

# GPS Over Fiber



1575.42±10MHz MHz

JTDGIG-F1T&ATGBG-F2R

JIETONG DIGITAL

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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

- 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±3dB	
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
Optic Connector	Tx Unit	1XFC/APC
	Rx Unit	1XFC/APC
I/O Impedance	50Ω	
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

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

