

AEM

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DATASHEET

6GHz Vector Analyzer Adapter (K6GVNA)

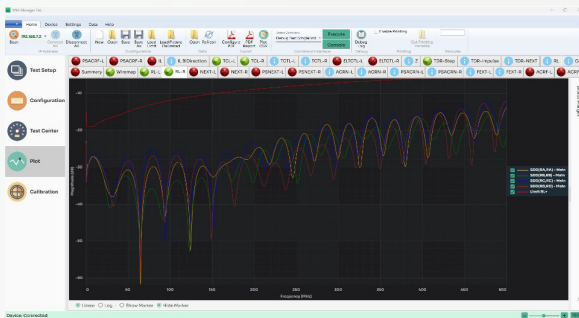
Optimized for Manufacturing Testing
A Multiport Vector Network Analyzer
Capable of Simultaneously Measuring
All Parameters on All Ports

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ALLIANCE

Multi-Port Component Testing



The small, portable form-factor makes TestPro-K6GVNA easy to integrate in the manufacturing environment. Measuring all possible combinations of RF S-parameters on all ports, K6GVNA greatly reduces test time over other RF test systems. Additionally, multiple test ports eliminate the need of connecting and disconnecting different test fixtures repeatedly. No external RF switch matrix is required, further simplifying the test setup.

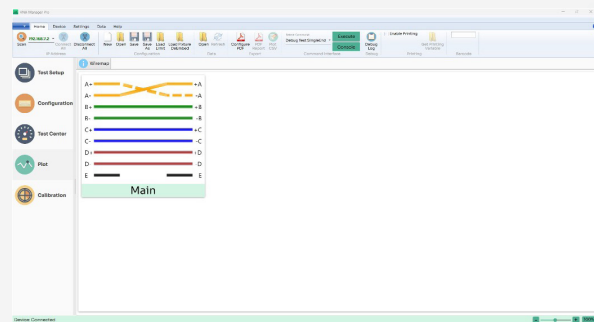
VNA Manager is a required companion software utility that facilitates control of the analyzer including customization of the Autotest through S-parameter based settings.

The system is IP addressable enabling remote view of test data across geographical locations.

While K6GVNA measures multiple S-parameters in every sweep, yet it enables focusing on critical parameters by allowing flexible configuration, and easy-to-understand PASS/FAIL results.

These features make K6GVNA one of the most versatile RF analyzer for the engineers interested in deep-dive, and at the same time fast and easy for the operators.

A large number of test applications can be supported by user configurable parameters and test limits. These are several built-in configurations for widely used test applications such as automotive single-pair Ethernet test.



KEY CAPABILITIES

- Measurements of multi-port devices under test (up to 4-ports)
- All S-parameter combinations automatically measured during every autotest, with ability to choose parameters of interest
- Adheres to Open Alliance, BroadR-Reach, 802.3bw, 802.3bp and 802.3ch (draft) for the s-parameter and TDR tests:



SPECIFICATIONS

Parameter	Specification
Frequency Range	1-6,000 MHz
Frequency Resolution	1 MHz
Frequency Accuracy	± 2ppm
Test Ports (Single-Ended)	4
IF Bandwidth	100 Hz (Range Setting = 7)
Test Interface	SMA (Female)
Independence of Test Port	50Ω
Test Port Power Output	-1.0 dBm
Max DC voltage at Test Port (Damage Level)	60V
Sweep Speed	0.3 msec/step (80 db Noise Floor)
	3.4 msec/step (110 db Noise Floor)
Measurement Floor - Cross-Talk	105 db @ 1 MHz
	85 db @ 1000 MHz
	50 db @ 3000 MHz
	40 db @ 6000 MHz
Measurement Floor - Return Loss #	60 db @ 1 MHz
	40 db @ 1000 MHz
	15 db @ 3000 MHz
	15 db @ 6000 MHz
Dynamic Range Transmission Measurement	90 db @ 0.1 MHz
	100 db @ 1 MHz
	100 db @ 100 MHz
	85 dB @ 1000 MHz
	50 dB @ 3000 MHz
	50 dB @ 6000 MHz
Accuracy - Transmission Measurements (Regular Sweep Mode) Mid Dynamic Range Measurements	± 0.1 db @ 1 MHz
	± 0.1 dB @ 100 MHz
	± 0.1 dB @ 600 MHz

SPECIFICATIONS

Parameter	Specification
Accuracy - Transmission Measurements (Regular Sweep Mode) Mid Dynamic Range Measurements	± 0.3 dB @ 1000 MHz
	± 0.5 dB @ 6000 MHz
Accuracy - Reflection Measurements Mid Dynamic Range Measurements	± 0.4 dB
Directivity	40 dB @ 0.1 MHz
	60 dB @ 1 MHz
	60 dB @ 100 MHz
	45 dB @ 600 MHz
	30 dB @ 1000 MHz
	25 dB @ 6000 MHz
Tracking Error	0.05 dB (0.1 to 1000 MHz)
Source Return Loss	50 dB @ 1 MHz
	40 dB @ 100 MHz
	20 dB @ 1000 MHz
Insertion Loss Measurement Range-Dual Ended	80 dB @ 0.1 MHz
	80 dB @ 1 MHz
	70 dB @ 100 MHz
	65 dB @ 1000 MHz
	40 dB @ 6000 MHz
File Format for S-Parameter Results	CSV and Touchstone (s8p, s16p)
Plots	Frequency Domain S-Parameter (Magnitude)
	Time-Domain Impulse Response (Linear or dB)
	Time-Domain Step Response (Impedance or dB)
	Phase v/s Frequency, Real Part v/s Frequency, Imaginary Part v/s Frequency
	Power Sum Measurements of Selected Combinations of S-Parameters
Size	47.5 cm (Length) x 22 cm (Width) x 38 cm (Height), and 4.1 kg (Weight)
File Format for S-Parameter Results	CSV and Touchstone (s8p, s16p)
Weight	1.0 kg

SPECIFICATIONS

Parameter	Specification
Power Supply	5 V DC Adapter
Power Consumption	8 W
Battery Operation	8 Hours with Full Charge and 1 test/min
Connectivity	USB, 10/100/1000 Ethernet
Operating System	Linux
Operating Temperature	0 °C to 45 °C
Storage Temperature	-50 °C to +70 °C
Humidity	90 % at 25 °C
Atmospheric Pressure	70.0 kPa to 106.7 kPa

ORDERABLE PART NUMBERS

K6GVNA-KIT : Kit for 6 GHz VNA Testing	AD-6G-4P-MMVNA: Test Adapter for 4-port 6GHz VNA
6GHz VNA testing kit comprises of a measurement platform unit, AD-6G-4P-MMVNA adapter, charger, carry case, 4 coax test cords, VNA Manager Pro software site license.	4-port 6 GHz VNA test adapter that attaches to measurement platform unit.

Contact Us

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