

GPS/GLONASS Indoor Signal Amplifier Antenna Kit

MODEL: RA-650

Use GPS/GLONASS Indoor production line & Project research and development test----



- Fully waterproof at IPX8 rating
- Cable length as long as 30m RF cable
- Re-radiating range as long as 3-5m

Features :

- **Excellent Signal Reception:** Re-radiating distance is around 3-5 meters from the Reradiator. In addition, full receiver visibility of GPS/GLONASS satellites outdoor comes along with an amplified re-radiated signal indoor.
- **Highly Integrated System:** Designed to operate as a whole, the system kits are composed of a high-gain external GPS/GLONASS antenna, a precisely calibrated amplifier circuit with a Patch type indoor Reradiator and a built-in power supply regulator that provides systems with power. The unit is designed as plug-n-play hardware and it can be installed either permanently to a secured location or quickly at users' convenience by using either screw mounting or glass suction cup, respectively, for the indoor reradiating active patch antenna.
- **Efficiency & Convenience:** The Reradiator transmits real time data throughout the vehicle directly to an unlimited number of users. Multiple GPS/GLONASS receivers or hand-helds can share just one reradiating to receive timely data.
- **Power Saving:** Thanks to its GPS/GLONASS Power Saver design, the system uses an independent power supply source, saving users from the need of other power source for their GPS/GLONASS unit.
- **Easy-to-Setup:** No additional cables are required and no external GPS/GLONASS antennas are needed to be plugged and unplugged when using a GPS/GLONASS receiver inside the vehicle.

Applications :

- LABORATORY
- OFFICES
- VARIOUS KINDS OF TRANSPORTATION MEANS, SUCH AS TRUCKS, TRAINS, SHIPS, SAILING BOATS & BUSES

Features:

1. Extra-high Gain and Low Noise
2. All Voltage (3.0V~5.5 V) can be available in one.
3. Extra-low current consumption in low voltage.

6. Various accessories are available.

Configuration:

1. Two Ports : RF Input Port and DC Input Port. RF Input is connected to the Active GPS+GLONASS antenna. DC Input is fed by DC voltage (typical is 5 voltage).
2. RF Input is amplified by at least 28 dB gain and then, the amplified signal is radiated from Patch antenna. The Patch antenna is dual-band antenna for GPS plus GLONASS systems.

Specifications: **OUTDOOR Antenna MA700G**

PHYSICAL CONDITION	
Constructions:	Polycarbonate radome, detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	90.5mm(Dia.) × 108.5mm(H)
Weight:	150grams (w/o cable & connector).
Color:	Standard in ivory white, other colours available upon request.
Base mounting	FB1 1"-14 UNS
Cable & Connector	
RF cable:	CFD200-45CM
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector	N(F)
Antenna Element	
Center Frequency:	1575Mhz & 1596-1610 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Bandwidth	10 MHz min. @S11≤-10 dB, 24MHz typ. @S11<-8dB
Gain @ 10° Elevation:	2 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Power Gain:	1570 Mhz : 29db typ 1610 Mhz : 29db typ
Bandwidth:	50 MHz min.
Noise Figure:	1.5 typ
Outer Band Attenuation:	20 dB min. @ Fo +/-50 Mhz.
Supply Voltages:	2.3~5.5V DC.
Current Consumption:	2.5V : 6.6mA Typ. 3V: 8.6mA Typ. 4V: 12.6mA Typ. 5V: 16.6mA Typ.
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1570 ~1610 Mhz.
Gain:	At 90° vertical to sky 30 ± 4.5dBi (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane

Noise Figure:	2.0 max.
Axial Ratio:	3 dB max.
Bandwidth:	10MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +85°C.
Storage Temperature:	-40°C~ +90°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof.

Re-radiating antenna Specification: INDOOR Antenna

PHYSICAL CONDITION	
Constructions:	Polycarbonate radome,detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	60mm(Dia.) x 95mm(H)
Weight:	200grams (w/o cable & connector).
Color:	Standard in ivory white, other colours available upon request.
Mounting:	Bulkhead mount with 0.8 inch threaded wing nut (standard accessory).
Mounting Adapters	Pole mount to 1"-14 UNS threaded mast
Base mounting	FB1 1"-14 UNS
Cable & Connector	
RF cable:	RG174-30CM & UL1185-1M
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector	SMA(F) & USB(M)
Antenna Element	
Center Frequency:	1575-1580Mhz & 1595-1620 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Bandwidth	10 MHz min. @S11≤-10 dB, 24MHz typ. @S11<-8dB
Gain @ 10° Elevation:	2 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Power Gain:	1570 Mhz : 29db typ 1615 Mhz : 29db typ
Bandwidth:	50 MHz min.
Noise Figure:	1.5 typ
Filter	SAW Filter Att 35 dB min @ f < 1.5 GHz Att 40 dB min @ f > 1.7 GHz * f: frequency
Supply Voltages:	2.3~5.5V DC.

Current Consumption:	2.5V : 6.6mA Typ. 3V: 8.6mA Typ. 4V: 12.6mA Typ. 5V: 16.6mA Typ.
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1570 ~1620 Mhz.
Gain:	At 90° vertical to sky 30 ± 4.5dBi (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	2.0 max.
Axial Ratio:	3 dB max.
Bandwidth:	10MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +85°C.
Storage Temperature:	-40°C~ +90°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof.
accessories	AC-DC 100-240 TO 5V USB(F) ADAPTOR N(M)-CFD200-30M-SMA(M)

* This specification is subject to change without prior notice

