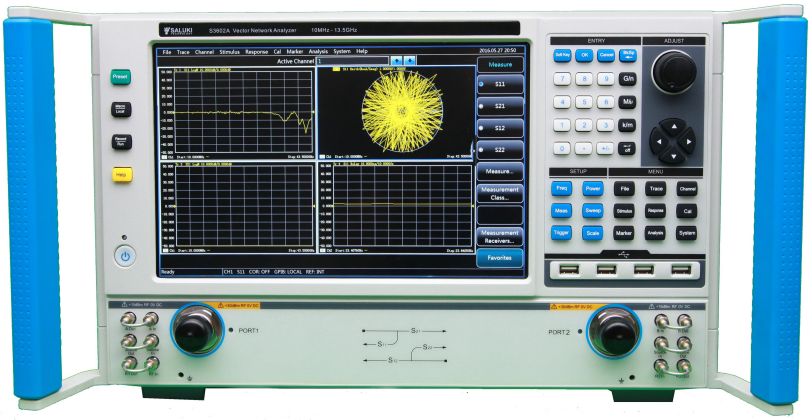
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)



Key Features

- Frequency coverage from 10MHz to 13.5GHz / 26.5GHz
- Flexible Calibration Types, Compatible with many Calibration Parts
- Support Multi-window, multi-channel measurement, instantly execute intricate measurement plan
- Include multiple display formats including logarithmic amplitude, linear range, standing wave, phase, group delay, smith circle map, polar coordinates
- Support USB, GPIB, LAN, VGA
- 12.1 inch high resolution touch screen
- Record / Run, one button operation to simplify measurement setup procedures and improve the working efficiency
- Provide functions including pulse S parameter measurement, time domain measurement, mixer measurement, 2 dimensional measurement of gain compression, millimeter wave spread spectrum, antenna and RCS measurement reception.

Typical Applications

- Mixer Test
- Filter Test
- Integrated Pulse S Parameter Test

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ООО «4ТЕСТ»
Телефон: +7 (499) 685-4444
info@4test.ru
www.4test.ru

SALUKI TECHNOLOGY

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

S3602 Series VNA Products, designed with new hardware architecture, improves impressively many key specifications such as scanning speed, system dynamic range etc. In terms of software, S3602 is equipped with a high-performance embedded computer which runs Windows operation system. It helps S3602 to have a friendly UI and easy to operate.

S3602 Vector Network Analyzer provides many calibration methods including frequency response, single interface, responsive isolation, enhanced response, dual interface and electrical calibration. S3602 has many display formats including logarithmic amplitude, linear range, standing wave, phase, group delay, Smith chart, polar coordinates. S3602 equipped with many standard interfaces including USB, LAN, GPIB, VGA.

Apart from all features of conventional vector analyzer, S3602 is capable of 2D scanning of mixer / inverter and gain compression, and of multi-functional comprehensive parameter test of S Parameter under pulse circumstance, which can precisely measure amplitude-frequency characteristics, phase-frequency characteristics and group-delay characteristics of microwave network.

This product can be universally implemented in fields including transmission/reception module measurement, dielectric material property measurement, microwave pulse characteristic measurement and photoelectric property measurement; this analyzer is a necessary tester in the scientific research, production process of systems like radar, communication and navigation.

