global FOXCOM
completing the picture

Radio Link Extension System

1/2/4 Channel Radio Link Extension System

Features & Benefits

- 1/2/4 Channels
- Full power, dust-proof mechanism with 75% optical degradation
- Zero transmit loss circuitry
- Fast processing to eliminate signal loss in hopping mode or TX RX transaction
- Advanced amplification below 800 watts of power consumption
- Optional military field enclosure
- High performance filtering
- Single channel transmission distance up to 100KM

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Product Description

Global Foxcom's Military **Radio Link** Fiber Extension system is the ideal solution for remote antenna placement for tactical military applications. This innovative optical solution opens new boundaries by eliminating traditional limits of coax cables enabling the user to place a remote antenna up to 30km away while still maintaining signal quality and preventing lightning damage risks.

The system is composed of two main units that contains Fiber-optic Receivers/Transmitters, and Monitoring and Control abilities:

- **RSU (Radio Unit) #GL8586704**, which interfaces with 1/2/4 or more radios. The RSU is 1U high and interfaces with the ASU.
- **ASU (Antenna Unit) #GL8586705** outputs up to 50 Watts of transmit power to each connected antenna. The ASU is 4U high and interfaces with the RSU.

The radio units connect to the radio via coax cable and are protected against transmit power overload. The ASU is safeguarded against environmental degradation and can maintain full output power at all times.

With a strong processing power and a ***Zero transmit loss*** circuitry, Global Foxcom Radio Link supports high speed hopping rate while maintaining narrow band filtering. The Radio link system can easily be adjusted to support any radio type.

Specifications

Military Radio Fiber Extension System	
RF Spec	
Frequency range	30-88MHz or 220-440MHz
Radio supported / System channels	4 (optional 2, 6 or more)
Harmonic distortion	> 57dBc
Antenna unit In/Out VSWR	1:1.6
Antenna unit saturation signal PWR [total power]	> +10dBm
Antenna unit to radio unit gain	10dB
Antenna unit to radio unit noise figure (RX)	<5dB
Antenna unit output power*	47/44/41dBm (50/25/12Watt) Adjustable from Radio unit
Antenna unit output OIP3	+64dBm
Radio unit In/Out VSWR	1:1.6
Radio unit input signal range [total power]	Up to 39dBm (7watt) Operating, 53dBm (200Watt) Survive
Radio unit to antenna unit gain	14dB
Radio unit noise figure	<20dB
Radio unit output power	Depends on received signal level
Radio unit output OIP3	+5dBm
Optical Specifications	
Fiber type	Dual/Single SMF-28 or better [single mode]
Optical wavelength	CWDM range
RSU/ASU optical power output	+3dBm/2mW (Min)

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Military Radio Fiber Extension System		
Optical connector	LC-APC/SC-APC	
Supported fiber Length	30Km max (7dB).	
Environmental Specifications (Outdoor Unit)		
Temperature (MIL-STD-810G 501.5 / 502.5)	-32°C-49°C (operational), -32°C-71°C (storage)	
Humidity (MIL-STD-810G 507.5)	95% @ 35°C NON-CONDENSING	
Vibration (MIL-STD-810G 514.6)	0-500Hz 2.2 GRMS (WITH PACKAGE)	
Shock (MIL-STD-810G 516-6)	66cm drop test according to table 516.6-iv (with package)	
Sand and Dust	According to MIL-STD-810G 510.5 Proc. I & II	
Rain	According to MIL-STD-810G 506.5 Proc. I	
Salt Fog	5% SOLUTION, (material samples tested)	
EMC / EMI	**Radio unit**	**Antenna unit**
MIL-STD-461E	CE102, RE102 (Navy Mobile & Army), RS103 @ 2MHz - 10GHz 50V/m	CE102, RE102 (Navy Mobile & Army), RS103 @ 2MHz - 10GHz 50V/m
IEC 61000-4-5	Level 4	----------
Physical Specifications	**Indoor**	**Outdoor**
RF Connectors	4 BNC Female	4 BNC Female
Operating voltage/Current consumption	17-32VDC/1.5	24VDC/28A
Dimensions	19" 1U(2CH) / 2U(4CH)	19" 3U(2CH) / 6U(4CH)

Additional Information	
General	
Frequency accuracy	Not affected by the optical system
10% Band Pass filtering mode	Auto TX & RX / Auto TX/ externally controlled via a serial port
TX/RX switching delay	<1msec (controlled by Zero loss circuitry)
Receive sensitivity	-115dBm
Max returned power with no damage	+48dBm
Radio receive selectivity	Not affected by the optical system
Image rejection	95dBc
Hopping mode supported	Standard/ Nonstandard/Mil High rate with Zero transmit loss circuitry
Radio input power	2watt directly up to 50Watt using external attenuators
Transmit skirt/Power level	Not affected by the optical system or the fiber loss
Max transmit time	35Min
Transmit harmonic distortion	57dBc for 2nd & 3rd 74dBc on 4th and above
Tactical optional connector	Optional
4 Ch single fiber multiplexing	Optional
Optional supplied fibers	Standard or Tactical on a reel
Enclosure type	19"1U/3U with optional Rugged outdoor aluminum pelican enclosure

Contact Us for More Radio Link Ordering Options

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