1.1.1.6.3 NIR 1.5” High Speed Response, Multi-functional Integrating Sphere

600nW – 3W

IS1.5-IRG-FPD-800

Features

- Fast photodiode for pulse shape characterization of VCSELs
- Built in SMA fiber adapter for connection to a spectrometer
- Large, 20mm input port enabling long working distance
- Accepts beams with divergence angles up to ±50°
- Small integrating sphere with short time constant

Model	**IS1.5-IRG-FPD-800**
Use	**Multi-functional Integrating Sphere**

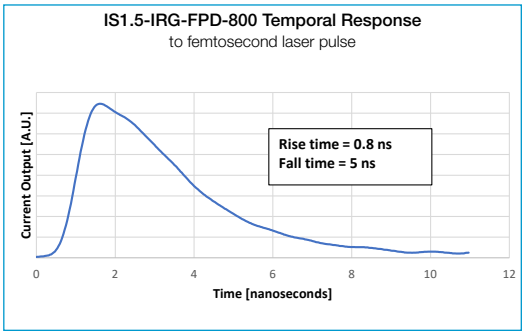
Specifications	
Input Port Aperture mm	Ø20
Maximum Beam Divergence deg°	±50
Damage Threshold on Integrating Sphere Surface W/cm²	200 (average power)
Integrating Sphere Time Constant nsec	<0.7
Fiber Optic Port	SMA connector, maximum NA 0.44
Outputs	Smart Head for power measurement, BNC (50Ω) for temporal pulse shape detection SMA for optical fiber
Cooling	Convection
Operating Temperature Range °C	+15 to +40
Storage Temperature Range °C	-20 to +60
Humidity	The product must not be exposed to high humidity. Range 20% ~ 70% RH non-condensing
Sensitivity to Beam Size and Angle	±2%

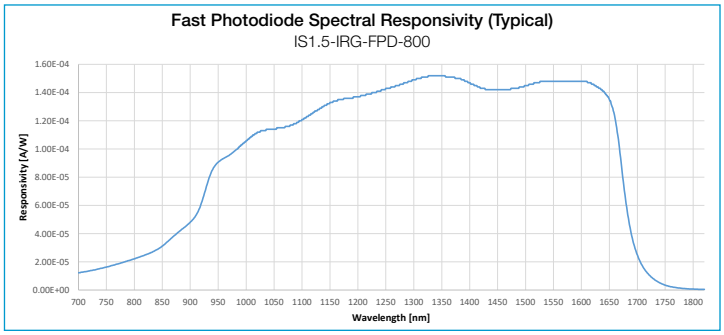
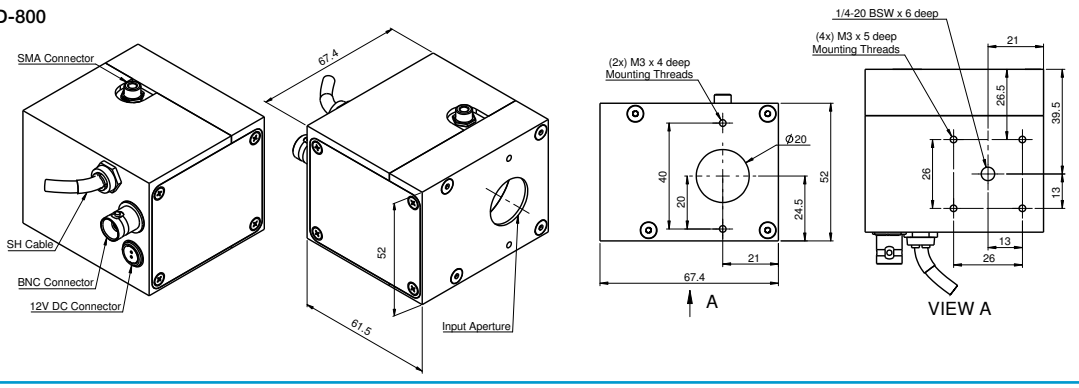
Detector 1	
Type	InGaAs photodiode, calibrated
Function	Average power
Spectral Range µm	0.94 – 1.64
Power Range	600nW – 3W
Pulse Width	Not limited
Pulse Repetition Rate [a]	Not limited
Power Scales	3W to 3µW
Power Accuracy	±3% 940nm – 1100nm, ±4% 1100nm - 1640nm
Linearity with Power ±%	2
Power Noise Level nW	30
Output	Smart Head, D15

Detector 2	
Type	Fast InGaAs photodiode
Function	Temporal pulse shape detection
Spectral Range µm	0.94 – 1.64
Rise Time (10% to 90%) nsec	0.8
Fall Time (90% to 10%) nsec	5
Bias Voltage Input V	9
Typical CW Responsivity mA/W [b]	0.14 @ 1100 - 1500nm
Dark Current nA	1
Noise Current fA/√Hz	15.5
Output	Analog current

General	
Weight g	530
Compliance	CE, UKCA, China RoHS
Part number	**7Z02493**

Notes: (a) Below 200Hz use low frequency mode in meter
(b) Responsivity data provided with sensor

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