

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

ADVANTEST

Advantest R3768/R3770 – Network analyzer

Advantest Network Analyzers. Frequency Range: R3768: 300 kHz to 8 GHz; R3770: 300 kHz to 20 GHz, Power Range (dBm): -9 to +11 dBm (300 kHz–0.5 GHz); -7 to +13 dBm (0.5–4.0 GHz); -10 to +10 dBm (4.0–6.0 GHz); -12 to +8 dBm (6.0–8.0 GHz); Extended: -74 to +6 dBm (300 kHz–0.5 GHz); -72 to +8 dBm (0.5–4.0 GHz).



MODEL

**Advantest
R3768/R3770**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

R3768/R3770

LISTING

<https://aumictechlabs.com/products/r3768-r3770-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Advantest R3768/R3770 network analyzer series delivers precision S-parameter measurement across extended frequency ranges, serving R&D, manufacturing, and quality control environments. The R3768 operates from 300 kHz to 8 GHz, while the R3770 extends to 20 GHz, both with 1 Hz setup resolution. These instruments characterize 2-, 3-, and 4-port networks with full S-parameter acquisition and flexible measurement formats including rectangular, Smith Chart, polar coordinates, and impedance/admittance conversion. Dynamic range reaches 125 dB typical, with trace noise as low as 0.0025 dB_{rms} at low frequencies and sweep speeds of 5 μ s/point. Temperature stability holds 0.01 dB/°C to 2.6 GHz, degrading to 0.03 dB/°C above 8 GHz. Frequency accuracy is ± 10 ppm at 23 ± 5 °C, with ± 15 ppm stability across 5–40°C operation and ± 3 ppm/year drift. The integrated software fixture function enables real-time virtual matching circuit simulation, standardized impedance transformation, and software balun analysis for

balanced component evaluation. Technical Specifications Frequency Range: R3768: 300 kHz–8 GHz; R3770: 300 kHz–20 GHz Frequency Resolution: 1 Hz S-Parameter Measurement: 2-port (S11, S21, S12, S22); 3-port (9 parameters); 4-port (16 parameters) Measurement Formats: Rectangular (amplitude linear/log, phase, group-delay, VSWR, complex); Smith Chart; $R+jX$, $G+jB$; Polar (linear/log amplitude, phase, complex) Dynamic Range: Up to 125 dB typical Trace Noise: 0.0025 dBrms (300 kHz–10 MHz); 0.005–0.080 dBrms above 10 MHz depending on frequency Output Power Range (8 GHz 2-port): –9 to +11 dBm (300 kHz–0.5 GHz); –7 to +13 dBm (0.5–4.0 GHz); –10 to +10 dBm (4.0–6.0 GHz); –12 to +8 dBm (6.0–8.0 GHz) Extended Power Output: –74 to +6 dBm (300 kHz–0.5 GHz); –72 to +8 dBm (0.5–4.0 GHz) Frequency Accuracy: ± 10 ppm ($23 \pm 5^\circ\text{C}$); ± 15 ppm ($5\text{--}40^\circ\text{C}$); ± 3 ppm/year Temperature Coefficient: 0.01 dB/ $^\circ\text{C}$ (300 kHz–2.6 GHz); 0.02 dB/ $^\circ\text{C}$ (2.6–8.0 GHz); 0.03 dB/ $^\circ\text{C}$ (8.0–20 GHz) Sweep Speed: 5 μs /point minimum Key Features Multi-port measurement capability with impedance/admittance conversion Software fixture function for virtual matching circuit simulation Software balun simulation for balanced parameter analysis Selectable rectangular, Smith Chart, and polar coordinate display modes Typical Applications Component characterization (filters, amplifiers, antennas, transmission lines) Circuit design validation and tuning Manufacturing test and incoming inspection Quality assurance across production batches

