

GA362X Series Vector Network Analyzer



Summary

GA3623 Vector Network Analyzer is combined by a high-precision synthesized signal source with latest technology, narrow-band receiver, high-speed embedded computers and the Windows operating system. Its feature has high measurement accuracy, fast measurement speed and strong measurement adaptability. Windows user interface is more user-friendly and suitable for mass production of RF components and equipment and measurement applications in manufacturing with a very high performance-low cost factor. It's mainly used in the field of wireless communication, television broadcast, education, scientific research and other RF applications. It can make a full range of measurement for S-parameter, Amplitude Frequency characteristics, Reflective characteristics, Phase characteristics and Delay characteristics of passive and active device.

Main features

- 2/4 Port Test: Can test multi port, greatly improve the test efficiency
- Windows 7 Operating System interface
- 10.4 inches TFT color LCD screen, with touch screen, show clear, simple and quick operation
- More than 100 independent measurement channels: can test in more than 100 different incentive measure conditions
- Various scanning mode: linear sweep, logarithm scanning, subsection scanning, power scanning
- Powerful analyze PASS/FAIL function: Limit test, surge limit test, bandwidth limit test function
- Time-domain analysis function: Can show the response in time domain
- Unique calibration method: 4 ports SOLT calibration
- Instrument Use interface: Chinese or English
- External Interface: USB, LAN, RS232, VGA, GPIB port(option)

GA3628 Calibration kit

Option: 2E4J	N-50J Calibration Kit(Open, Short, Load, Adapter)
Option: 2E4K	N-50K Calibration Kit(Open, Short, Load, Adapter)
Option: 2E7J	SMA-50J Calibration Kit(Open, Short, Load, Adapter)
Option: 2E7K	SMA-50K Calibration Kit(Open, Short, Load, Adapter)

GA3623 Calibration kit

Option: 1E4J	N-50J Calibration Kit(Open, Short, Load, Adapter)
Option: 1E4K	N-50K Calibration Kit(Open, Short, Load, Adapter)
Option: 1E5J	N-75J Calibration Kit(Open, Short, Load, Adapter)
Option: 1E5K	N-75K Calibration Kit(Open, Short, Load, Adapter)
Option: 1E6J	F-75J Calibration Kit(Open, Short, Load, Adapter)
Option: 1E6K	F-75K Calibration Kit(Open, Short, Load, Adapter)
Option: 1E7J	SMA-50J Calibration Kit(Open, Short, Load, Adapter)
Option: 1E7K	SMA-50K Calibration Kit(Open, Short, Load, Adapter)

SMA-50J Calibration Kit



N-50J Calibration Kit



VECTOR NETWORK ANALYZER

Technical Parameters

Model		GA3628				GA3623	
Test Port Output(Source)							
Frequency Range		100kHz~8.5GHz				300kHz~3GHz	
Frequency Resolution		1Hz				1Hz	
Frequency Accuracy		±5ppm (23℃±5℃)				±5ppm (23℃±5℃)	
Level Accuracy		±0.65dB (50MHz, 0dBm)				±0.8dB (50MHz, 0dBm)	
		±1.0dB (relative 50MHz, 0dBm)				±1.0dB (relative 50MHz, 0dBm)	
Level Linear(0dBm)		±0.75dB (range in-20dBm~max output level)				±0.75dB (-5dBm~+10dBm)	
Output Level Range		100kHz~5GHz	5~6GHz	6~7GHz	7~8.5GHz	-45dBm~+10dBm	
		-55~+10dBm	-55~+9dBm	-55~+8dBm	-55~+7dBm		
Level Resolution		0.05dB				0.05dB	
Harmonics (2 or 3 times)		<-25dBc (Freq ≤2GHz; range in+5dBm , typical value)				-25dBc(+5dBm, typical value)	
		<-20dBc (Freq≤8.5GHz; range in +5dBm , typical value)					
Non Harmonics Spurious		<-30dBc(Freq≤8.5GHz; +5dBm, typical value)				-30dBc(+5dBm, typical value)	
Test Port Input							
Max Input Level		100k~5GHz	5~6GHz	6~7GHz	7~8.5GHz	+10dBm	
		+10dBm	+9dBm	+8dBm	+7dBm		
Input Damage Level		+26dBm; ±35VDC				+20dBm; ±30VDC	
Crosstalk		1~10MHz	10M~3GHz	3~6GHz	6~8.5GHz	1MHz~3GHz	
		-110dB	-120dB	-110dB	-95dB	-110dB	
Test Port Input (Noise curve)							
Test Condition	Max input level	+10dBm	+10dBm		+7dBm		
	Frequency Range	100k~10MHz	10M~4.38GHz		4.38~8.5GHz		
	IF Bandwidth	3KHz	70KHz		70KHz		
Noise Curve (Amplitude)		0.003dBrms	0.004dBrms		0.006dBrms		
Noise Curve (Phase)		0.020°rms	0.035°rms		0.050°rms		
System performance after calibration							
System Dynamic Range ¹							
Test Condition	Frequency Range	100k~10MHz	10M~6GHz		6~8.5GHz	1M~1.5GHz	1.5~3GHz
	IF Bandwidth	10Hz/3kHz	10Hz/3kHz		10Hz/3kHz	10Hz/3kHz	10Hz/3kHz
System Dynamic Range		102/82dB	115/98dB		97/92dB	110/90dB	110/90dB

Mark 1: Test port system dynamic range means the difference between test port rms of background noise and max output power of source. Effective dynamic range must consider the uncertainty and disturbance signal of measurement.

Orientation Index						
Frequency	100kHz~10MHz	10MHz~3GHz	3~6GHz	6~8.5GHz	1MHz~1.5GHz	1.5MHz~3GHz
Directivity	46	43	37	35	48	44
Source Matching	41	40	36	35	41	35
Load Matching	45	43	37	34	48	44
Transmission Track	±0.041	±0.039	±0.068	±0.136	±0.011	±0.021
Reflection Track	±0.040	±0.040	±0.060	±0.070	±0.015	±0.029

Note: IF Bandwidth=10Hz; Environment Temperature is 23℃±5℃, deviation is Less 1℃ than calibration temp. 2 ports calibration. Need isolation calibration. N type calibration kit.