

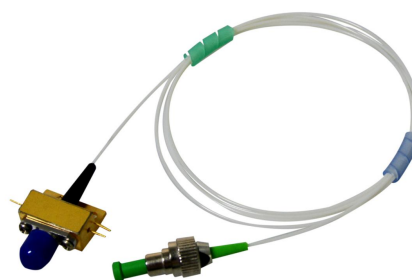
Wideband Photoreceiver Module ---HC-PD Series

Product introduction

-  HC-PD-10G/20G wideband photoreceiver module adopts high saturation power PIN high-speed detector, which has the characteristics of high bandwidth, high responsivity, flat gain and small size. The power supply of the module is DC 5V, the optical fiber interface is FC/APC, and the electrical signal is output from SMA port. It is mainly used in the fields of high-speed optical fiber transmission system, ROF and optical fiber sensing system.

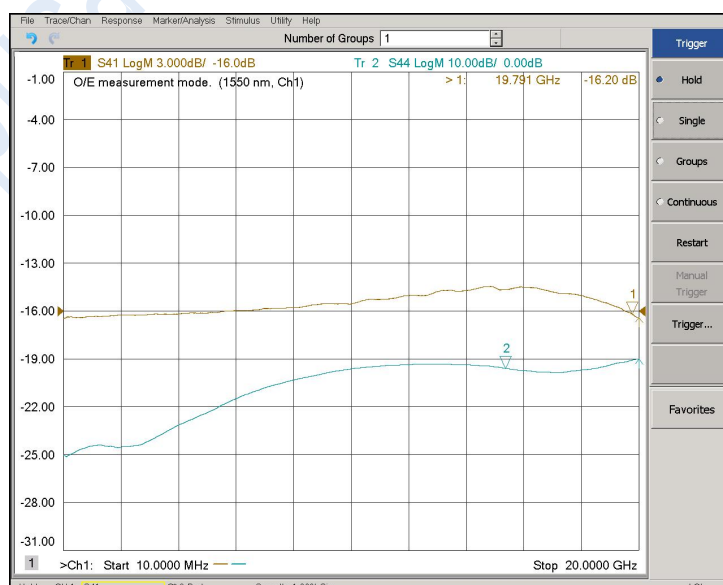
Product features

-  Spectral range: 850 ~ 1650 nm
-  3dB bandwidth greater than 20GHz
-  Responsiveness > 0.85 A/W
-  Saturated optical power 10 dBm
-  Small size
-  Hermetically sealed
-  High reliability
-  SMA/K output



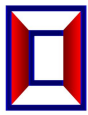
Scope of application

-  High-speed optical pulse detection
-  Microwave photonic link
-  Optical phased array radar
-  High-speed optical fiber communication system



Technical parameters

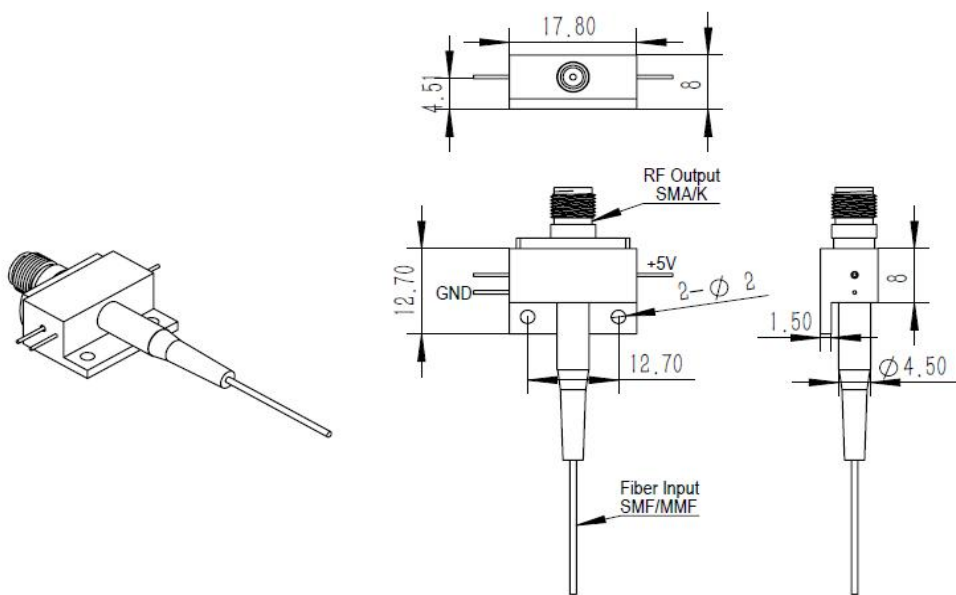
Parameter		Symbol	Unit	Minimum value	Typical value	Maximum value	Test conditions
Response Wavelength		λ	nm	800		1650	
-3dB bandwidth	-20G	BW	GHz	18	20		from 130MHz
	-10G	BW	GHz	10	12		from 130MHz
Response time	-20G	Tr	ps	18			10%~90%
	-10G	Tr	ps	30			10%~90%
Cutoff frequency		f_{low}	KHz		30		When AC is coupled
Dark current		I_d	nA			5	25°C
Output impedance		Z_t	Ω	-	50	-	
In-band flatness		ΔG	dB			3	130M-20GHz
Output impedance		R_o	Ω	-	50	-	
Optical return loss		ORL	dB	35			
Return loss		S22	dB			-10	130M-20GHz
Saturated optical power		P_s	dBm		10	-	
Responsiveness		R	A/W	0.8	0.9		$\lambda=1550\text{nm}$
Operating voltage		V_{op}	V	3.3	5		
Overall dimensions		LxWxH	mm	17.8x12.7x8			
Input fiber			Ingle-mode fiber or multimode fiber				
Fiber optic connector			FC/PC、FC/APC				



Limiting conditions

Parameter	Symbol	Unit	Minimum value	Typical value	Maximum value
Input optical power	Pin	mW			15
Operating voltage	Vop	V	3.3		20
Operating temperature	Top	°C	-40		60
Storage temperature	Tst	°C	-40		85

Mechanical dimensions in mm



Ordering Information HC-PD-WL-BW-X-F

BW = Operating Bandwidth: 10-10G, 20-20G, 50-50G

X = input fiber: SM – single mode fiber MM – multimode fiber

F = Fiber Connector: FA-FC/APC