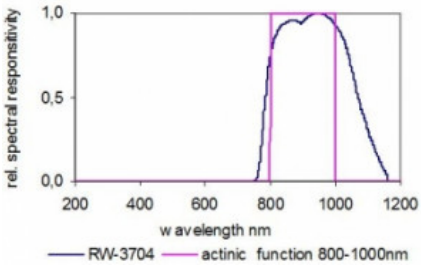
RW-3704

https://www.gigahertz-optik.com/en-us/product/rw-3704/

Product tags: NIR

Description

The spectral responsivity range of the model RW-3704 covers the NIR range from 800 nm to 1000 nm.



Typical Spectral Responsivity

General Purpose Light Measurement Detector

The RW-37 series of radiometric detectors are primarily used for spectral broadband irradiance measurements within a defined spectral range of polychromatic radiation. Optical filters are used to shape the bare photodiode response to the desired spectral bandpass. The computer aided optical filter design produces the best possible broadband radiometric response within the spectral sector specified.

Cosine Field-of-View

A cosine F.O.V. characteristic of the detectors spatial responsivity is effected by the diffusor window of RW-37 detectors.

Designed for Wide Dynamic

The RW-37 detectors are designed for the highest possible irradiance sensitivity for low irradiance level applications. Hwever the wide range linearity of the photodiodes coupled with the Gigahertz-Optik optometers's wide dynamic signal range amplifiers enable the RW-37 series detectors to be used in applications with high irradiances as well. The upper range is limited only by the detector maximum operating current and its specified operation temperature.

Compact Housing

The RW-37 series irradiance detectors are built in a compact 37mm diameter black anodized aluminum housing. The shadow ring around the diffusor support the wide-angle cosine response. A side M6 tapped mounting hole allows the detector be fixed in place. The 37-type standard housing allows other SRT-M37 type accessories to be attached using the SRT-M45/37-B adapter for radiance or intensity measurements.

Traceable Calibrations

Calibration of irradiance in W/m² and/or W/cm² as well as the detector's relative spectral responsivity is performed at Gigahertz-Optik's Calibration Laboratory. Besides the regular calibration with spectral broadband reference lamps alternative calibrations with monochromatic or custom type reference lamps can be supplied as an option. The calibration and its traceability are confirmed in the calibration certificate supplied with each detector.

Specifications

Specification			
Spectral responsivity	radiometric (800 - 1000) nm		
Typical responsivity	40 nA/(W/m²)		
Max. signal current	1 mA		
Input optics	11 mm Ø diffusor window		
Input optics	Cosine F.O.V.		
Housing	37 mm Ø, 32 mm height		
Mounting	side M6 thread hole		
Connector	coaxial cable 2 m Long, with BNC (-1), calibration data (-2) or ITT (-4) connector		
Temperature range	(5 - 40) °C		
min. signal current	depends on optometer		
Rise time	100 ns		
Measurement ranges	Sensor RW-3704	min (0.1 pA NEI) 2.50E-06	max (200 µA) 5.00E+03

Configurable with

Product Name	Product Image	Description	Go to product
P-9710		High-End Optometer for Measurement of CW-, Single Pulse and Modulated Radiation	https://www.gigahertz-optik.com/en-us/product/p-9710/
GB-GD-360-RB40		Goniometer for the measurement of 2π sources	https://www.gigahertz-optik.com/en-us/product/gb-gd-360-rb40/
X1		Four-Channel USB Optometer, Respectively Current Amplifier, Designed for Photometric and Radiometric Detectors for Mobile-Use	https://www.gigahertz-optik.com/en-us/product/x1/
X1-RM		Optometer in 3HE Housing for use in 19” Racks	https://www.gigahertz-optik.com/en-us/product/x1-rm/

Product Name	Product Image	Description	Go to product
X1-PCBCL		Optometer respectively Current Amplifier Module with 4 Input Channels and 7 Gain Ranges	https://www.gigahertz-optik.com/en-us/product/x1-pcb/
X1-PCBCL		Optometer module with 4 channels based on X1 technologie	https://www.gigahertz-optik.com/en-us/product/x1-pcbc/
TR-9600		High-Speed and Short Rise Time Data Logger Optometer (Transient Recorder Current Amplifier)	https://www.gigahertz-optik.com/en-us/product/tr-9600/
P-9802		Current Amplifier (Optometer) for Laboratory Use with up to 24 Measurement Heads	https://www.gigahertz-optik.com/en-us/product/p-9802/
P-9801		8-Channel High Class Current Amplifier/Optometer	https://www.gigahertz-optik.com/en-us/product/p-9801/
P-2000		Two-Channel Optometer	https://www.gigahertz-optik.com/en-us/product/p-2000/
x9-7		Broadband radiometer for irradiance. Features: Mobile meter. Detectors with different bandwidths and spectral ranges to select. For use with polychromatic radiation sources.	https://www.gigahertz-optik.com/en-us/product/x9-7/
P-21		Multi-Purpose Touchscreen Optometer for Measurement of CW-, Single Pulse and Modulated Radiation in any Photometric and Radiometric Application	https://www.gigahertz-optik.com/en-us/product/p-21/

Purchasing information

Article-Nr	Modell	Description
Product		
15296518	RW-3704-1	Detector head with -1 connector, calibration certificate.
15297079	RW-3704-2	Detector head with -2 connector, calibration certificate.

Article-Nr	Modell	Description
15297080	RW-3704-4	Detector head with -4 connector, calibration certificate.
15312246	RW-3704-5	Detector with –5 connector, protective cap, calibration certificate
Calibration		
15300577	K-FOV	Calibration of the F.O.V
15307521	K-RW3704-SD	Calibration of the spectral irradiance sensitivity in A/(W/m²) and A/(W/cm²) of an RW-3704 detector. Calibration of the relative spectral sensitivity from 800 nm to 1000 nm in 10 nm steps absolutely scaled with sampling point at 950 nm. Calibration certificate.
Re-calibration		
15300158	K-RW3704-I	Integral irradiance sensitive calibration in A/(W/m²) and A/(W/cm²) of the RW-3704 light detector. Calibration certificate.
15300580	K-Si-SR	Re-calibration of the relative spectral responsivity.

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