

CRXVT

Vector Network Analyzers



The Compact Series of Vector Network Analyzers

(X1244 and X1444) are designed for testing, tuning, and developing devices in both manufacturing and laboratory settings as part of automated measurement setups. The X1244 and X1444 are 2- and 4-port Vector Network Analyzers operating in the 10 MHz to 44 GHz frequency range. These are the highest-frequency vector network analyzers of the Compact series. They deliver an excellent dynamic range and high measurement speed in a compact enclosure, offering a comprehensive range of software functions to tackle most real-world production measurement challenges.

The X1244 and X1444 Vector Network Analyzers support pulse mode measurements (PLS-X software option).

The device includes an embedded pulse modulator capable of generating pulse signals with a minimum duration of 20 ns, along with a synchronizer and logic generators that support various pulse measurement modes: «Point-in-Pulse», «Pulse profile» and «Asynchronous pulse» mode. The minimum time resolution in Pulse Profile mode is 100 ns.

The analyzers are controlled by an external PC running dedicated software, which processes information and provides GUI. A USB 2.0 interface is used to communicate with the PC.

For convenient, high-quality calibration of the network analyzer, it is recommended to use automatic calibration modules, including XC5244 for measuring RF paths with 2.92 mm and 2.4 mm connectors.*

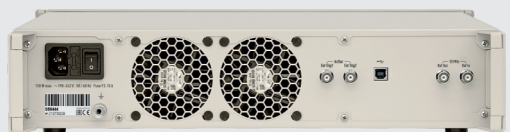
Key Features:

- Wide frequency and dynamic ranges in compact form factor
- Active and passive components and devices measurement
- Basic measurement capabilities: S-parameters and absolute power measurement, time domain analysis with gating, frequency converting devices 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:

- ACP-X - Compression point measurement
- AFR-X - Automatic Fixture Removal
- PLS-X - Pulsed measurement

* A PC is not included.



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Available models

Model	Frequency Range	Impedance / Number of Ports	Measured Parameters	Dynamic Range ¹ (typ.)	Output Power	Measurement Time per Point (typ.)
X1244	10 MHz to 44 GHz	50 Ohm/2	S11, S21, S12, S22	135 dB	-50...0 dBm	22 µs
X1444		50 Ohm/4	S11, S21 ... S44			

Software and Hardware Capabilities

HARDWARE CAPABILITIES	
Built-in Pulse Generators and Modulators (PLS-X option)	Yes
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	Yes
Balanced Device Measurements	Yes, model X1444
Source to Receivers frequency offset mode	Yes
Scalar Mixer Calibration and measurement	Yes
Vector Mixer Calibration and measurement	Yes
Frequency Offset Adjustment	Yes
Pulse Measurements (PLS-X option)	Yes
FIFO Buffer	Yes, model X1244
Automatic Fixture Removal (AFR-X option) ²	Yes
Compression point measurement (ACP-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 The AFR-X option supports 16-port devices

