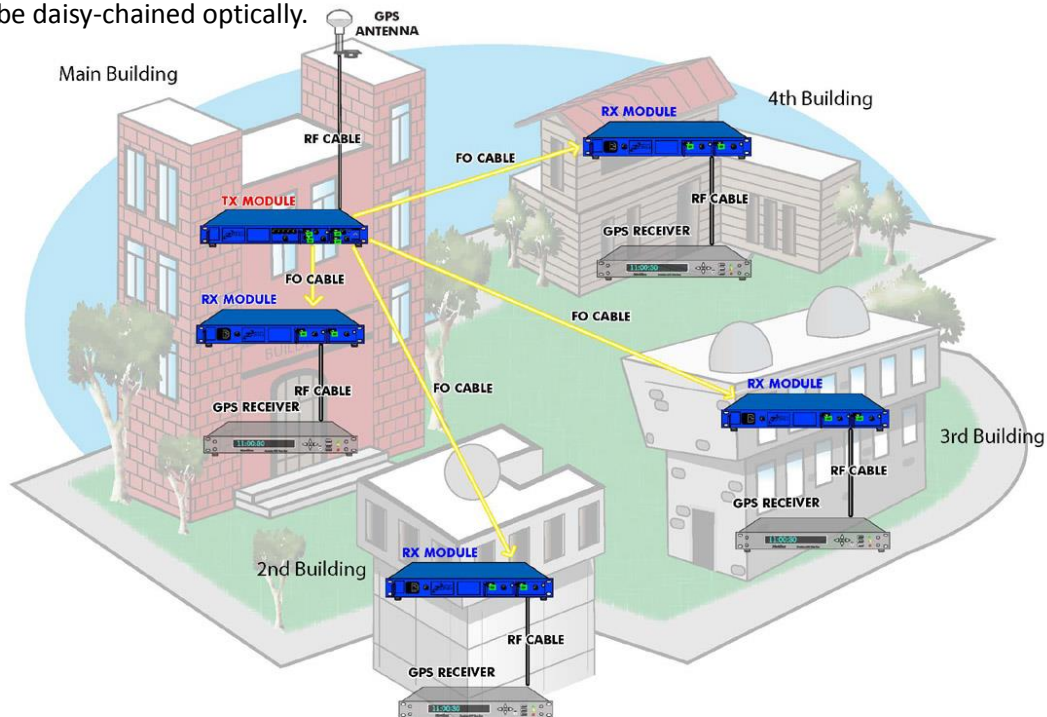
Major Features and Benefits

- Supports L1, L2, L3, L4 Frequencies
- Rugged Fiber Optic Tx for Antenna Collocation
- 1 or 2 GPS Paths for Redundancy
- Built-In Bias-T to Power Antenna
- Point-to-Point or Distributed GPS Signal

Recommended Applications

- Wireless Infrastructure Synchronization
- Data Network Timing
- Public Utilities
- Aviation

The GPS RF-over-Fiber Link by Optical Zonu provides a simple, cost-effective and reliable RF connection between the GPS antenna and receivers in those instances where coaxial cable is impractical. Each link is wideband and supports any of the GPS frequencies – current or future. The high dynamic range of the system ensures a transparent pass through with no distortion. A low noise pre-amplifier ensures a margin on signal-to-noise ratio while keeping the signal in the most linear operating range of the fiber optic link. The fiber optic transmitter housing is a compact, NEMA 4 enclosure and supports one or two GPS antennas. System redundancy is achieved with the WDM option that combines both transmitter outputs on a single fiber. Built-in Bias-Ts provide the needed DC power for each of the active GPS antennas. While the Optical Zonu GPS Fiber Link can be used for point-to-point applications, the link may also be optically split to provide GPS to multiple locations. For tunnel applications, the receivers can be daisy-chained optically.



Technical Specifications

RF Parameters		
Frequency Range		1 - 2 GHz
Noise Figure (Typical)		18 dB
Input IP3		+8 dBm
Link Gain (Typical)		20 dB
Group Delay		< 1 ns + 3.3 ns/m fiber length
Optical Parameters		
Fiber		Single Mode
DC Parameters		
Power	T Box	-36 to -70 VDC
	Rack Mount Chassis	110 – 260 VAC or – 48 VDC (option)
Current	T Box	60 mA @ -48 VDC (1 GPS antenna)
	Rack Mount Chassis	120 mA @ -48 VDC (2 GPS antennas)
Environmental		
Operating Temperature	T Box	-40 to +75 °C: Tx
	Rack Mount Chassis	0 to +40 °C: Rx
Mechanical Parameters		
Dimensions	T Box	9.25" W x 6" H x 3" D
	Rack Mount Chassis	19" W x 1.75" H x 15" D
Connectors	RF	N (F): T Box, SMA(F): Chassis
	Optical	IP-SC/APC IP68 (T Box); SC/APC (Chassis)
	DC	2.1 mm Sealed Power Lock (T Box); 2 Position 5.08mm Pluggable (Chassis)

Ordering Information

Description	Model Number	
GPS Fiber Transmitter with internal Bias-T	A13-TLnGPS-D31x-NS-SLyB-48	n = 1, 2: Number of Channels x = D55 (WDM); Blank (no WDM) y = W (WDM), Blank (no WDM)
GPS Fiber Receiver	A23-Z950n-GPS-AS-S-xx-y	n = 1, 2: Number of Channels xx = 48 (-48 VDC), AC (110 - 240 VAC) y = 1 (1 RF Out), 4 (4 RF Out)

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