

FEATURES:

- FTTP Wavelength Range
- Wide Wavelength Range
- Low Dark Current
- Low Insertion Loss
- Outside Plant Environments
- Telcordia GR-468 Compliant
- High Isolation
- Epoxy-Free Optical Path



APPLICATIONS:

- PON System Monitoring
- DWDM Channel Monitoring
- Monitor for Amplifier/Telecommunication System

DESCRIPTION:

The *Go!Foton* 1310/1550 WDM Integrated Detector is a hybrid device designed for the FTTP market. It uses a *Go!Foton* PIN Photodiode and offers low dark current and wide bandwidth performance. The WDM Integrated Detector is well suited for outdoor applications and can be offered with DBS overlay capability.

SPECIFICATION:

The products supplied to this specification shall meet or exceed all the requirements specified herein.

A. Absolute Maximum Rating

PARAMETER	SYMBOL	UNIT	SPECIFICATION			NOTES
			MIN.	TYP.	MAX.	
Operating Temperature	Top	°C	-40	-	+85	-
Operating humidity Range (No Condensation)	RH _{OP}	%	5	-	95	-
Storage Temperature Range	T _{STG}	°C	-40	-	+85	-
Storage Humidity Range (No Condensation)	RH _{STG}	%	5	-	95	-
Reverse Bias Voltage	V _R	V	-	-	25	-
Forward Current	I _F	mA	-	-	10	-
Electrostatic Discharge(ESD) Threshold ¹⁾	V _{ESD}	V	-	-	500	-
Soldering Temperature ²⁾	T _{SOL}	°C	-	250	-	-

Notes:

- 1) Capacitance :100pF, Resistance :1.5kΩ, Human Body Model
- 2) At least 2mm away from the device's body for < 10 seconds

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B. OPTICAL AND ELECTRICAL CHARACTERISTICS

Unless otherwise noted, test condition is at 1550nm, 25°C, Vr:5V.

PARAMETER	SYMBOL	UNIT	SPECIFICATION			NOTES
			MIN.	TYP.	MAX.	
Input Operating Wavelength Range	λ_{R-T}	nm	1260	-	1360	-
			1480	-	1500	-
			1545	-	1565	-
Transmission Wavelength Range	λ_T	nm	1545	-	1565	Input to PD
Reflection Wavelength Range	λ_R	nm	1260	-	1360	Input to Output
			1480	-	1500	
Responsivity	R_s	A/W	0.80	-	-	-
Insertion Loss @ λ_R	IL	dB	-	-	0.2	-
Wavelength Dependent Loss @ λ_R	WDL	dB	-	-	0.3	-
Polarization Dependent Loss @ λ_R	PDL	dB	-	-	0.2	-
Isolation @ λ_T	-	dB	12	-	-	-
Isolation @ 1260~1360nm	-	dB	45	-	-	-
Isolation @ 1480~1500nm	-	dB	40	-	-	-
Return Loss	RL	dB	45	-	-	-
Optical Power Handling	P_{op}	mW	-	-	500	-
Responsivity @ λ_T , Vr:5V	R_s	A/W	0.75	-	-	-
Linearity @ λ_T , Vr:5V	Lin	%	-10	-	10	-
Dark Current @ 25°C	I_{dRT}	nA	-	0.02	0.10	-
Dark Current @ 85°C	I_{dHT}	nA	-	-	5	-
Capacitance	C	pF	-	-	1	1MHz, Vr:5V
Bandwidth	BW	GHz	-	2.0	-	-3dB, RL=50Ω, Vr:5V

Notes:

- 1) Linearity is measured at Vr: 5V, 1550nm, +10 to -30dBm optical input to fiber.
- 2) Linearity calculation is using below formula.

$$LIN_{MAX}(\%) = \frac{R_{sMAX} - R_{sAVE}}{R_{sAVE}} \times 100$$

$$LIN_{MIN}(\%) = \frac{R_{sMIN} - R_{sAVE}}{R_{sAVE}} \times 100$$

where:

R_{sMAX} : Maximum responsivity at the entire optical input range.

R_{sMIN} : Minimum responsivity at the entire optical input range.

R_{sAVE} : Average responsivity at the entire optical input range.

