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Data Sheet

August 3, 2026

ROHDE & SCHWARZ

Rohde & Schwarz HMF2525 function/arbitrary waveform generator

Rohde & Schwarz HMF2525 Function / Arbitrary Waveform Generator The R&S®HMF2525 provides a one-channel arbitrary function generator covering 10 µHz to 25 MHz. It shares the HMF25xx platform with the HMF2550 (50 MHz), offering DDS standard waveforms, 250 MSa/s 14-bit arbitrary generation to 256 kSa, AM/FM/PM/FSK/PWM modulation, sweep, and burst. Fanless design with 3.5" color display. General lab waveform generation; pulse and edge characterization; arbitrary stimulus via USB/HMExplorer; education and production test to 25 MHz. The R&S®HMF2525 provides a one-channel arbitrary function generator covering 10 µHz to 25 MHz. It shares the HMF25xx platform with the HMF2550 (50 MHz), offering DDS standard waveforms, 250 MSa/s 14-bit arbitrary generation to 256 kSa, AM/FM/PM/FSK/PWM modulation, sweep, and burst. Fanless design with 3.5" color display. General lab waveform generation; pulse and edge characterization; arbitrary stimulus via USB/HMExplorer; education and production test to 25 MHz.



MODEL

Rohde & Schwarz HMF2525

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

HMF2525

LISTING

<https://aumictechlabs.com/products/hmf2525-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz HMF2525 is a 25 MHz single-channel arbitrary function generator engineered for precision signal generation across research, development, industrial, and educational environments. It delivers a broad frequency range from 10 μ Hz to 25 MHz with a 250 MSa/s sample rate and 14-bit vertical resolution, enabling accurate generation of both standard waveforms and custom arbitrary signals up to 256 kSa in length. The instrument features a fanless design for silent operation and includes a 3.5" TFT display (320 $\times$ 240 QVGA) for real-time waveform visualization and parameter control.

Technical Specifications

Output & Signal Generation

Frequency range: 10 μ Hz to 25 MHz Sample rate: Up to 250 MSa/s Vertical resolution: 14 bits Arbitrary waveform length: Up to 256 kPts Output voltage (50 Ω load): 5 mVpp to 10 Vpp Output voltage (open circuit): 10 mVpp to 20 Vpp Output impedance: Steplessly adaptable, 1 Ω to 10 k Ω DC offset: ± 5 mV to ± 5 V (50 Ω); ± 10 mV to ± 10 V (open circuit) Amplitude accuracy: ± 1 % of setting ± 1 mVpp at 1 kHz Timebase stability: ± 1 ppm TCXO (10 MHz reference) Waveform Performance Sine THD: 0.04 % typical to 100 kHz; harmonic distortion < -70 dBc to 100 kHz, < -55 dBc from 100 kHz to 10 MHz, < -40 dBc from 10 MHz to 25 MHz Square rise/fall time: < 8 ns fixed; jitter < 1 nsrms; duty cycle 50 % ± 1 % + 5 ns Pulse frequency: 100 μ Hz to 12.5 MHz; pulse width minimum 15 ns, 5 ns resolution; jitter < 500 psrms Triangle/ramp frequency: 10 μ Hz to 5 MHz (up to 10 MHz); linearity < 0.1 % to 250 kHz Physical & Interface Dimensions: 285 $\times$ 75 $\times$ 365 mm Weight: 3.6 kg Display: 8.9 cm TFT (QVGA) Includes operating manual, software CD, and power cord

Key Features

Single-channel design with fanless architecture Comprehensive waveform library: sine, square, pulse, triangle, ramp, plus predefined curves (white noise, pink noise, cardiac, exponential rise/fall, sine function) Variable output impedance matching for impedance-critical applications Low phase noise: -115 dBc/Hz SSB at 10 kHz offset Precise DC offset capability for biasing and level-shifting applications

Typical Applications

Component and subsystem characterization Audio and sensor signal simulation Educational laboratory demonstrations Low-frequency to RF transducer testing Arbitrary waveform synthesis for research protocols

Compatibility & Integration

Supplied software CD enables waveform design and device control on compatible systems. Stepless impedance adaptation supports direct connection to 50 Ω equipment and high-impedance measurement circuits without external matching networks.

Features & description

From manufacturer datasheet

Features

- Frequency: 10 μ Hz to 25 MHz (sine/square); triangle/ramp to 5 MHz; pulse 100 μ Hz–12.5 MHz; arbitrary 100 μ Hz–12.5 MHz
- Output: 5 mVpp–10 Vpp into 50 Ω (10 mVpp–20 Vpp open); DC offset $\pm$ 5 mV–5 V into 50 Ω
- THD: 0.04% typ. ($f < 100$ kHz); sine harmonic distortion < -70 dBc to 100 kHz
- Arbitrary: 250 MSa/s, 14 bit, up to 256 kSa
- Pulse width min. 15 ns, resolution 5 ns; rise/fall 8–500 ns variable; jitter < 500 ps rms (typ.)
- Square rise/fall 8 ns fixed; jitter < 1 ns rms (typ.)
- Modulation: AM, FM, PM, FSK, PWM (int/ext); sweep linear/log 1 ms–500 s
- Interfaces: USB host; HO720 RS-232/USB; optional HO732 Ethernet/USB, HO740 GPIB
- Ref TCXO ± 1 ppm class; 10 MHz in/out; 285 $\times$ 75 $\times$ 365 mm; 3.6 kg; 105–253 VAC; ~ 30 W

