



Compact Repeater Solutions

Mini GNSS Repeater



Features

- GNSS Repeater module support for GPS, Glonass, Galileo and Beidou
- Compact, lightweight, easy to install and operate
- On board RF signal filtering
- Daisy chain multiple modules for increased coverage with a single PS.
- Outdoor Antenna Health Monitoring
- RF Over Gain / Oscillation Protection

Product Description

Global Foxcom's New Mini GNSS repeater module is an innovative solution for re-transmitting GNSS signals indoor. The module is equipped with unique features and provides top-notch RF performance while consuming less power compared to competitive systems.

Using a calibrated RF Gain Dip switch array, the Mini GNSS repeater module enables easy gain adjustment for optimal coverage. The Band Pass filter embedded inside the module blocks unwanted off-air signals and prevents them from being transmitted inside the facility to ensure reliable and constant operation.

The Mini GNSS repeater module monitors and provides information on the operation status of the outdoor antenna. When the outdoor antenna placement is limited, using the coupling port multiple Mini GNSS modules can be connected in series to provide a large-area GNSS signal distribution network.

To prevent the risk of misalignment, the Mini GNSS repeater is equipped with a smart signal-limit function. This function detects when the power output is too high or Oscillation cases and it limits the output levels.

The unique Directional RHCP variant enables operators to provide seamless coverage and testing of aircraft navigational systems inside a hangar or a large facility by extending signal transmission.

The Mini GNSS is equipped with two transmit ports and supports one or two zones, which supports indoor coverage of up to 1500m². The coupling port and Daisy chain multiple modules provide unlimited coverage areas.

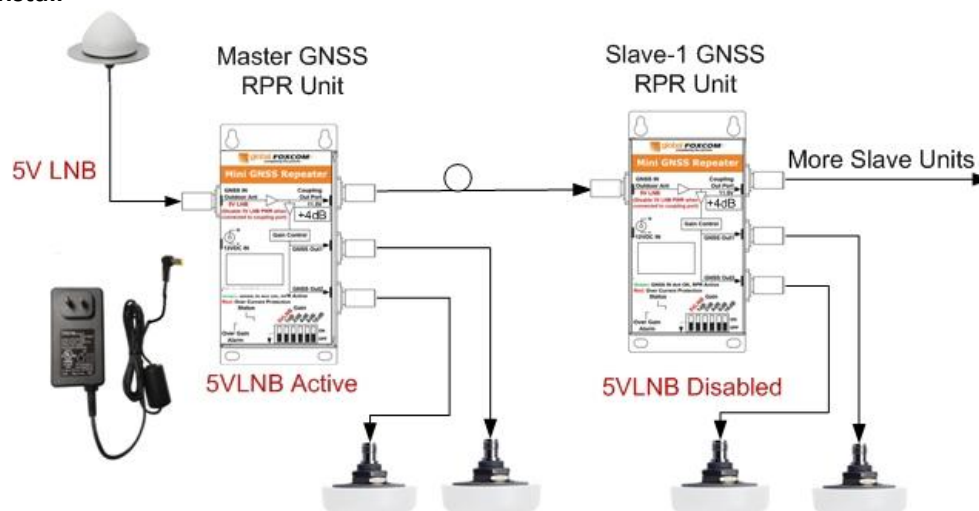
The DC feature on the unit's coupling port, enables one PS to provide power for multiple units.

Compact Repeater Solutions

The Mini GNSS and the Global Foxcom Repeater Solution can be used in a variety of cases:

Aircraft Hangars	Border surveillance	Fire/Police stations
Tunnels	Data centers	Fleet management
Military bunkers	Manufacturing facilities	Metro station

Daisy Chain Install



Mini GNSS Module Specifications

GNSS Repeater System	
RF Specification	
System frequency range	1164–1610MHz (Filtered)
Satellite support	GPS L1/L2/L5/L6, Glonass G1/G2/G3, Galileo E1/E5/E6, Beidou B1/B3/B2
Gain	0-30dB (Calibrated, 1dB steps)
Return loss	>10dB
No of Output ports/Supported indoor antenna	2
Outdoor antenna Type Support	Foxcom Active L1/L2/L5
Indoor antenna Type Support	Foxcom Passive L1/L2/L5 RHCP Standard or Directional
Outdoor Antenna recommended cable loss	<10dB
Indoor recommended cable loss	<5dB
Gain Monitoring/Protection	Over Gain/Oscillation Detection
Electrical Specification	
Operating voltage/Current consumption	12VDC/0.3A
NA RX Antenna Monitoring	Open/Over Current
Coupling port Voltage	12VDC $\pm$ 0.5V
Physical Specifications	
Operating temperature	-10°C – 65°C
Storage temperature	-40°C – 80°C
Humidity	95% @ 35°C Non-condensing
RF connectors	TNC Female

Ordering information

Model Number	Description
MGNNS-R-30-DZ-04-TF	Mini Coaxial GNSS repeater, support for GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b. 5V LNA Voltage, Dip Switch adjustable Gain. Dual transmit zone, +4dB inline output port for daisy chain additional units, Antenna Fail and RF Oscillation Auto protection. requires MGPR-PS. TNC Female RF connector.

Accessories

Model Number	Description
MGPR-PS-EU	AC to DC power supply adapter 100-240 VAC 50-60Hz, 12V 1.6A. EU power socket
MGPR-PS-US	AC to DC power supply adapter 100-240 VAC 50-60Hz, 12V 1.6A. US power socket

Contact Us for MiniGNSS Ordering Options