



Repeater Solutions for Hangars

Inmarsat & GNSS Fiber Optic Repeater Solution for Hangars



Advantages

- Testing can be done indoors at any time and in any climate
- Easy to install and maintain
- Quick return on investment (ROI)
- Fiber optic benefits: Low RF transmission loss, improved signal quality, lightning protection

Benefits

- Savings on aircraft tug and technical personnel
- Savings on heating and cooling costs
- Delivery time is improved because the entire testing process is faster

Product Description

Foxcom is offering a unique, Inmarsat & GNSS Fiber-based Repeater solution for Inmarsat BGAN satellite terminal coverage. The repeater enables transmission of Inmarsat and GNSS signals from outdoor to indoor. This solution, which provides Inmarsat coverage to bunkers and aircraft hangars, saves money because **there is no need to take aircrafts out of the hangars each time avionics systems need to be tested.**

The Inmarsat fiber repeater system is supplied as a ready-to-install kit that includes an outdoor rated unit (ODU*), an indoor unit, cabling and antennas.

* ODU unit is supplied with an IP65 outdoor-rated, AC to DC power supply

A dual-zone system is available for a hangar that requires double the coverage or separate support area.

The fiber optic cable between the indoor and outdoor units enables remote and flexible placement of outdoor antennas.

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Specifications

Inmarsat Repeater Specifications		
Downlink (DL)		
Frequency range	1525–1559MHz	
RF input/ RF output VSWR	1:1.6	
DL RF input signal range [total power]	Up to -20dBm	
Downlink gain	48dB (± 10 dB Adjustable)	
DL Noise figure	<5dB	
Uplink (UL)		
Frequency range	1626.5–1660.5MHz	
RF input/ RF output VSWR	1:1.6	
UL RF input signal range [total power]	Up to -20dBm	
Uplink gain	48 (± 10 dB Adjustable)	
UL Noise figure	<20dB	
GNSS Support Specifications		
GPS support type	L1/L2/L5	
GLONASS support	G1/G2/G5	
Galileo support	E6/E5	
Antenna Information¹	Outdoor	Indoor
Inmarsat	Directional RHCP	Directional RHCP
GNSS ²	Active saw filtered Omni	Passive Omni
Optic Specifications		
Optical connector	Single FC-APC	
Operating wavelength	CWDM	
Laser optical power output	+3dBm	
Optical Budget	3dB (~5Km)	

¹ Standard system: Two Indoor antennas: one transmits and one receives
Optional: Dual system with 4 indoor antennas available.

² L2/L5, G2/G3 GNSS use separate indoor and outdoor antennas

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Physical/Electrical

	Outdoor unit	Indoor unit
RF connectors	N-Type (F)	N-Type (F)
Dimensions	34cmL x 29cmW x 14.2cmH	34cmL x 29cmW x 14.2cmH
Enclosure type	Wall/Pole Mount	Wall mount
Operating temperature	-30 to +55° C	-30 to +55° C
Powering	100-220VAC 50-60Hz (2A Max)	100-220VAC 50-60Hz (0.5A Max)

Ordering Information

Model Number	Description
INMRKIT01-H-L1	Hangar optimized Inmarsat/GPSL1 optical repeater kit: Contains an IP65 outdoor-rated repeater unit and an indoor unit with adjustable Uplink/Downlink gain control. Both sections are powered by a 100-220VAC 50-60Hz AC-DC PS. Kit is supplied with a high performance Inmarsat outdoor RHCP directional antenna, Inmarsat indoor directional RHCP antenna, 1 x 5m LMR400 antenna cable, and 1 x 20m LMR400 RF cable. System supports Inmarsat BGAN services and GPS L1, BeiDou B1, Galileo E1.
INMRKIT01-H-L125	Hangar optimized Inmarsat/GPSL1, 2, 5 optical repeater kit: Contains an IP65 outdoor-rated repeater unit and an indoor unit with adjustable Uplink/Downlink gain control. Both sections are powered by a 100-220VAC 50-60Hz AC-DC PS. Kit is supplied with a high performance Inmarsat outdoor RHCP directional antenna, Inmarsat indoor directional RHCP antenna, outdoor GPS Active antenna, Indoor GPS antenna, 2 x 5m LMR400 antenna cable, and 2 x 20m LMR400 RF cable. System supports Inmarsat BGAN services and GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b.
INMRKIT01-DH-L1	Hangar optimized Inmarsat/GPSL1 Dual Zone optical repeater kit: Contains an IP65 outdoor-rated repeater unit and two indoor units with adjustable Uplink/Downlink gain control. Both sections are powered by a 100-220VAC 50-60Hz AC-DC PS. Kit is supplied with a high performance Inmarsat outdoor RHCP directional antenna, Inmarsat indoor directional RHCP antenna, 1 x 5m LMR400 antenna cable, and 2 x 20m LMR400 RF cable. System supports Inmarsat BGAN services and GPS L1, BeiDou B1.
INMRKIT01-DH-L125	Hangar optimized Inmarsat/GPSL1, 2, 5 Dual Zone optical repeater kit: Contains an IP65 outdoor-rated repeater unit and two indoor units with adjustable Uplink/Downlink gain control. Both sections are powered by a 100-220VAC 50-60Hz AC-DC PS. Kit is supplied with a high performance Inmarsat outdoor RHCP directional antenna, Inmarsat indoor directional RHCP antenna, outdoor GPS Active antenna, indoor GPS antenna, 2 x 5m LMR400 antenna cable, and 4 x 20m LMR400 RF cable. System supports Inmarsat BGAN services and GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b.