

# GPS Over Fiber

## OS2xxx Serial



- ✧ Designed for 5G Timing and indoor signal forwarding applications;
- ✧ Frequency range:1150~1650Mhz;
- ✧ Gain:Fixed gain of 40dB;
- ✧ Transmission Power: 8dBm
- ✧ Receive sensitivity: -30dBm
- ✧ Optical fiber long-distance signal transmission up to 60KM;
- ✧ Power supply: dual 48V
- ✧ TX Optical Ports:1/4/8(Optional)

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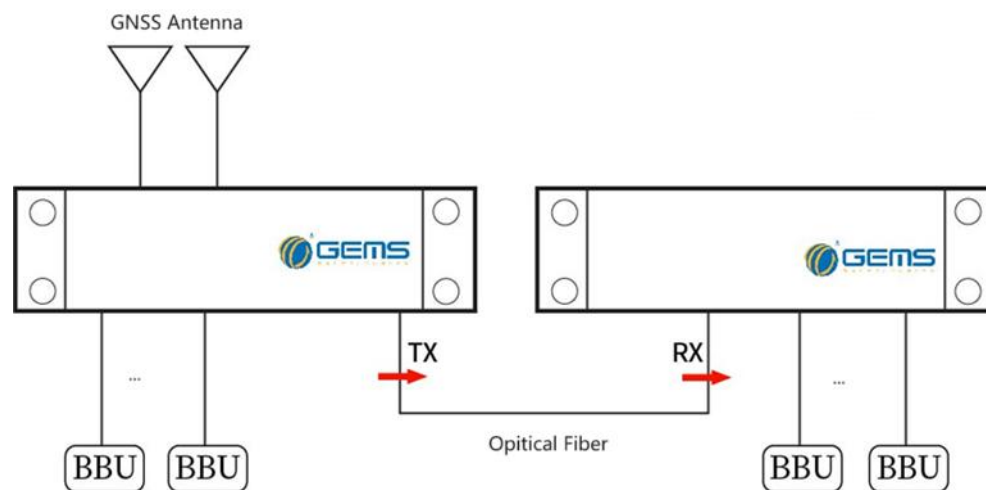
## Description

The OS2xxx serial product is a two antennas input GPS over fiber system. It is powered by dual 48V DC power supply to guarantee the stable operation of the system. The antenna interface connects to outdoor GPS antenna. The satellite signals received by TX unit, the TX unit converts GPS signals into optical signals, Transmission through optical fibers, the RX unit converts optical signal into GPS(RF) signals, and offer GPS signals to the RF output ports, the output ports connect to GPS receivers(BBU) or repeater antenna(for re-radiation).

## Electrical parameters

Parameter	Specification	Min.	Nominal	Max.	Unit
Frequency range	RF ports	1150		1650	MHz
I/O impedance	Input, all output ports		50		$\Omega$
Gain	40dB	38		41	dB
Input VSWR	Ant1, Ant2			2.0:1	-
Output VSWR	J1~J8			1.5:1	-
Noise figure				4	dB
Pass band ripple	Antenna – unused port – 50 $\Omega$ load			3	dB
Maximum output power	Antenna – unused port – 50 $\Omega$ load	-30			dBm
DC input	48V	36	48	57	
Current	48V			140	mA
Optical wavelength	Sending		1310		nm
Optical wavelength	Receiving		1310		nm
Optical output power	25°C Sending (OS2108TX)		8	9	dBm
	25°C Sending (OS2808TX)		-2	-1	dBm
Optical receive power	25°C Receiving (OS2108RX/OS2116RX)	-30			dBm
Light delay			5		ns
Optical fiber transmission distance	Sending (Remote unit)			50	Km
Optical connectors	All optical ports		FC-APC		
Antenna Ports	OS2xxxTX Serial		2		Pcs
	OS2xxxRX Serial		0		Pcs
	OS2xxxTR Serial				
RF Output Ports	OS2108TX/OS2808TX		8		Pcs
	OS2108RX		8		Pcs
	OS2116RX		16		Pcs
Optical Ports	OS2108TX		1		Pcs
	OS2808TX		8		Pcs
	OS2xxxRX		1		Pcs
Working temperature		-20		65	°C
Storage temperature		-30		80	°C

## System connection

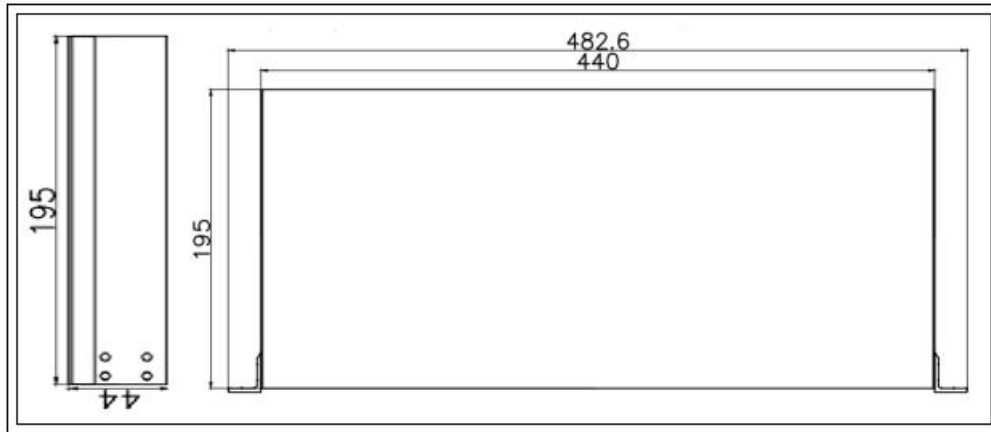


### TX to RX

Optical fiber interface (round FC-APC interface) is used as the interface of transmitting signal remotely between Remote unit and local unit via optical fibers



## Product Dimensions



## Ordering Informations

### OS2108TX

108TX: 1 optical transmit port; 8 RF ports;  
808TX: 8 optical transmit port; 8 RF ports;  
116TX: 1 optical transmit port; 16 RF ports;  
108TR: 8 RF ports; 1 optical transmit port; 1 optical receive port;  
116TR: 16 RF ports; 1 optical transmit port; 1 optical receive port;  
108RX: 1 optical receive port; 8 RF ports;  
116RX: 1 optical receive port; 16 RF ports;