



Radio Link Extension System

1/2/4 Channel Radio Link Extension System



Features & Benefits

- 1/2/4 Channels
- Full power, dust-proof mechanism with up to 75% optical degradation
- Zero transmit loss circuitry
- Fast processing to eliminate signal loss in hopping mode or TX/RX transaction
- Advanced amplification
- Optional military field enclosure
- High performance filtering
- Fiber transmission distance up to 30KM with no amplification

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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 contain fiber-optic converters, power amplifiers, advanced filtering and controllers that enable remote Monitoring and Control abilities:

- **RSU (Radio Unit)**, which interfaces with 1/2/4 or more radios.
The RSU is 1U high and interfaces with the ASU.
- **ASU (Antenna Unit)** 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 a high-speed hopping rate while maintaining narrow band filtering of the transmitted frequency.

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 / 136-174MHz / 220-440MHz
Radio supported / System channels	1 or 2 (optional 4 by stacking two systems)
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]

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Optical wavelength	DWDM / CWDM range	
RSU/ASU optical power output	+3dBm/2mW (Min)	
Optical connector	LC-APC / SC-APC	
Supported fiber length	30Km max (7dB)	
Environmental Specifications (Outdoor Unit)		
Temperature	-10°C-50°C (operational), -32°C-71°C (storage)	
Humidity	95% @ 35°C NON-CONDENSING	
Physical Specifications	Radio Unit (RSU)	Antenna Unit (ASU)
RF Connectors	TNC / BNC Female	N-Type Female
Operating voltage / Current consumption (2Ch)	100-220Vac 50/60Hz	24-28 VDC / 16A
Dimensions	19" 1U	19" 4U

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 optical system or fiber loss
Max transmit time	35Min
Transmit harmonic distortion	57dBc for 2 nd & 3 rd 74dBc on 4 th and above
Tactical optional connector	Optional
4 Ch single fiber multiplexing	Optional
Optional supplied fibers	Standard or Tactical on a reel

Contact Us for More Radio Link Ordering Options