

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ANRITSU

Anritsu ME453K Microwave System Analyzer

Primary use: microwave radio IF/BB distortion analysis AC line voltage class: 100 to 127 Vac or 200 to 250 Vac transformer taps Suffix role: K BB/IF coincidence for remote interoperability Specs from Anritsu ME453/ME538 Series product descriptions and ME453K listings (70 MHz IF class; BB coincidence K). Confirm exact K-suffix BB set, IF level range on the faceplate, installed options, and transmitter/receiver pairing. Finer accuracy limits belong on the OEM operation manual and calibration certificate. AC line voltage class: 100 to 127 Vac or 200 to 250 Vac transformer taps Suffix role: K BB/IF coincidence for remote interoperability Specs from Anritsu ME453/ME538 Series product descriptions and ME453K listings (70 MHz IF class; BB coincidence K). Confirm exact K-suffix BB set, IF level range on the faceplate, installed options, and transmitter/receiver pairing. Finer accuracy limits belong on the OEM operation manual and calibration certificate.



MODEL

Anritsu ME453K

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ME453K

LISTING

<https://aumictechlabs.com/products/me453k-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu ME453K Microwave System Analyzer measures IF and baseband signal characteristics in terrestrial radio relay links and satellite communication systems. It delivers group delay, differential phase and gain, modulator/demodulator linearity, frequency deviation, AM/PM conversion, and return loss measurements across selectable IF bands and baseband

frequencies. The instrument combines dual-trace CRT display with LED readouts, automatic receiver configuration, signal averaging for low C/N operation, and threshold extension for INTELSAT equipment analysis. Built for link adjustment, construction, maintenance, and R&D applications across FDM-FM and digital microwave systems.

Technical Specifications

IF Band: 70 MHz and 140 MHz (selectable)

Baseband Frequencies: Eight selectable frequencies via pushbutton; three low frequencies are model-dependent (K, L, or M designations); Option 05 adds 55.6 kHz or 27.8 kHz

Measurement Parameters: Group delay, modulator/demodulator linearity, differential phase and gain, IF and BB amplitude, IF and BB band return loss, frequency deviation, spectrum, AM/PM conversion coefficient, DC characteristics, IF/BB power, gain, and loss

Display: Dual-trace CRT with alphanumeric parameter display; 4-digit LED display for transmitter settings; 5-digit LED display (ME538 series)

Sweep Capability: Baseband-to-baseband amplitude response with automatic sweep width reduction for modulated sidebands and carrier sweep modulation compensation

Signal Processing: Automatic receiver tuning (deviation, IF level, BB frequency, level); automatic calibration and attenuation; signal averaging for noise reduction; signal subtraction for system component elimination

Advanced Functions: Threshold extension for low C/N group delay measurement; automatic CRT calibration and ranging; scale intensity adjustment for photography

Power Requirements: AC 100–127 V or 200–254 V, 48–66 Hz; approximately 260 VA

IF Output: –10 dBm fixed output at IF frequency for return loss measurement

Key Features

- Dual-trace CRT with automatic scaling and alphanumeric result overlay
- Automatic receiver settings eliminate manual tuning iterations
- Signal averaging reduces noise in satellite link measurements
- Threshold extension optimizes group delay measurement on low C/N systems
- Wide IF band selection (70 and 140 MHz) accommodates diverse link standards

Typical Applications

- Terrestrial radio relay link characterization and adjustment
- Satellite communication system analysis (INTELSAT compatible)
- FDM-FM and digital microwave link commissioning
- Modulator and demodulator performance validation
- Maintenance and fault diagnosis of active RF chains

Compatibility & Integration The ME453K interfaces via IF output for return loss measurements and accepts AC mains power across 100–254 V range, suitable for field deployment and laboratory environments.

Features & description

From manufacturer datasheet

Features

• IF frequency class 70 MHz band • Digital display of measurement parameters and results • Internal self control with partial automatic measurement • CRT and large LED measurement presentation • Signal averaging for noisy traces • BB to BB amplitude measurement capability • K suffix BB coincidence for remote testing match • Companion transmitter/receiver microwave system analyzer set

Applications

• Terrestrial microwave radio relay BB/IF characterization • Satellite communications distortion measurements • FDM-FM link equalization and noise analysis • Digital microwave waveform distortion analysis • Link device adjustment, construction, and maintenance • R&D of microwave radio terminal equipment

ME453K Characteristics / Specifications

PARAMETER	VALUE
Model	ME453K
Manufacturer	Anritsu
Instrument Type	Microwave System Analyzer
Alias	ME453K; Anritsu ME453K
Series	ME453 / ME538
IF frequency band	70 MHz class
IF impedance	50 ohm
Frequency range class	70 MHz IF
Baseband frequency class	series BB coincidence setKBaseband frequency example 1: 83.333 kHz
Baseband frequency example	3.58 MHz
Standard I/O connectors	BNC
Measurement domains	BB and IF transmission characteristics
Linear distortion measures	amplitude and phase / group delay
Nonlinear distortion use case	analog FDM FM noise contributors
Digital radio use case	waveform distortion / intersymbol interference analysis
Display	CRT plus large LED digital readouts
Transmitter settings readout	LED
Receiver settings	automatic with display
Units display	automatic
Signal averaging	yes for noisy traces
BB to BB amplitude measurement	yes
Remote interface series option	GPIB on receiver class
Recorder option series	XYrecorder output Option 02 class
Slow sweep option series	18 Hz Option 03 class
Baseband amp measurement option series	Option 01 class

PARAMETER	VALUE
Form	transmitter and receiver microwave system analyzer set
Primary use	microwave radio IF/BB distortion analysis
AC line voltage class	100 to 127 Vac or 200 to 250 Vac transformer taps
Suffix role	K BB/IF coincidence for remote interoperability
Related ME538 peer	ME538K
RelatedLsuffix	ME453L
RelatedMsuffix	ME453M Notes Specs from Anritsu ME453/ME538 Series product descriptions and ME453K listings (70 MHz IF class; BB coincidence K). Confirm exact K-suffix BB set, IF level range on the faceplate, installed options, and transmitter/receiver pairing. Finer accuracy limits belong on the OEM operation manual and calibration certificate.

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.

characteristics in the BB and IF bands of terrestrial microwave radio relay and satellite communications systems. It analyzes linear and nonlinear distortion on FDM-FM and digital microwave links. TheKsuffix selectsaBB/IF coincidence set for remote testing interoperability with matched instruments. Typical IF operation is in the 70 MHz band at 50 ohm with BNC I/O.

Applications

- Terrestrial microwave radio relay BB/IF characterization
- Satellite communications distortion measurements
- FDM-FM link equalization and noise analysis
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Key Features

- IF frequency class 70 MHz band
- Digital display of measurement parameters and results
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Baseband frequency example 3	500 kHz
Baseband frequency example 4	2.4 MHz
Baseband frequency example 5	3.58 MHz
Baseband frequency example 6	4.43 MHz

PARAMETER	VALUE
Baseband frequency example 7	5.6 MHz
Baseband frequency example 8	8.2 MHz
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Related M suffix	ME453M

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RelatedMsuffix	ME453M

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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.