

Rof-DTS-3G series analog photoelectric receiver

Rof-DTS-3G series analog photoelectric receiver has a wide band from 300Hz to 3GHz and flat photoelectric response characteristics, and also integrates digital communication function, automatic gain control, etc., which can not only carry out digital communication with the transmitter, but also automatically compensate for optical link loss changes with high compensation accuracy. It is a very cost-effective multi-functional photoelectric receiver. The receiver is powered by an internal rechargeable lithium battery, which reduces the noise input of the external power supply and facilitates the use of the external field. It is mainly used in optical pulse signal detection, ultra-wideband analog optical signal receiving and other system fields.

Feature

- Working wavelength: 1310nm
- Operating bandwidth: 300Hz (ultra-low frequency) ~3GHz
(We also have a type of 10KHz~6GHz)
- Low noise, high gain
- Automatic compensation for optical link insertion loss
- With digital communication, charging, PC control and other functions
- Gain 800 to 850 V/W



Application

- Optical pulse signal detection
- Broadband analog optical signal reception

Paramete

Parameter	Symbol	Unit	Min	Typ	Max	remark	
Operating wavelength	simulate	λ_1	nm	1100	1310	1650	
	communication	λ_2	nm		1490/1550		One receive, one transmit
-3dB bandwidth	BW	Hz	300		3G		
In-band flatness	f_L	dB		± 1	± 1.5		
Minimum input optical power	Pmin	mW		1		$\lambda=1310\text{nm}$	
Maximum input optical power	Pmax	mW		10		$\lambda=1310\text{nm}$	
Link gain compensation accuracy	R	dB			± 0.1	$\lambda=1310\text{nm}$	
Conversion gain	G	V/W	800	850		$\lambda=1310\text{nm}$	
Maximum output voltage swing	Vout	Vpp		2		50 Ω	
Standing wave	S_{22}	dB		-10			
Charging voltage	P	V	DC 5				
Charging current	I	A	2				
Input connector			FC / APC				
Output connector			SMA(f)				
Communication and charging interface			Type C				

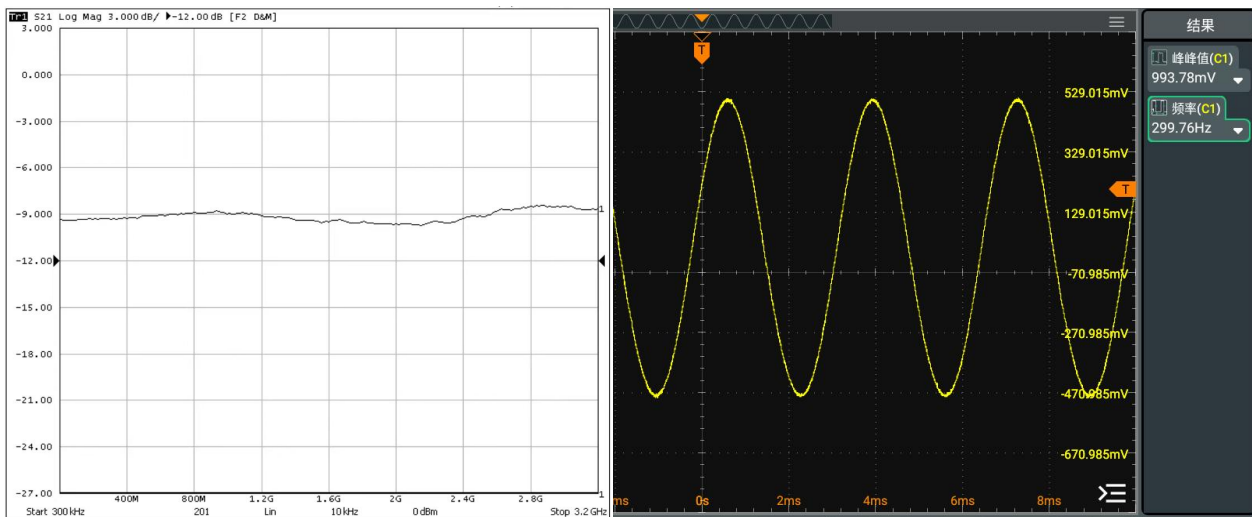


Output impedance	Z	Ω	50 Ω
Output coupling mode			AC coupling
Dimensions (L × W × H)		mm	100×45×80

Limit Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Input optical power range	Pin	mW	1		10
Operating temperature	Top	°C	5		50
Storage temperature	Tst	°C	-40		85
humidness	RH	%	10		90
Resistance to field interference	E	kV/m	20		

Characteristic Curve

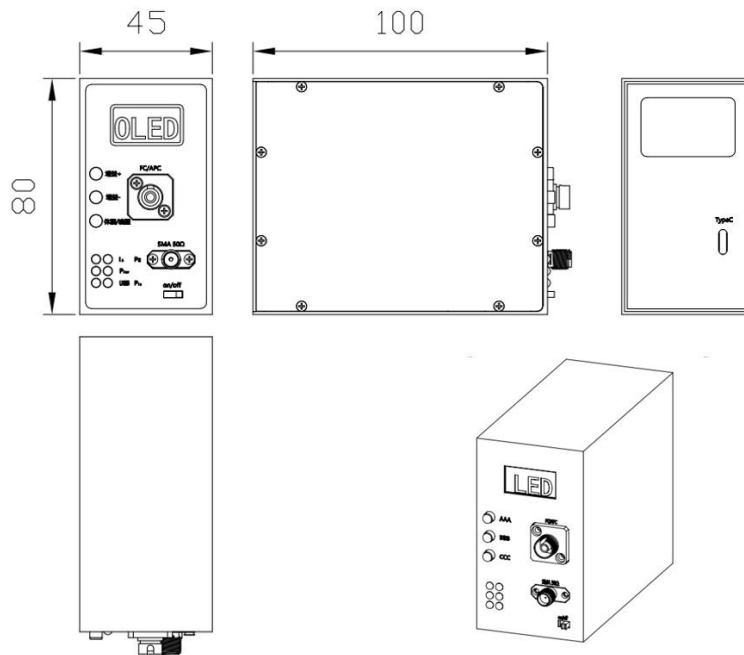


Upper Computer interface (Example)



* The upper computer can be customized according to the actual requirements of customers (can do English interface)

Structure and interface definition(mm)



(3) Schematic diagram of receiver structure

1: LED display. Display information Specific information is displayed on the previous screen.

2: Function adjustment button.

The order is gain +, gain -, sleep/wake up

Sleep/Wake button: send instructions to wake up and sleep the receiver, after the receiver sleeps only E-XX slept.

3: Function indicator.

IA: Current indicator. When powered on, the green light indicates that the receiver is working normally.

Plow: Low optical power warning light, receiving power less than 1mW lights red.

USB: USB indicator. This indicator turns on after the USB is inserted.

PS: constant optical power indicator that blinks when the power fluctuates.

Pin: The optical power input is normal, and the received power is greater than 1mW when the red light is on.

4: Optical interface flange: FC/APC

5: RF interface: SMA

6: Power switch.

7: Communication and charging interface: Type C