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All specifications are subject to change without notice

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Partnered Supplier



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FORAX-LS

Line of Sight for 1 Channel
RF over Fibre



FORAX connects radios to antennas over very long distances using secure fibre optic cable

The versatile, second-generation FORAX-LS is a high performance alternative to conventional coaxial cable, affording greater flexibility in antenna location plus electrical isolation from the user's radio or repeater. The antenna can be located up to 10 km away while the radio/repeater remains near the user, enhancing the physical security of both the equipment and its user.

FORAX-LS is optimised to operate with radios used for tactical communications by US and allied forces. FORAX-LS transports all VHF and UHF communications waveforms including SRW, ANW2, SINCGARS, ANDVT, AM/FM voice, and Commercial and Military SATCOM.

FORAX-LS consists of a Radio Interface Unit (RIU) connected by a user-supplied optical fibre cable to an Amplifier Interface Unit (AIU). The RIU connects to the radio's antenna port using a coaxial cable. At the antenna site, the AIU connects to the customer's high-power amplifier (HPA) with a coaxial cable.

Electrical Specifications

Frequency Range	30-2600 MHz*
Supported Waveforms	All tactical waveforms** (keyline optional)
RF Connectors	TNC
RF Input Power	1-5 W Typical* 20 W Survivable
RF Out Drive Power	Up to 5 W*
Fibre Connector	SC-APC (FC-APC optional)
Fibre Type	One single mode fibre*
Fibre Range	5 dB optical loss maximum 1-10 km typical
Power Supply	18-32 VDC (AC adaptors included)
Power Consumption	
• RIU	3 W
• AIU	16 W RX / 40 W TX

* Refer to the model designations and accessories
** Switch-selectable for constant envelope or variable envelope waveforms

Environmental Specifications

Dimensions (per module)	
• Depth	166 mm
• Width	70 mm
• Height	51 mm
Weight	
• System	1.37 kg
• Module	0.69 kg
Operating Temperature	- 10°C to + 60°C
Storage Temperature	- 40°C to + 80°C



FORAX Part Number Option Selections

Part Number format: FORAX-LS-

Frequency Range	T/R Switching	TX Power	Optical Path
1 30-512 MHz 2 225-450 MHz 3 300-1000 MHz 4 1000-2600 MHz S Special	H Half-Duplex (switches between TX and RX) D Full Duplex (simultaneous TX and RX) T TX Only R RX Only	0 0 dBm 2 2 W 5 5 W (225-450 MHz) N N/A	1F One fibre (standard); internal TX/RX optical mux 2F Two fibres; separate TX/RX optical paths

Minimum quantities apply for some configurations.

Examples

FORAX-LS-1H2-1F 30-512 MHz, Half-duplex, 2W TX. Uses one fibre (both TX and RX)

FORAX-LS-2H4-1F 225-450 MHz, Half-duplex, 5W TX. Uses one fibre (both TX and RX)

FORAX-LS-1D2-2F 30-512 MHz, Full duplex, 2W TX. Uses two fibres (separate TX/RX)

FORAX-LS-3D2-2F 300-1000 MHz, Full Duplex, 2W TX. Uses two fibres (separate TX/RX)

Mode switch on RIU enables user to select constant envelope (CE) or variable envelope (VE) waveforms:

- Typical constant envelope waveforms include: FM including Land Mobile Radio and P25; SINCGARS; UHF MILSATCOM including DAMA and HPW; EPLRS; CDMA.
- Typical variable envelope waveforms include: analogue and digital AM; HAVE QUICK; OFDM; SRW, ANW2; WNW.

FORAX-LS Accessories

Part Number	Description
FORAX-LS-AC	Universal AC Adaptor, with international plug adaptor kit
FORAX-LS-ACK	Universal AC Adaptor, with international plug adaptor kit, with Keyline
FORAX-LS-DC-P	Cable, DC Power Pigtail
FORAX-LS-DC-PK	Cable, DC Power Pigtail, with Keyline
FORAX-LS-DC-VCL	Cable, DC Power, Vehicle Cigarette Lighter
FORAX-LS-DC-VCLK	Cable, DC Power, Vehicle Cigarette Lighter, with Keyline
FORAX-LS-DC-BB2590	Cable, DC Power, BB2590/U Battery
FORAX-SC-APC-1KM	Diamond plenum rated, SC-APC, 1 km cable length
FORAX-SC-APC-500M	Diamond plenum rated, SC-APC, 500 m cable length
FORAX-SC-APC-100M	Diamond plenum rated, SC-APC, 100 m cable length
FORAX-SC-APC-50M	Diamond plenum rated, SC-APC, 50 m cable length
FORAX-SC-APC-10M	Diamond plenum rated, SC-APC, 10 m cable length

Note: All FORAX-SC-APC are spooled both ends out. Original Manufacturer's Warranty Applies.