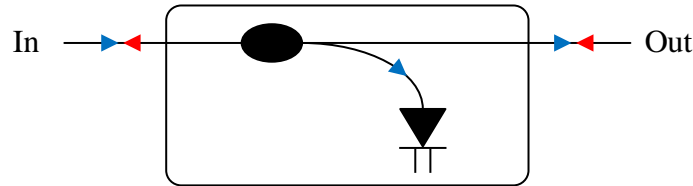


Product: Tap+ PD Hybrid

Part Number	Spec Number	Version	Date
TAPDXXXXXXXXXXXX	S026	Rev 02	09/20/2020

1 Function Diagram

This is a standard tap coupler + PD hybrid.



2 Specifications

2.1 Environment Conditions

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
1.	Operating Temperature	Top	0		70	°C	
2.	Storage Temperature	Tstor	-40		85	°C	
3.	Operating Relative Humidity	RHop	5		95	%	[1]
4.	Storage Relative Humidity	RHstor	5		95	%	[1]

Note:

[1] Not to exceed industrial standard of 0.024 kg water per kg of dry air under non-condensing conditions.

2.2 Optical Specifications

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
5.	Operation Wavelength	O Band	λ_{op}	1260~1360		nm	
		C Band	λ_{op}	1530~1570		nm	
6.	Insertion Loss	1%	IL		0.6	dB	
		2%	IL		0.7	dB	
		5%	IL		0.8	dB	
		10%	IL		1.2	dB	
7.	Polarization Dependence Loss	PDL			0.1	dB	
8.	Return Loss	RL	45			dB	
9.	Optical Power	1%	Pop		27	dBm	G
		2%	Pop		24	dBm	G
		5%	Pop		20	dBm	G
		10%	Pop		17	dBm	G

Note:

*Above specifications are for device without connector. IL is 0.3 dB higher, RL is 5 dB lower after connector added.

G: Guaranteed by design.

2.3 Electrical Specifications

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
10.	Responsivity	1%	Res	5		20	mA/W
		2%	Res	8		35	mA/W
		5%	Res	10		75	mA/W
		10%	Res	30		150	mA/W
11.	PD Directivity	Dir	15			dB	[2]
12.	Dark Current (-5V Bias)	Id			5	nA	
13.	Bias Voltage	V		-5		V	G
14.	Forward Current	I			5	mA	G
15.	Breakdown Voltage	V	20			V	G
16.	Capacitance (f=1MHZ, -5V Bias)	C			2	pF	G
17.	PD Bandwidth	BW		500		MHz	G
18.	ESD Threshold	ESD			200	V	G

Note:

[2] Directivity is defined as $-10\log(R_{out \rightarrow PD}/R_{in \rightarrow PD})$ where R stands for responsivity.

2.4 Mechanical Specifications

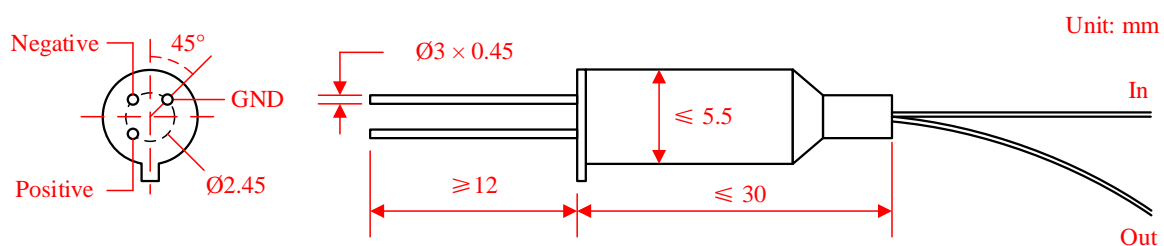
2.4.1 Specifications

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
19.	Fiber Type			G.657 A1			
20.	Fiber Length			By PN			
21.	Fiber Jacket			By PN			
22.	Connector Type			By PN			
23.	Package Dimension			See below for details			
24.	Fiber Color	In		Black			[3]
		Out		Natural			

Note:

[3] Mark the bare fiber starting at 10~30cm away from the device body to fiber end.

2.4.2 Drawings



1 Device Label, Delivery Data

Triple-Stone standard format.

2 RoHS Requirement

RoHS compliant.

3 Order Information

