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Data Sheet

August 13, 2026

ANRITSU

Anritsu MF2414B Microwave Frequency Counter, 40 GHz

Anritsu MF2414B Microwave Frequency Counter 40 GHz The Anritsu MF2414B is the 40 GHz member of the MF2400B Series microwave frequency counters. It measures CW and burst carrier frequency, pulse width, and pulse period for mobile radio and microwave oscillator evaluation. A 12 digit LCD, analog meter display, template Go/No Go, gating, and GPIB support automatic and manual frequency adjustment workflows. The Anritsu MF2414B is the 40 GHz member of the MF2400B Series microwave frequency counters. It measures CW and burst carrier frequency, pulse width, and pulse period for mobile radio and microwave oscillator evaluation. A 12 digit LCD, analog meter display, template Go/No Go, gating, and GPIB support automatic and manual frequency adjustment workflows.



MODEL

Anritsu MF2414B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MF2414B

LISTING

<https://aumictechlabs.com/products/mf2414b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu MF2414B is a high-precision microwave frequency counter that measures signals from 10 Hz to 40 GHz, engineered for exacting characterization of mobile radio communication devices and circuits. It captures carrier frequency and pulse width of burst signals with exceptional accuracy, while supporting advanced transient measurements that track frequency

changes at 10 μ s resolution with up to 2000 sample points for graphical analysis. The instrument combines a 12-digit LCD display with analog meter functionality for real-time frequency monitoring and oscillator tuning.

Technical Specifications

Measurement Range & Inputs Frequency: 10 Hz to 40 GHz Input 1: 600 MHz to 40 GHz Input 2: 10 MHz to 1 GHz (50 Ω); 10 Hz to 10 MHz (1 M Ω)

Measurement Modes Frequency, pulse width, frequency range, gate time, burst frequency, and pulse frequency

Burst signal measurement: carrier frequency, burst width, and repetition rate (100 ns to 0.1 s range)

Transient measurement: captures frequency transients at 10 μ s sampling speed; ideal for VCO startup and PLL lock-time characterization

Gating and trigger delay for carrier measurement at arbitrary positions within burst signals

Display & Controls 12-digit LCD primary display Analog meter display for frequency trending and adjustment feedback

Time Base Stability Option 003: Crystal oscillator (5×10^{-10} /day) Option 01: Crystal oscillator (5×10^{-9} /day) Option 02: Crystal oscillator (2×10^{-9} /day)

Key Features Template function with Go/No-Go output via AUX connector enables pass/fail assessment against user-defined upper and lower frequency limits. Storage of up to 10 measurement setups supports rapid reconfiguration. High-speed transient acquisition saves 2000 sampling points for computer-based graphical analysis, critical for evaluating dynamic behavior in frequency-agile systems.

Typical Applications Mobile radio communication device evaluation, oscillator characterization, PLL lock-time measurement, burst signal analysis, and VCO performance validation across microwave and millimeter-wave frequencies.

Compatibility & Integration GPIB interface enables seamless integration into automated test systems. Template function output supports closed-loop pass/fail sorting in production environments.

Features & description

From manufacturer datasheet

Features

- INPUT 1 coverage 600 MHz to 40 GHz, K type connector

Applications

- Mobile radio device and circuit frequency evaluation

MF2414B Characteristics / Specifications

PARAMETER	VALUE
Model	MF2414B
Manufacturer	Anritsu
Instrument Type	Microwave Frequency Counter
Alias	MF2414B; Anritsu MF2414B
Series	MF2400B
Input 1 frequency range	600 MHz to 40 GHz
Input 2 frequency range 50 ohm	10 MHz to 1 GHz
Input 2 frequency range 1 Mohm	10 Hz to 10 MHz
Input 1 connector	K type
Input 2 connector	BNC type
Input 1 impedance	50 ohm AC coupled
Input 1 level below 12.4 GHz	-33 to +10 dBm
Input 1 level below 20 GHz	-28 to +10 dBm
Input 1 level below 27 GHz	-25 to +10 dBm
Input 1 level to 40 GHz	$[-44.6 + 0.741 \times f(\text{GHz})]$ to +10 dBm
Input 2 level 50 ohm	25 mVrms to 2 Vrms
Input 2 level 1 Mohm	25 mVrms to 10 Vrms
Trigger modes	INT, EXT, LINE
Trigger delay	20 ns to 0.1 s or Off
Gate width	100 ns to 0.1 s
Burst pulse width NARROW	100 ns to 0.1 s
Burst pulse width WIDE	1 us to 0.1 s
Pulse repetition frequency	10 Hz to 4 MHz with off time ≥ 240 ns
Pulse width measurement resolution	1 ns
Pulse period measurement resolution	1 ns

PARAMETER	VALUE
Display digits	12 digits plus sign
LCD	248 × 60 dots with backlight
Sample rate	1 ms to 10 s in 1 2 5 steps, or Hold
Save recall setups	10 panel settings maximum
Reference crystal frequency	10 MHz
Reference aging after 24 h warm up	$\leq \pm 2 \times 10^{-8}$ /day class
External reference input	1/2/5/10 MHz, 1 to 5 Vpp External control: GPIB IEEE488.2
Power	85 to 132 / 170 to 250 V auto switch, 47.5 to 63 Hz, ≤ 80 VA
Operating temperature	0 to 50 C
DimensionsWxHxD	213 mm x 88 mm x 350 mm
Mass	less than or equal to 5 kg
Crystal option high stability	MF2414B 03 aging 5×10^{-10} /day
Related lower band models	MF2412B 20 GHz, MF2413B 27 GHz Notes Specs from Anritsu MF2400B Series datasheet for MF2414B (600 MHz–40 GHz). Confirm crystal option (01/02/03), fuse holder/adapters, andKconnector condition on the unit.

General Specifications & Supplementary Characteristics

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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	
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Input 2 frequency range 50 ohm	10 MHz to 1 GHz
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Specifications

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LCD	248 x 60 dots with backlight

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Specifications

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External reference input	1/2/5/10 MHz, 1 to 5 Vpp External control: GPIB IEEE488.2
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Notes

Specs from Anritsu MF2400B Series datasheet for MF2414B (600 MHz–40 GHz). Confirm crystal option (01/02/03), fuse holder/adapters, andKconnector condition on the unit.

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.