C. OTHER SPECIFICATIONS

PARAMETER	SYMBOL	UNIT	SPECIFICATION	NOTES
Fiber Type	FT	-	ITU652.D Compliant Fiber	-
Fiber Length	FL	mm	1000±100	-
Fiber Coloring	FC	-	Clear	-
Optical Connector	OC	-	None	-

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D. PACKAGE DIMENSIONS

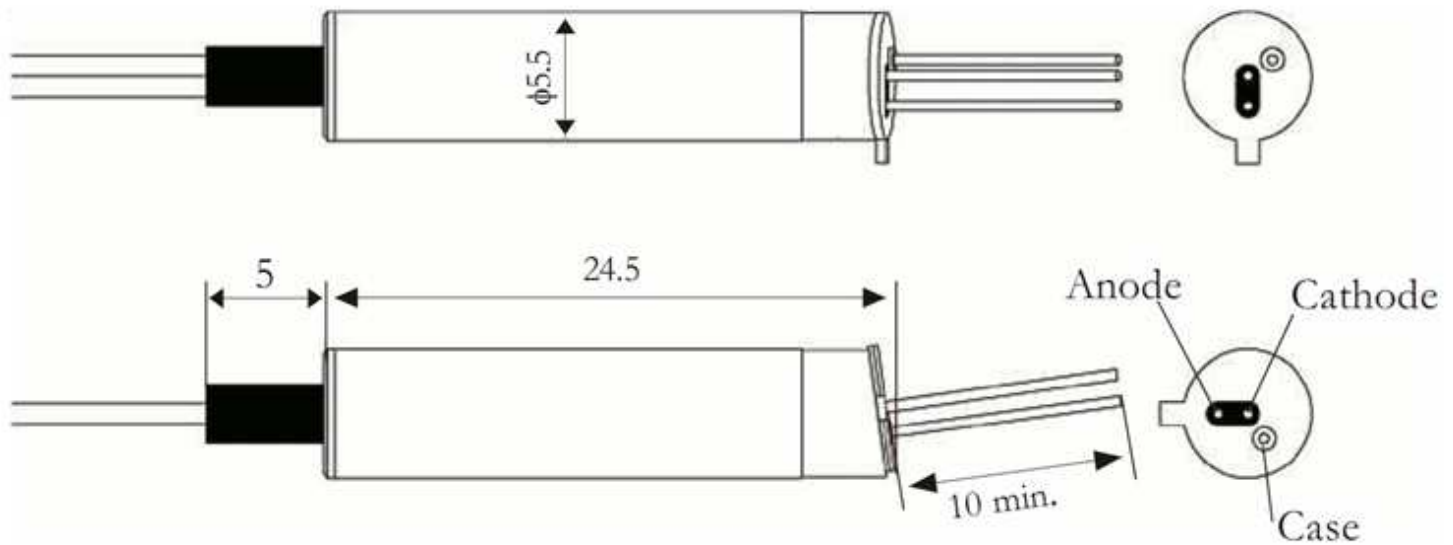


Figure 1. 1310/1550 WDM Integrated Detector

E. ORDERING INFORMATION

T	P	S		0	1								0
1	2	3	4	5	6	7	8	9	10	11			

Ordering Guide:

Please use this guide to create the product's model code.

FIELD NO.	FIELD DESCRIPTION	CODE	CODE DESCRIPTION	NOTES
1	Product Structure	TP	TAPD	Default Code.
2	Packaging Size	S	Standard Package	Default Code.
3	Product Grade	B	Bidirectional	-
		N	Non-unidirectional	-
4	Number of Channels	01	Single Channel	Default Code.
5	Tap Ratio	05	0.5%	-
		1P	1%	-
		2P	2%	-
		5P	5%	-
		10	10%	-
		30	30%	-
		50	50%	-

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FIELD NO.	FIELD DESCRIPTION	CODE	CODE DESCRIPTION	NOTES
6	Wavelength Range	C	1520-1570nm	-
		L	1570-1610nm	-
		F	1520-1610nm	-
		D	1270-1350nm+ 1520-1570nm	-
7	Fiber Type	1	250um (SMF)	-
		2	900um Loose Tube (SMF)	-
		3	900um Tight Buffer (SMF)	-
8	Fiber Length	1	1000mm	1000±100mm
		2	2000mm	2000±100mm
9	Flange/Mounting Bracket	0	No Flange	See Figure 1.
		1	With Flange	See Figure 2.
10	Connector (INPUT Port)	0	None	-
		1	FC/SPC	-
		2	FC/APC	-
		3	SC/SPC	-
		4	SC/APC	-
		5	LC/PC	-
		6	MU/PC	-
11	Connector (OUTPUT Port)	0	None	-
		1	FC/SPC	-
		2	FC/APC	-
		3	SC/SPC	-
		4	SC/APC	-
		5	LC/PC	-
		6	MU/PC	-
		7	LC/APC	-

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