HMF2525 Characteristics / Specifications

PARAMETER	VALUE
Model	R&S®HMF2525
Manufacturer	Rohde & Schwarz
Instrument Type	Function / Arbitrary Waveform Generator
Alias	HMF2525
Conditions	Into 50 Ω ; specs at 23 °C after 30 min warm-up (OEM) Sine
Frequency	10 μ Hz to 25 MHz (sine/square); triangle/ramp to 5 MHz; pulse 100 μ Hz–12.5 MHz; arbitrary 100 μ Hz–12.5 MHz
Flatness	± 0.15 dB to 10 MHz; ± 0.2 dB 10–25 MHz
Harmonics	< –70 dBc (≤ 100 kHz); < –55 dBc (100 kHz–10 MHz); < –40 dBc (10–25 MHz)
THD	0.04% typ. (f < 100 kHz); sine harmonic distortion < –70 dBc to 100 kHz
Phase Noise	–115 dBc/Hz typ. @ 10 kHz offset Square / Pulse / Ramp
Square	10 μ Hz–25 MHz; rise/fall 8 ns; overshoot <3% typ.; duty 50% $\pm 1\%$ +5 ns
Pulse	100 μ Hz–12.5 MHz; width ≥ 15 ns / 5 ns res; duty 0.01–99.99%; rise/fall 8–500 ns
Ramp/Triangle	10 μ Hz–5 MHz; symmetry 0–100% (0.1% res) Arbitrary
Length	up to 256 kSa; Sample Rate: 250 MSa/s; Resolution: 14 bits Amplitude / Offset
Amplitude Accuracy	$\pm 1\%$ of setting ± 1 mVpp at 1 kHz
Offset Accuracy	$\pm 2\%$ of offset $\pm 0.5\%$ of amplitude ± 2 mV ± 1 mV/MHz Timebase
Temperature Stability	1×10^{-6} (+18 to +28 °C); Aging $\pm 1 \times 10^{-6}$ / year (+25 °C) General
Display	8.9 cm (3.5") QVGA TFT 320×240
Dimensions	285 × 75 × 365 mm; Weight: 3.6 kg
Operating Temperature	+5 to +40 °C Standard Operating Conditions All specifications into 50 Ω at 23 °C after 30 minutes warm-up unless noted. Operational Notes HMF2525 is the 25 MHz member; HMF2550 extends to 50 MHz / 25 MHz pulse. Do not interchange frequency limits.

PARAMETER	VALUE
Output	5 mVpp–10 Vpp into 50 Ω (10 mVpp–20 Vpp open); DC offset ± 5 mV–5 V into 50 Ω
Arbitrary	250 MSa/s, 14 bit, up to 256 kSa
Modulation	AM, FM, PM, FSK, PWM (int/ext); sweep linear/log 1 ms–500 s
Interfaces	USB host; HO720 RS-232/USB; optional HO732 Ethernet/USB, HO740 GPIB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	+5 to +40 °C
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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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Manufacturer	Rohde & Schwarz
Instrument Type	Function / Arbitrary Waveform Generator
Alias	HMF2525
Conditions	Into 50 Ω; specs at 23 °C after 30 min warm-up (OEM)
Sine	
Specifications	
PARAMETER	VALUE
Frequency	10 μHz to 25 MHz
Flatness	±0.15 dB to 10 MHz; ±0.2 dB 10-25 MHz
Harmonics	< -70 dBc (≤100 kHz); < -55 dBc (100 kHz-10 MHz); < -40 dBc (10-25 MHz)
THD	0.04% typ. (≤100 kHz)
Phase Noise	-115 dBc/Hz typ. @ 10 kHz offset
Square / Pulse / Ramp	
Specifications	
PARAMETER	VALUE
Square	10 μHz-25 MHz; rise/fall 8 ns; overshoot <3% typ.; duty 50% ±1% +5 ns
Pulse	100 μHz-12.5 MHz; width ≥15 ns / 5 ns res; duty 0.01-99.99%; rise/fall 8-500 ns
Ramp/Triangle	10 μHz-5 MHz; symmetry 0-100% (0.1% res)
Arbitrary	
Length: up to 256 kSa; Sample Rate: 250 MSa/s; Resolution: 14 bits	
Amplitude / Offset	
Amplitude Accuracy: ±1% of setting ±1 mVpp at 1 kHz	
Offset Accuracy: ±2% of offset ±0.5% of amplitude ±2 mV ±1 mV/MHz	
Timebase	
Temperature Stability: 1×10 ⁻⁶ (+18 to +28 °C); Aging ±1×10 ⁻⁶ / year (+25 °C)	

Specifications

PARAMETER	VALUE
Display	8.9 cm (3.5") QVGA TFT 320×240
Dimensions	285 × 75 × 365 mm; Weight: 3.6 kg
Operating Temperature	+5 to +40 °C

Standard Operating Conditions
All specifications into 50 Ω at 23 °C after 30 minutes warm-up unless noted.

Operational Notes
HMF2525 is the 25 MHz member; HMF2550 extends to 50 MHz / 25 MHz pulse. Do not interchange frequency limits.

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.