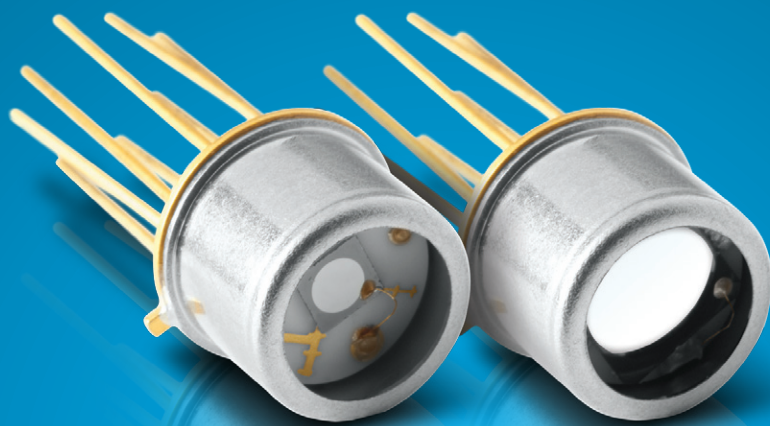


QS-THZ

Hybrid THz Detectors



KEY FEATURES

- 1 Measure Sources from 0.1 to 30 THz**
Broadband, room temperature operation, easier to use and less expensive than a Golay cell
- 2 Wide Dynamic Range from nW to mW**
With state of the art pyroelectric sensors, measure down to 50 nW with 1 nW resolution
- 3 Easy to Integrate Format**
TO5 and TO8 packages make the QS-THZ detectors small and easy to integrate in an existing system
- 4 Several Detector Sizes**
Sensors with apertures of 2 x 2 mm and 5 and 9 mm \varnothing available
- 5 Calibrated Devices**
All THz detectors are calibrated in the 0.25 to 15 μ m (20 THz) region
- 6 Test Box Available**
Can be used with our QS-I-TEST test box which provides mounting and power supply

AVAILABLE MODELS

- QS2-THZ-BL 2 x 2 mm, Discrete Pyroelectric Sensor with Organic Black Coating in TO5 Packaging
- QS5-THZ-MT 5 mm \varnothing , Discrete Pyroelectric Sensor with Chromium Coating in TO5 Packaging
- QS9-THZ-BL 9 mm \varnothing , Discrete Pyroelectric Sensor with Organic Black Coating in TO8 Packaging

ACCESSORIES



QS-I-Test
Evaluation Test Box



Permanent IR Windows
(Various types available)



SDC-5000 Digital
Optical Chopper



Pelican Carrying Case

SEE ALSO

TECHNICAL DRAWINGS

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QS-THZ

SPECIFICATIONS



Approved or in the process of being approved*

MODELS	QS2-THZ-BL	QS5-THZ-MT	QS9-THZ-BL
VOLTAGE RESPONSIVITY	140 kV/W	70 kV/W	30 kV/W
EFFECTIVE APERTURE	2 x 2 mm	5 mm Ø	9 mm Ø
PACKAGE	T05	T05	T08

MEASUREMENT CAPABILITY

Spectral Range			
Frequency	0.1 - 30 THz	0.1 - 30 THz	0.1 - 30 THz
Wavelength	3000 - 10 µm	3000 - 10 µm	3000 - 10 µm
Max Power Density	50 mW/cm ²	50 mW/cm ²	50 mW/cm ²
Noise Equivalent Power	4.0 x 10 ⁻¹⁰ W/(Hz) ^½	1.0 x 10 ⁻⁹ W/(Hz) ^½	3.0 x 10 ⁻⁹ W/(Hz) ^½
Detectivity ^a	5.10 ⁸ cm(Hz) ^½ / W	4.10 ⁸ cm(Hz) ^½ / W	2.7.10 ⁸ cm(Hz) ^½ / W
Voltage Responsivity ^a	140 kV/W	70 kV/W	30 kV/W

PHYSICAL CHARACTERISTICS

Effective Aperture	2 x 2 mm	5 mm Ø	9 mm Ø
Package	T05	T05	T08
Sensor	Pyroelectric	Pyroelectric	Pyroelectric
Absorber	BL	BL	BL
Dimensions	3.6Ø x 7.5D mm	3.6Ø x 7.5D mm	3.6Ø x 7.5D mm
Weight	45 g	45 g	45 g

ORDERING INFORMATION

Full Product Name	QS2-THZ-BL	QS5-THZ-MT	QS9-THZ-BL
Product Number	201691	201692	201690

a: 630 nm, 5 Hz

Specifications are subject to change without notice

QS-I-TEST EVALUATION TEST BOX



Batteries
R_f Resistors
C_f Compensating
Package
Optical Mount
Front Bezel

QS-I-TEST

+9V / -9V
10⁵ - 10¹⁰ Ω
YES
101.6H x 127W x 58.4D
¼-20 Threaded
SM1 (1.035-40)

* For details, contact your Gentec-EO representative