### **GPS Over Fiber**





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GPS Single-Band RF Over Fiber Repeater is a GPS signal forwarding system with low cost, which is specially designed and developed for users of different industries in the weak indoor signal and small coverage area when GPS receivers are produced, tested or used. The system consists of two parts: Tx Unit and Rx Unit. The Tx Unit captures the GPS satellite via outdoor donor antenna, then converts it into optic signal and transmits the amplified signal to the Rx Unit via fiber optic cable. The Rx Unit will reconvert the optic signal into RF signal and provide the signal to the weak/blind coverage area. So that the GPS receivers within the signal coverage can receive the GPS signal, realizing the function of real-time positioning timing signal enhancement.

### **Key features**

1575.42±10MHz MHZ

- Point-to-point configurations, using existing fibers in building, electrical isolation from lightning strikes, long distances.
- > Star configurations, distributing the single point GNSS signal, e.g. to timing instrumentation in campus or factory area.
- > RF over Fiber Components and Systems, satellite Communication (commercial and military).
- GPS signal distribution, DAS (Distributed Antenna System).



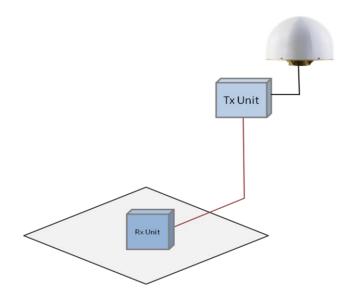
# **Specifications**

#### **Technical characteristics**

Items		Specifications
System		GPS
Frequency Range		L1:1575.42±10MHz
Gain		$10\pm3$ dB
Noise Figure		≤ 14dB
Max. Input at 1dB Compression		-20dBm
Max. Input Power for No Damage		+15dBm
VSWR		≤ 2.0
OIP3		7dBm
Time Delay		≤ 5μSec
RF Connector	Tx Unit	1xSMA-Female
	Rx Unit	1xSMA-Female
<b>Optic Connector</b>	Tx Unit	1XFC/APC
	Rx Unit	1XFC/APC
I/O Impedance		$50\Omega$
Power Supply		Input: AC220V,Output:DC9V
Weight		≤500g
Dimensions		90x95x23mm(Detailed information is in accordant with the final product)
Application		Indoor(IP30)
Temperature Range		-25°C ~ +55°C

## **Applications**

To expand signal coverage or fill signal blind area where GPS signal is weak or unavailable.



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