



## GPS / GNSS Solutions

### GPS/GNSS Fiber Optic Repeater



#### Features

- GPS / GNSS support (GPS Glonass & Galileo)
- High efficiency directional indoor retransmitting antenna

#### Applications

- Aircraft hangars
- Border surveillance
- Fire/Police stations
- Tunnels
- Data centers
- Fleet management
- Military bunkers

## Product Description

Foxcom's GPS/GNSS optical repeater solution is the ideal solution for retransmitting GPS/GNSS signals indoors.

The repeater system provides seamless coverage inside a hangar or a large facility enabling the testing of navigational systems.

The Repeater Kit consists of an Outdoor Unit (ODU), an Indoor Unit (IDU), antennas cables and a power supply (PS). Using top RF-Noise performance and a unique indoor directional RHCP antenna, the system provides better coverage, consumes less power and adds less distortion than compatible systems.

The fiber optic line between the indoor and outdoor units enables remote and flexible placement of outdoor antennas. Users can enjoy the many benefits that optical fiber has to offer, such as low RF transmission loss, improved signal quality, lightning protection, safety and ease of installation.

## System Specifications

Fiber Optical Repeater Specifications		
Frequency range	1164–1610MHz	
ODU input / IDU output VSWR	1:1.6dBm	
ODU RF input signal range [total power]	Up to -20dBm	
Noise Figure]	<2dB	
Optical Specifications		
Required fiber type	SMF -28 or equivalent [single mode]	
Optical wavelength	1310±10nm	
ODU optical power output	-3dBm / 0.5mW (Min)	
Optical connector	FC-APC	
Fiber length	3Km max (2dB)	
Physical Specifications	Indoor	Outdoor
RF Connectors	Single SMA Female	
Dimensions	Compact	11.5" x 16.5" x 3.5"
Operating temperature	-20 to +55°C	-30 to +55°C

# GPS/ GNSS Solution

## Ordering Information

A	B	C	D	E	F
Solution Type	System Base	Support Bands	Antennas	Cables	Options
R-Repeater L-Link	C- Coaxial O- Optical	U-Upper L-Band L-Lower L-Band B-Universal	0-Not Included 1-Outdoor 2-Outdoor + Indoor 3-Outdoor + direct indoor 4-Outdoor + X2 direct indoor	0- Not included 1- 5 meter LMR 300 2- 2x10M LMR 300 3- 2x20M LMR 300 4- 3x10M LMR 300	1-Dual transmit zone

Model Number	Description
GPS-R-F-B-0-0-0	<b>Optical</b> based GNSS repeater, support for L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b. composed of Compact indoor unit (GPS-R-F-B-0-0-0-C1) and an IP65 Outdoor Unit (GPS-R-F-B-0-0-0-G2). Require a single mode fiber connection terminated with FC-APC optical connectors. 12V LNA Voltage, adjustable Gain. <b>Single transmit zone.</b> Supplied with 100-220 AC to DC Power adapter for indoor unit, ODU unit is AC powered. Single transmit zone. N-Type female RF Connector on ODU Unit, SMA female On IDU unit.
GPS-R-F-B-0-0-1	<b>Optical</b> based GNSS repeater, support for L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b. composed of Compact indoor unit (GPS-R-F-B-0-0-1-C1) and an IP65 Outdoor Unit (GPS-R-F-B-0-0-0-G2). Requires a single mode fiber connection terminated with FC-APC optical connectors. 12V LNA Voltage, adjustable Gain. <b>Dual transmit zone.</b> Supplied with 100-220 AC to DC Power adapter for indoor unit, ODU unit is AC powered. Dual transmit zone. N-Type female RF Connector on ODU Unit, SMA female On IDU unit.
GPS Accessories	
RX GPS Antenna	
4700023	FOXANT-R-R-155-161-TF-4-01 High Gain GNSS Active receive antenna, Gain >4dBi 1559-1610 RHCP Outdoor rated antenna with built in high gain 40dB LNA and band pass immunity filter. Support for GPS L1, BeiDou B1, Galileo E1, GLONASS L1 and SBAS. Supplied with mounting bracket. TNC Female RF Connector.
4700027	FOXANT-R-R-121-161-TF-4-01 High Gain GNSS Active receive antenna, Gain >4dBi 1215-1610 RHCP Outdoor rated antenna with built in high gain 40dB LNA and band pass immunity filter. Support for GPS L1/L2, GLONASS G1/G2, Galileo E1, BeiDou B1, and SBAS (WAAS, EGNOS & MSAS), Supplied with mounting Bracket. TNC Female RF Connector.

## GPS/ GNSS Solution

4700024

FOXANT-R-R-116-161-TF-4-01

High Gain GNSS Active receive antenna, Gain >4dBi 1164-1610 RHCP Outdoor rated antenna with built in high gain 40dB LNA and band pass immunity filter. Support for GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b, Supplied with mounting Bracket. TNC Female RF Connector.

TX GPS Antenna

4700028

FOXANT-R-D-121-161-TF-0-00

GNSS/Iridium Passive Omni antenna, Gain >4dBi 1215-1610 RHCP for Transmit & Receive. Iridium, GPS L1/L2, GLONASS G1/G2, Galileo E1, BeiDou B1, and SBAS (WAAS, EGNOS & MSAS), Supplied with mounting Bracket. TNC Female RF Connector.

4700025

FOXANT-R-D-116-161-TF-0-00

GNSS/Iridium Passive Omni antenna, Gain >4dBi 1164-1610 RHCP for Transmit & Receive. Support for Iridium, GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b, Supplied with mounting Bracket. TNC Female RF Connector.

4700030

FOXANT-R-D-155-161-TF-0-04

Hangar optimized GNSS/Iridium Passive Directional antenna, Gain >9.7dBi, 1559-1610 RHCP Transmit & Receive. Support for Iridium, GPS L1, BeiDou B1, Galileo E1, GLONASS L1 and SBAS. Supplied with mounting Bracket. TNC Female RF Connector.