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Data Sheet

August 13, 2026

ANRITSU

Anritsu ME538M Microwave System Analyzer

The Anritsu ME538M is a microwave system analyzer (transmitter/receiver set) in the ME453/ME538 Series for measuring transmission-line characteristics in baseband and IF bands of terrestrial microwave radio relay and satellite communications systems. It targets FDM-FM, high-capacity digital microwave, and INTELSAT-class links with digital parameter display, self control, and partial automation for group delay, amplitude, and nonlinear distortion analysis. IF bands are 70 MHz and 140 MHz with 0 to 16 dBm level range at 50 ohm. Mass class: approximately 68 lb complete set class listings Primary use: microwave radio IF/BB distortion analysis AC line voltage class: 100 to 127 Vac or 200 to 250 Vac transformer taps Specs from Anritsu ME453/ME538 Series product descriptions and ME538M listing data (IF 70/140 MHz; 0-16 dBm; 50 ohm; BB frequencies listed). Confirm exact M-suffix BB/IF coincidence set, installed options (01-05 class), and transmitter/receiver pairing on the unit. Finer accuracy limits belong on the OEM operation manual and calibration certificate.



MODEL

Anritsu ME538M

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ME538M

LISTING

<https://aumictechlabs.com/products/me538m-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu ME538M Microwave System Analyzer is a link analyzer engineered for installation, commissioning, and maintenance of microwave transmission systems. It measures baseband and intermediate frequency characteristics across terrestrial microwave radio relay and satellite

communication networks, delivering signal quality verification, system alignment, and transmission path loss analysis.

Technical Specifications

Frequency Range: 70 MHz and 140 MHz
IF bands Baseband Frequencies: Nine selectable BB frequencies; three low frequencies determined by model designation (K, L, or M)
Level Range: 0 to 16 dBm
Impedance: 50 ohm
Weight: 68 lbs (31.0 kg)

Key Features

Dual-channel transmitter and receiver configuration with independent measurement paths
Transmitter front panel features LED readout for deviation, sweep width, and center frequency settings
Receiver provides automatic settings and display for deviation, IF level, baseband frequency and level, calibration, and attenuation
CRT and large LED displays for simultaneous multi-parameter visualization
Built-in microprocessor enables auto ranging, peak-to-peak deviation measurement via P-P pushbutton, and parameterized measurement selection
Signal averaging through internal normalizing circuitry to suppress noise in satellite and high-noise environments
Automatic CRT calibration and centering via AUTO pushbutton function
Direct trace subtraction to isolate system response from measuring instrument components
Optional BB-to-BB amplitude measurement for end-to-end link characterization in FDM-FM telephone and television networks
Automatic scale and unit display for all measurements
Optional X-Y recorder interface with front-panel control
GP-IB receiver interface supporting direct measurement plotting

Typical Applications

Terrestrial microwave radio relay systems, INTELSAT satellite communication links, and FDM-FM relay networks requiring transmission quality verification and maintenance diagnostics.

Compatibility & Integration

The ME538M integrates with existing microwave test benches via GP-IB interface and external recorder connectivity. Option 04 configuration available.

Features & description

From manufacturer datasheet

Applications

- Terrestrial microwave radio relay link characterization

ME538M Characteristics / Specifications

PARAMETER	VALUE
Model	ME538M
Manufacturer	Anritsu
Instrument Type	Microwave System Analyzer Transmitter Receiver Set
Alias	ME538M; Anritsu ME538M
Series	ME453 / ME538
IF frequency bands	70 MHz and 140 MHz
IF level range	0 to 16 dBm
IF impedance	50 ohm
Frequency range class	70/140 MHz IF
Baseband frequency	83.333 kHz
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
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
Mass class	approximately 68 lb complete set class listings
Primary use	microwave radio IF/BB distortion analysis
AC line voltage class	100 to 127 Vac or 200 to 250 Vac transformer taps Notes Specs from Anritsu ME453/ME538 Series product descriptions and ME538M listing data (IF 70/140 MHz; 0–16 dBm; 50 ohm; BB frequencies listed). Confirm exact M-suffix BB/IF coincidence set, installed options (01–05 class), and transmitter/receiver pairing on the unit. 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 baseband and IF bands of terrestrial microwave radio relay and satellite communications systems. It targets FDM-FM, high-capacity digital microwave, and INTELSAT-class links with digital parameter display, self control, and partial automation for group delay, amplitude, and nonlinear distortion analysis. IF bands are 70 MHz and 140 MHz with 0 to 16 dBm level range at 50 ohm.

Applications

- Terrestrial microwave radio relay link characterization
- Satellite communications IF/BB distortion measurements
- FDM-FM and digital microwave radio equalization
- Group delay and amplitude response at 70/140 MHz IF
- BB to BB amplitude and distortion measurements
- Production and field alignment of microwave radios

Key Features

- IF bands 70 MHz and 140 MHz
- Level range 0 to 16 dBm at 50 ohm
- 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
- Receiver GPIB and direct plotting functions (series options)
- Companion transmitter/receiver microwave system analyzer set
- Microprocessor auto ranging and peak to peak readings

Technical Specifications

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Specifications

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Series	ME453 / ME538
IF frequency bands	70 MHz and 140 MHz

Specifications

PARAMETER	VALUE
IF level range	0 to 16 dBm
IF impedance	50 ohm
Frequency range class	70/140 MHz IF

Specifications

PARAMETER	VALUE
Baseband frequency 1	83.333 kHz
Baseband frequency 2	250 kHz
Baseband frequency 3	500 kHz

Specifications

PARAMETER	VALUE
Baseband frequency 4	2.4 MHz
Baseband frequency 5	3.58 MHz
Baseband frequency 6	4.43 MHz

Specifications

PARAMETER	VALUE
Baseband frequency 7	5.6 MHz
Baseband frequency 8	8.2 MHz
Baseband frequency 9	12.39 MHz

Specifications

PARAMETER	VALUE
Standard I/O connectors	BNC
Measurement domains	BB and IF transmission characteristics
Linear distortion measures	amplitude and phase / group delay

Specifications

PARAMETER	VALUE
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

Specifications

PARAMETER	VALUE
Transmitter settings readout	LED
Receiver settings	automatic with display
Units display	automatic

Specifications

PARAMETER	VALUE
Signal averaging	yes for noisy traces
BB to BB amplitude measurement	yes
Remote interface series option	GPIB on receiver

Specifications

PARAMETER	VALUE
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

Specifications

PARAMETER	VALUE
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Notes

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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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.