

ROHDE & SCHWARZ

CMW100

The Rohde & Schwarz CMW100 is a compact, multi-port radio communication tester designed for high-volume production testing of mobile stations and wireless devices. Operating in non-signaling mode, it supports a wide array of cellular and wireless connectivity standards with a frequency range up to 6 GHz and a modulation/analysis bandwidth of 160 MHz.

SPECIFICATIONS

General

Interfaces	LAN (Gigabit Ethernet), PCIe x4, USB, Trigger I/O
Display	None (headless unit designed for remote control/external PC operation)

Physical

Power Supply	100 V to 240 V AC ($\pm 10\%$), 50 Hz to 60 Hz
Operating Temperature	+5 °C to +50 °C °C
Dimensions (W×H×D)	341 mm × 75.5 mm × 182 mm (without handle and feet) mm
Weight	2.6 kg (4-port configuration) / 2.9 kg (8-port configuration) kg

RF Vector Signal Generator (TX)

Frequency Range	70 MHz to 6 GHz
Frequency Resolution	0.1 Hz
Max. Modulation Bandwidth	160 MHz

RF Vector Signal Analyzer (RX)

Max. Analysis Bandwidth	160 MHz
Max. Input Level	+34 dBm (continuous)

Supported Wireless Technologies

Cellular Standards Supported	5G NR (FR1 sub-6 GHz), LTE/LTE-Advanced, WCDMA/HSPA, GSM/EGPRS
Wireless Connectivity Standards	WLAN 802.11a/b/g/n/ac/ax/be
Bluetooth Support	Bluetooth v1.x to v5.x
IoT Standards Supported	NB-IoT, LTE-M (eMTC)
GNSS Simulation	GPS, GLONASS, BeiDou, Galileo
Test Mode	Non-signaling (multi-evaluation)

RF & Reference Interfaces

Number of RF Ports	8 (bi-directional)
RF Port Connector Type	Type N female
Reference Frequency Input	10 MHz
Reference Frequency Output	10 MHz

Control, System & Auxiliary Interfaces

Remote Control Command Set	SCPI-compliant
High-Speed Data Interface	PCIe x4 Gen 2 (for fast IQ data transfer to host)

Power Specifications

Power Consumption	max. 80 W (typ. 55 W)
-------------------	-----------------------

Environmental

Storage Temperature Range	-40 °C to +70 °C
Operating Humidity	95% cyclic (+25 °C/+40 °C) non-condensing, in line with EN 60068-2-30
Maximum Operating Altitude	4600 m
Maximum Storage Altitude	12000 m

RF Performance

RF Port VSWR	< 1.2 (70 MHz to 2.7 GHz), < 1.25 (2.7 GHz to 6 GHz)
--------------	--

Reference Frequency

Frequency Accuracy (Aging)	±1.0 ppm/year (standard), ±0.1 ppm/year (with CMW-B690B OCXO option)
Supported Reference Input Frequencies	10 MHz, 13 MHz, 19.2 MHz, 26 MHz, 38.4 MHz, 52 MHz

RF Generator (TX)

Output Level Range	-120 dBm to -10 dBm
Absolute Level Uncertainty (Generator)	< 0.5 dB (70 MHz to 6000 MHz, level -10 dBm to -90 dBm)

RF Analyzer (RX)

Power Measurement Range	-60 dBm to +34 dBm
Absolute Level Uncertainty (Analyzer)	< 0.5 dB (70 MHz to 6000 MHz, input level > -40 dBm)

Power

DC Input Voltage	24 V DC (± 10%)
------------------	-----------------

General / Performance

Warm-up Time	30 min
--------------	--------

RF Ports

RF Port Isolation	> 50 dB (70 MHz to 3.3 GHz), > 40 dB (3.3 GHz to 6 GHz)
-------------------	---

Compliance

Electromagnetic Compatibility (EMC)	Compliant with EN 55011 (Class A), EN 61326-1
Electrical Safety	Compliant with IEC 61010-1, EN 61010-1

Physical / Cooling

Cooling Method	Force-cooled by internal fans
----------------	-------------------------------

TECHNOLOGY

Wireless Testing

APPLICATIONS

High-volume production testing of mobile phones, IoT modules, and wireless infrastructure

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.