R3768R3770 Characteristics / Specifications

PARAMETER	VALUE
Model	R3768
Frequency Range	300 kHz to 8 GHz
Dimensions	approx 424 W x 266 H x 450 D mm
Mass	28 kg or less
Frequency Range 8 GHz Model	300 kHz to 8 GHz
Frequency Range 20 GHz Model	300 kHz to 20 GHz
Frequency Setup Resolution	1 Hz
Sweep Time	5 us per point at RBW 400 kHz
Sweep Points	3 to 1601
Sweep Types	linear log program power
Measurement Channels	16
Traces Per Channel	16
Built In Test Ports	2 3 or 4 port options
System Dynamic Range Typical	125 dB average 8 times RBW 10 Hz after isolation cal
Trace Noise Typical	0.0025 dBrms
Output Power Peak Catalog	plus 13 dBm
Output 8 GHz Two Port 0.5 to 4 GHz	minus 7 dBm to plus 13 dBm
Output 8 GHz Two Port 6 to 8 GHz	minus 12 dBm to plus 8 dBm
Output 20 GHz Two Port 15 to 20 GHz	minus 22 dBm to minus 2 dBm
Test Port Connector 8 GHz	N female
Test Port Connector 20 GHz	3.5 mm male
Destructive Input	plus 21 dBm 16 Vdc
External Reference	1 2 5 10 MHz plus or minus 10 ppm 0 dBm 50 ohm
Probe Power	plus or minus 15 V plus or minus 0.5 V 300 mA
LAN	10 Base-T

PARAMETER	VALUE
Printer	IEEE 1284
Operating Temperature	plus 5 to plus 40 C 80 percent RH or less
Storage Temperature	minus 20 to plus 60 C
Power Consumption	500 VA or less
Line Power	100 to 120 VAC and 220 to 240 VAC auto 50/60 Hz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 20 to plus 60 C
Operating temperature	plus 5 to plus 40 C 80 percent RH or less
Operating Temperature	plus 5 to plus 40 C 80 percent RH or less
Power Consumption	500 VA or less
Line Power	100 to 120 VAC and 220 to 240 VAC auto 50/60 Hz Notes From Advantest R3860A/R3768/R3770 catalog. R3768 is the 8 GHz network analyzer; R3770 is the 20 GHz sibling. Queue listing R3768/R3770 covers both.

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	R3768
Frequency Range	300 kHz to 8 GHz
Dimensions	approx 424 W x 266 H x 450 D mm
Mass	28 kg or less
Frequency Range 8 GHz Model	300 kHz to 8 GHz
Frequency Range 20 GHz Model	300 kHz to 20 GHz
Frequency Setup Resolution	1 Hz
Sweep Time	5 us per point at RBW 400 kHz
Sweep Points	3 to 1601
Sweep Types	linear log program power
Measurement Channels	16
Traces Per Channel	16
Built In Test Ports	2 3 or 4 port options
System Dynamic Range Typical	125 dB average 8 times RBW 10 Hz after isolation cal
Trace Noise Typical	0.0025 dBrms
Output Power Peak Catalog	plus 13 dBm
Output 8 GHz Two Port 0.5 to 4 GHz: minus 7 dBm to plus 13 dBm	
Output 8 GHz Two Port 6 to 8 GHz: minus 12 dBm to plus 8 dBm	
Output 20 GHz Two Port 15 to 20 GHz: minus 22 dBm to minus 2 dBm	
Specifications	
PARAMETER	VALUE
Test Port Connector 8 GHz	N female
Test Port Connector 20 GHz	3.5 mm male
Destructive Input	plus 21 dBm 16 Vdc
External Reference	1 2 5 10 MHz plus or minus 10 ppm 0 dBm 50 ohm
Probe Power	plus or minus 15 V plus or minus 0.5 V 300 mA

PARAMETER	VALUE
LAN	10 Base-T
Printer	IEEE 1284
Operating Temperature	plus 5 to plus 40 C 80 percent RH or less
Storage Temperature	minus 20 to plus 60 C
Power Consumption	500 VA or less
Line Power	100 to 120 VAC and 220 to 240 VAC auto 50/60 Hz

Notes

From Advantest R3860A/R3768/R3770 catalog. R3768 is the 8 GHz network analyzer; R3770 is the 20 GHz sibling. Queue listing R3768/R3770 covers both.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

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