

1.1.1.6 Integrating Spheres

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

600nW – 3W

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 $\pm 50^\circ$
- Small integrating sphere with short time constant



Model	IS1.5-IRG-FPD-800		
Use	Multi-functional Integrating Sphere		
Specifications		Detector 2	
Input Port Aperture mm	Ø20	Type	Fast InGaAs photodiode
Maximum Beam Divergence deg°	±50	Function	Temporal pulse shape detection
Damage Threshold on Integrating Sphere Surface W/cm²	200 (average power)	Spectral Range µm	0.94 – 1.64
Integrating Sphere Time Constant nsec	<0.7	Rise Time (10% to 90%) nsec	0.8
Fiber Optic Port	SMA connector, maximum NA 0.44	Fall Time (90% to 10%) nsec	5
Outputs	Smart Head for power measurement, BNC (50Ω) for temporal pulse shape detection, SMA for optical fiber	Bias Voltage Input V	9
Cooling	Convection	Typical CW Responsivity mA/W ^(b)	0.14 @ 1100 - 1500nm
Operating Temperature Range °C	+15 to +40	Dark Current nA	1
Storage Temperature Range °C	-20 to +60	Noise Current fA/√Hz	15.5
Humidity	The product must not be exposed to high humidity. Range 20% ~ 70% RH non-condensing	Output	Analog current
Sensitivity to Beam Size and Angle	±2%		
Detector 1		General	
Type	InGaAs photodiode, calibrated	Weight g	530
Function	Average power	Compliance	CE, UKCA, China RoHS
Spectral Range µm	0.94 – 1.64	Part number	7Z02493
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		

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

