

CRXVT

Vector Network Analyzers



The **Benchtop series** **Vector Network Analyzers**

provide the best performance, fastest measurements, and advanced measurement capabilities. The analyzers provide high-precision parameter measurements of RF devices across a wide frequency range. The Analyzers vary in frequency range, measurement ports number and hardware capabilities.

The Analyzers are available in 100 kHz to 9 GHz and 100 kHz to 20 GHz frequency range with 2 or 4 measurement ports. The Analyzers can be optionally configured with one of the options:

- direct receivers access connectors on front panel
- supporting for frequency extension modules **XT1854 for 9 GHz** models and **XT1854, XVECTOR for 20 GHz** models

Applications: testing, tuning, research, and development of various radio devices used in radio electronics, communications, radars, measuring instruments, manufacturing and laboratories, and as part of automated measuring systems.

Key Features:

- Metrological grade Analyzers in benchtop form factor
- Models hardware capabilities: direct receivers access, frequency extension modules support, second RF-signal source
- Active and passive components and devices measurement
- Basic measurement capabilities: S-parameters and absolute power measurement, balanced measurement
- Calibrating with mechanical kit or Automatic Calibration Module
- Windows/Linux-based Software
- Software remote control via SCPI (over HiSLIP or TCP/IP Socket) and COM/DCOM

Optional measurement capabilities:

- PLS-X - Pulsed measurement
- AUX-X - DC voltage measurement
- NF-X - Noise Figure measurement
- AFR-X - Automatic Fixture Removal
- ACP-X - Compression point measurement
- TD-X - Time domain analysis with gating
- MXR-X - Frequency converting devices measurement



Available models

Model	Fre- quency Range	Impedance / Number of Ports	Measured Parameters	Dynamic Range ¹ (typ.)	Output Power	Measurement Time per Point (typ.)
X2209	100 kHz to 9 GHz	50 Ohm/2	S11, S21, S12, S22	152 dB	-60...+15 dBm	10 μs
X3209		50 Ohm/2 direct receiver access				
X4209		50 Ohm/2 expandable up to 54 GHz ²	S11, S21 ... S44			
X2409		50 Ohm/4				
X3409		50 Ohm/4 direct receiver access				
X4409	100 kHz to 20 GHz	50 Ohm/4 expandable up to 54 GHz ²	S11, S21 ... S44	135 dB	-60...+10 dBm	12 μs
X2220		50 Ohm/2				
X3220		50 Ohm/2 direct receiver access				
X4220		50 Ohm/2 expandable up to 178 GHz ²				
X2420		50 Ohm/4				
X3420		50 Ohm/4 direct receiver access				
X4420	50 Ohm/4 expandable up to 178 GHz ²					

Software and Hardware Capabilities

HARDWARE CAPABILITIES		
Second Auxiliary Source	Yes, Cx4xx models	
Direct Access to Measuring Receivers	Yes, C2xxx models	
Frequency Extenders Support	Yes, C4xxx models	
DC Voltage Measurement	Yes (AUX-X option)	
CALIBRATION OPTIONS		
Support for Automatic Calibration Modules	Yes	
Waveguide calibration	Yes	
Calibration with a Power Meter	Yes	
MEASUREMENT CAPABILITIES		
Fixture Simulation (Embedding and De-embedding)	Yes	
Calculator	Yes	
Time Domain Analysis and Gating (TD-X option)	Yes	
Balanced Device Measurements	Yes, Cx4xx models	
Source to Receivers frequency offset mode (MXR-X option)	Yes	
Scalar Mixer Calibration and measurement (MXR-X option)	Yes	
Vector Mixer Calibration and measurement (MXR-X option)	Yes	
Frequency Offset Adjustment (MXR-X option)	Yes	
FIFO Buffer	Yes	
Automatic Fixture Removal (AFR-X option) ³	Yes	
Noise Figure (NF-X option)	Yes	
SYSTEM REQUIREMENTS		
Operating System	Windows 10 and above, Linux	
Processor	1.5 GHz	
RAM	4 GB	
Communication interface	USB 2.0 High Speed	

¹ With a 10 Hz IF filter bandwidth.

² To extend the range up, use third-party frequency range extension modules.

³ The AFR-X option supports 16-port devices

