

DESCRIPTION

The WPDA series module incorporates an high speed analog InGaAs photodiode with an integrated WDM filter. The photodiode is hermetically packaged in an industry standard coaxial package with two fiber pigtailed for input and output. This module is especially suited as a compact, low cost detector for FTTH, PON and bi-directional networks, where video signals are carried on 1550 nm wavelength.

FEATURES

- Low insertion and polarization dependent losses
- FTTH Wavelength Range
- High Isolation, high bandwidth to 3 GHz
- Wide operating temperature range
- RoHS and Telcordia compliant



APPLICATIONS

- Video channel receiver for FTTH PON
- Bi-directional wireless network
- CATV and DBS reception

connector

SC/APC

SC/UPC

FC/APC

FC/UPC

LC/UPC

MAXIMUM RATINGS

PARAMETER	Symbol	LIMIT
Storage Temperature	T_{ST}	-40 to +85°C
Input Power Saturation	P_{IN}	100 mW
Reverse Voltage	V_R	35 V
Forward Current	I_F	10 mA

OPTICAL AND ELECTROOPTICAL CHARACTERISTICS

(T=25 °C unless otherwise specified) All values referenced without connectors

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT
Operating Temperature	T_{OP}	0		+75	°C
Transmission Wavelength Input Port → PD	λ_T		1550 ± 20		nm
Reflection Wavelength Input Port → Output Port	λ_R		1260~1360 1480~1500		nm
Insertion Loss @ λ_R Input Port → Output Port				0.6	dB
Wavelength Dependent Loss @ λ_R Input Port → Output Port				0.2	dB
PDL @ λ_R Input Port → Output Port				0.2	dB
Isolation $\lambda_R = 1290\sim 1350$ Isolation $\lambda_R = 1480\sim 1500$		40 25			dB
Isolation λ_T @ Output Port		15			dB
Return Loss @ λ_T	RL	50			dB
Photodiode Responsivity @ λ_T	R	0.9	1550		A/W
2 nd Order Intermodulation	IMD2	Note 1		-70	dB
3 rd Order Intermodulation	IMD3			-80	dB
Photodiode Bandwidth	BW	3			GHz
Photodiode Dark Current	I_D	--	--	1	nA
Capacitance	C			0.6	pF

Note 1: 2-tone measurement at λ_T , OMI=20%, 0 dBm received power, measured below 1 GHz