GPS 室內訊號放大器天線組

MODEL: RA-100

適用於 GPS 生產測試線&室內地下室停車場/賣場----

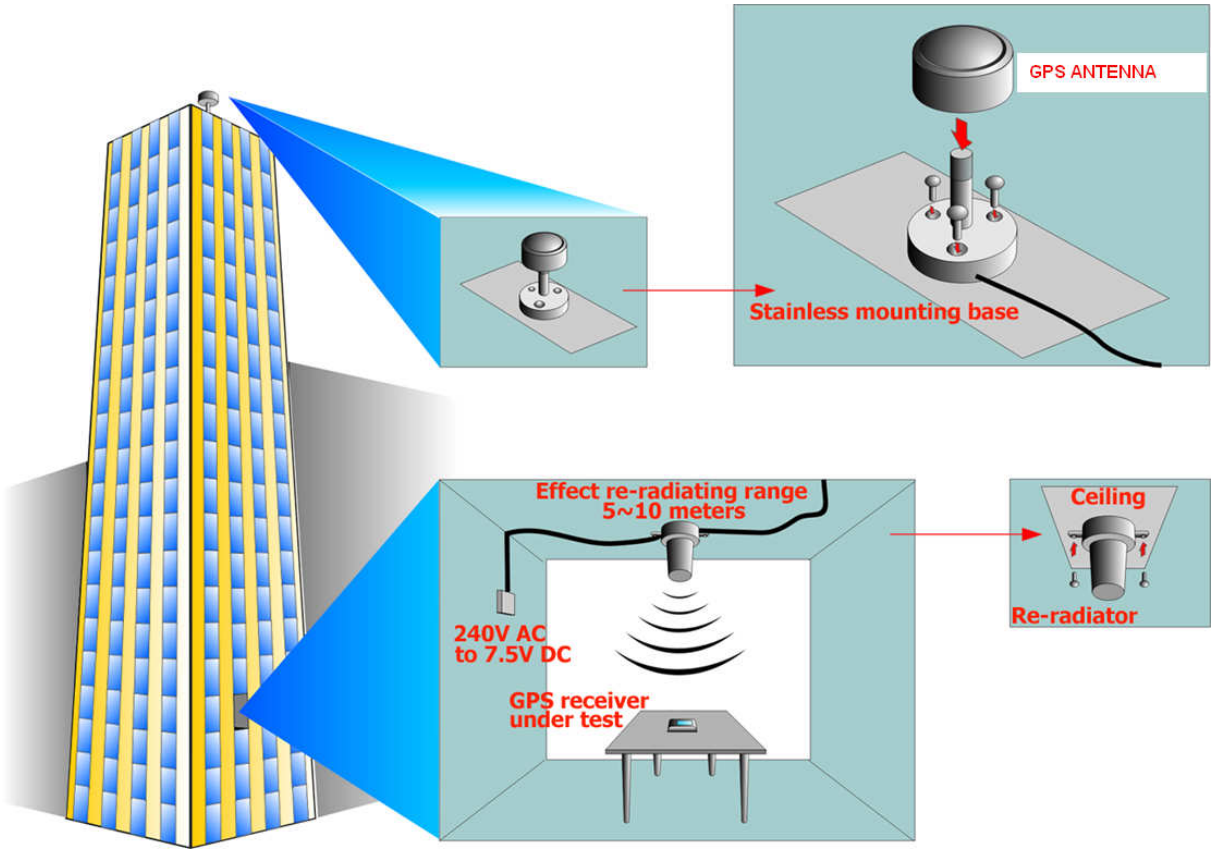
- Fully waterproof at IP66 rating
- Cable length as long as 40m RF cable
- Re-radiating range as long as 10-12m

RA-100 is a complete GPS L1 band signal re-radiating system with dual antennas to re-transmit real-time GPS satellite outdoor reception to an indoor environment. The system kits include a high gain external GPS antenna, a precisely calibrated amplifier circuit with Helix type re-radiator, and a built-in power supply regulator. The Helix type re-radiator allows multiple GPS receivers perform on-the-fly receiver performance within a closed environment, while the main GPS antenna is located on an unmanned outdoor location. GPS L1 signal is a 1575.42Mhz frequency along with a 1.023Mbps Bi-Phase Shift Keying (BPSK) modulated spreading code. The input signal power at the receiving antenna is approximately 130dBm (spreading over 2Mhz), so the desire signal is below the thermal noise floor. The whole system is designed as PNP (Plug-and-Play) hardware and it can be installed either temporarily or permanently to a secured location by using whether dashboard suction cup or screws.Wherever in lab/building/underground garage, **RA-100** guarantees to bring and re-radiate GPS signal that meets your requirement.

Features：

- **Excellent Signal Reception:** Re-radiating distance is around 10-12 meters from the Reradiator. In addition, full receiver visibility of GPS 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 antenna, a precisely calibrated amplifier circuit with a Helix 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 helix antenna.

- **Efficiency & Convenience:** The Reradiator transmits real time data throughout the vehicle directly to an unlimited number of users. Multiple GPS receivers or hand-helds can share just one reradiating to receive timely data.
- **Power Saving:** Thanks to its GPS Power Saver desgin, the system uses an independent power supply source, saving users from the need of other power source for their GPS unit.
- **Easy-to-Setup:** No additional cables are required and no external GPS antennas are needed to be plugged and unplugged when using a GPS receiver inside the vehicle.



RA-100 Interconnection Diagram

Applications：

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

SPECIFICATIONS:

Specifications					
External Antenna Electrical Specifications, TA=25°C (Cable=40m)					
Description	Parameter	Min	Typ	Max	Units
Frequency	L1 band		1.575		GHz
Bandwidth			50		MHz

Amp Gain			28		dB
Noise Figure			1.3		dB
Output SWR			2.0:1		ratio
DC Input		4.5		5.5	Vdc
Re-Radiating Antenna System Electrical Specification, TA=25°C					
Description	Parameter	Min	Typ	Max	Units
Frequency	L1 band		1.575		GHz
Bandwidth			20		MHz
Impedance			50		ohm
Gain			30		dB
Noise Figure			2.0		dB
Output SWR			1.6:1		ratio
Element	Helix type				
Polarization	RHCP				
RF Out	at 1dB gain compression		-2.0		dBm
DC Input		+7.5		+12	Vdc
Current Consumption			60mA +/- 5% @ 7.5V Dc		mA
Re-radiating Distance: around 10~12 meters from the re-radiating antenna					

* This specification is subject to change without prior notice