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Data Sheet

August 2, 2026

ADVANTEST

Advantest TQ82017 Optical power sensor for TQ8210, 0.4 to 1.1 nm, -60 to +17 dBm

Advantest TQ82017 Optical power sensor for TQ8210, 0.4 to 1.1 μm , -60 to +17 dBm The TQ82017 (Q82017A / thin-type short-wavelength beam sensor class) provides a silicon photodiode optical sensor head for the Advantest TQ8210 optical power meter family, covering approximately 0.4 to 1.1 μm with a power range of -60 to +17 dBm in a thin 3.2 mm package for cramped fixture measurements. Short-wavelength optical power measurement with TQ8210 / TQ8215 / Q8214A meters; laser printer, CD, and magneto-optical disk R&D; visible/NIR source power checks where a thin sensor profile is required; absolute power readout with meter wavelength-sensitivity compensation. The TQ82017 (Q82017A / thin-type short-wavelength beam sensor class) provides a silicon photodiode optical sensor head for the Advantest TQ8210 optical power meter family, covering approximately 0.4 to 1.1 μm with a power range of -60 to +17 dBm in a thin 3.2 mm package for cramped fixture measurements. Short-wavelength optical power measurement with TQ8210 / TQ8215 / Q8214A meters; laser printer, CD, and magneto-optical disk R&D; visible/NIR source power checks where a thin sensor profile is required; absolute power readout with meter wavelength-sensitivity compensation.



MODEL

**Advantest
TQ82017**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

TQ82017

LISTING

<https://aumictechlabs.com/products/tq82017-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest TQ82017 is a silicon-based optical power sensor engineered for precision optical measurements with the Advantest TQ8210 Optical Power Meter. This sensor delivers wide dynamic range performance across -60 to +17 dBm with 0.01 dB resolution and 10 dB range steps across eight measurement ranges. It has measurement accuracy of ± 0.15 dB at 780 nm and 0 dBm under controlled conditions, with extended temperature stability across 0 to +40°C operating range.

Technical Specifications

- Wavelength Range: 0.4 to 1.1 μ m
- Power Measurement Range: -60 to +17 dBm
- Photoreceptor Element: Silicon (Si)
- Resolution: 0.01 dB
- Range Steps: 10 dB steps, 8 ranges
- Measurement Accuracy: - ± 0.15 dB at 780 nm, 0 dBm (23 $\pm$ 3°C) - $\pm 3.0\%$ at 780 nm, 1 mW (23 $\pm$ 3°C) - ± 0.20 dB at 780 nm, 0 dBm (0 to 40°C) - $\pm 4.0\%$ at 780 nm, 1 mW (0 to 40°C)
- Operating Temperature: 0 to +40°C
- Storage Temperature: -25 to +70°C
- Dimensions: 90(W) $\times$ 94(H) $\times$ 6(D) mm
- Mass: 110 g maximum

Key Features

- Eight measurement ranges with 10 dB steps enable flexible dynamic range optimization
- 0.01 dB resolution supports high-precision optical component characterization
- Silicon photoreceptor optimized for visible and near-infrared wavelengths
- Compact form factor (110 g) simplifies test station integration
- Temperature-rated across industrial operating conditions

Environmental Considerations

In humid conditions above 400 nm, wavelength sensitivity may degrade; avoid high-temperature, high-humidity environments for 400 nm measurements. Other wavelength bands unaffected by temperature and humidity variations.

Compatibility & Integration

Connects directly to Advantest TQ8210, TQ8215, and Q8214A Optical Power Meters via standard interface connector.

Features & description

From manufacturer datasheet

Features

- Optical power sensor for TQ8210 family meters
- Wavelength range 0.4 to 1.1 μm (400 to 1100 nm) – not nm as some catalog typos state
- Power range –60 to +17 dBm class
- Thin-type short-wavelength sensor (approximately 3.2 mm thickness class)
- Sliding protective cap
- Si photodiode direct-in photoreceptor class
- Compatible with TQ8210 wavelength sensitivity compensation

TQ82017 Characteristics / Specifications

PARAMETER	VALUE
Model	TQ82017 (Q82017A / T082017 class)
Manufacturer	Advantest
Instrument Type	Optical Power Sensor Head
Compatible Meters	TQ8210, TQ8215, Q8214A
Wavelength Range	0.4 to 1.1 μm (400 to 1100 nm)
Power Range	-60 to +17 dBm
Photoreceptor	Silicon photodiode (short-wavelength)
Form Factor	Thin-type sensor head
Related Sensors	Q82014A (same band, standard package); TQ82015 / Q82018A (long-wavelength)
Alias	TQ82017, Q82017A Standard Operating Conditions Connect only to compatible Advantest TQ8210-family meters with the correct sensor cable. Set meter wavelength for sensitivity compensation. Protect the photoreceptor with the sliding cap when not measuring.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	TQ82017 (Q82017A / T082017 class)
Manufacturer	Advantest
Instrument Type	Optical Power Sensor Head
Compatible Meters	TQ8210, TQ8215, Q8214A
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Form Factor	Thin-type sensor head
Related Sensors	Q82014A (same band, standard package); TQ82015 / Q82018A (long-wavelength)
Alias	TQ82017, Q82017A

Standard Operating Conditions

Connect only to compatible Advantest TQ8210-family meters with the correct sensor cable. Set meter wavelength for sensitivity compensation. Protect the photoreceptor with the sliding cap when not measuring.

Operational Notes

Catalog text sometimes misprints the band as “0.4 to 1.1 nm”—OEM wavelength is 0.4 to 1.1 μm. Confirm TQ82017 / Q82017A marking on the sensor body. Alias TQ82017.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.