S3602A / B Vector Network Analyzer

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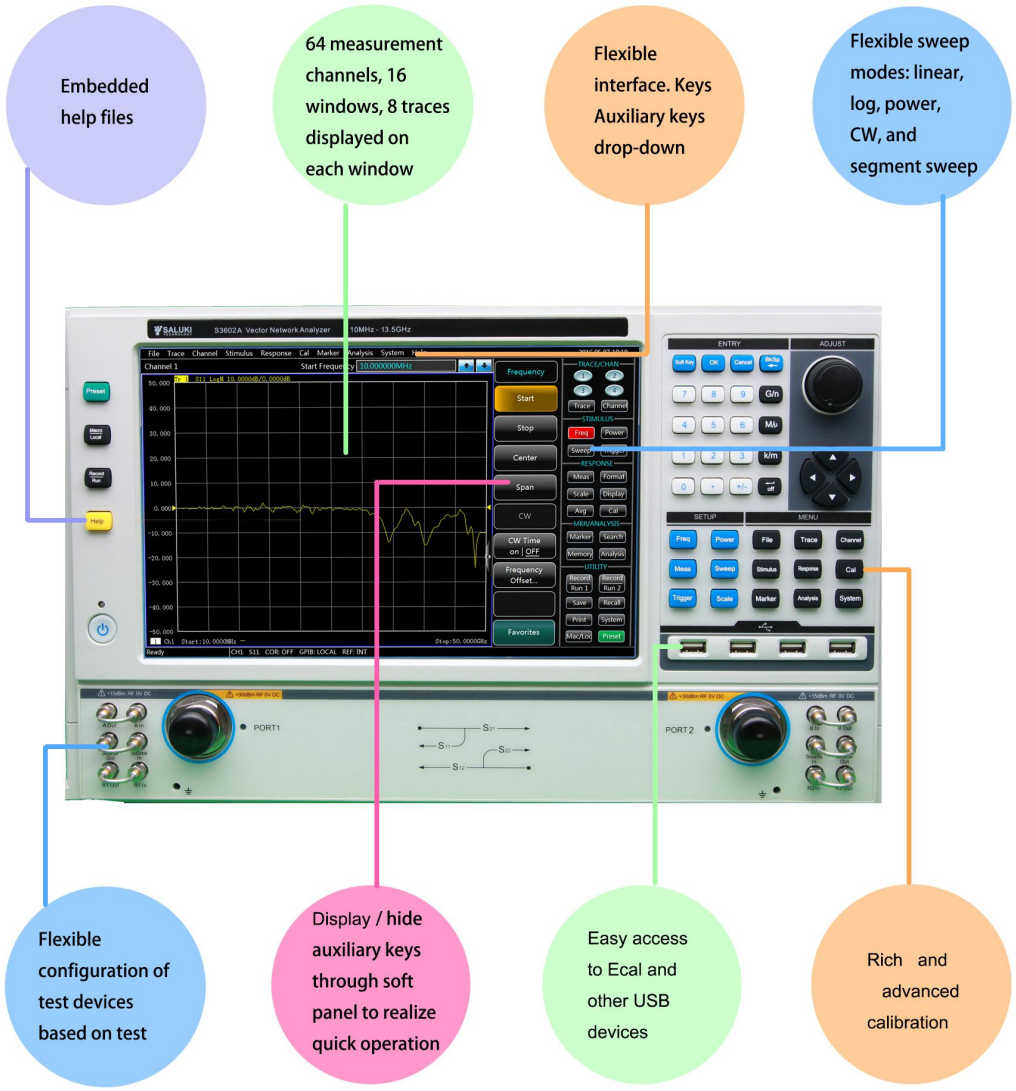
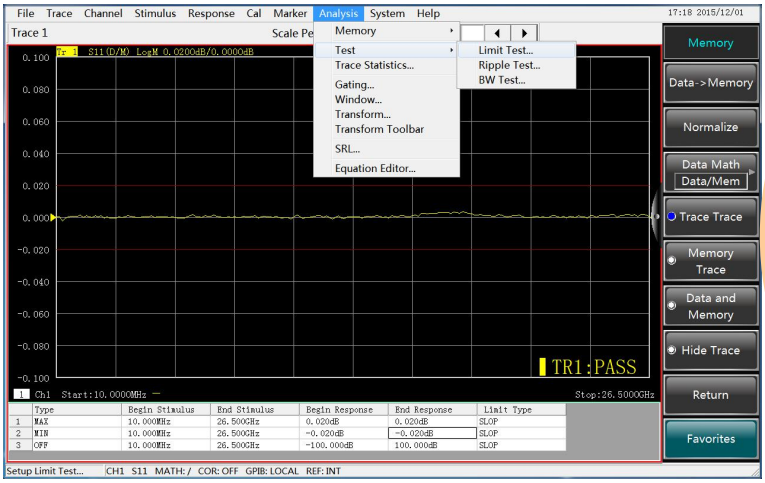
Features To Boost Your Efficiency

Humanized user interface for easy operation, which can improve the efficiency

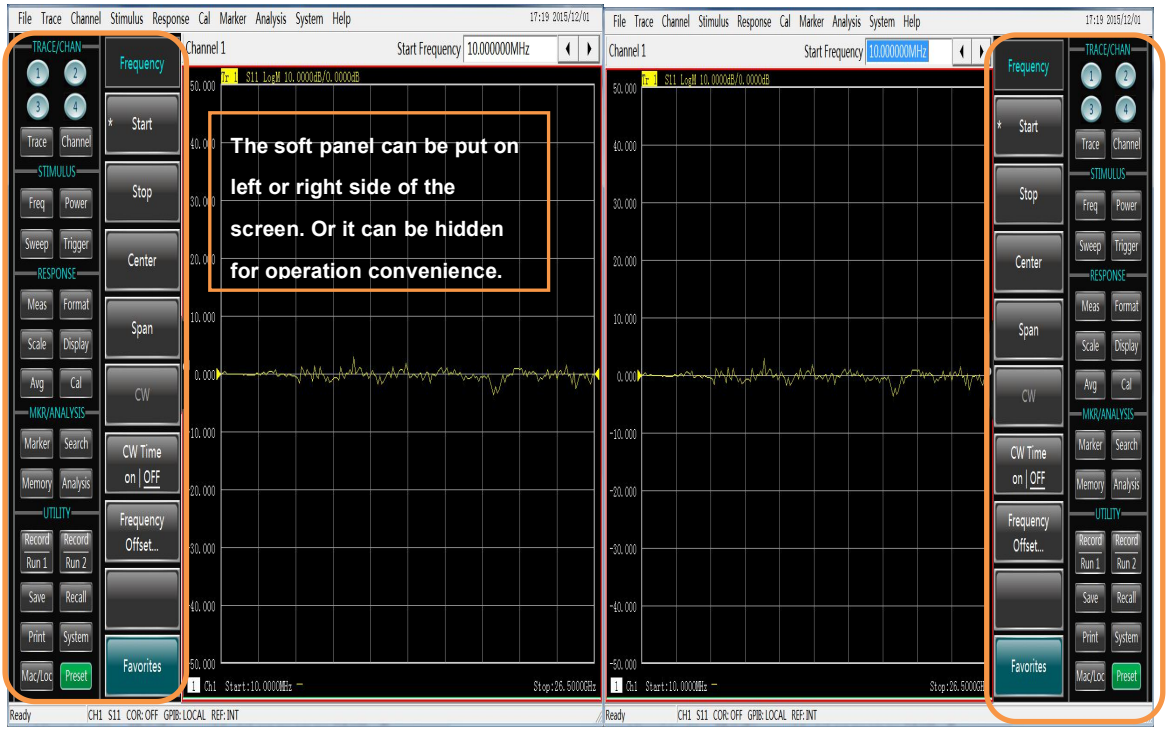


S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)



Parameters can be quickly input through activated input toolbar. It can improve the test efficiency to setup the limit line and segment sweep value for production line.



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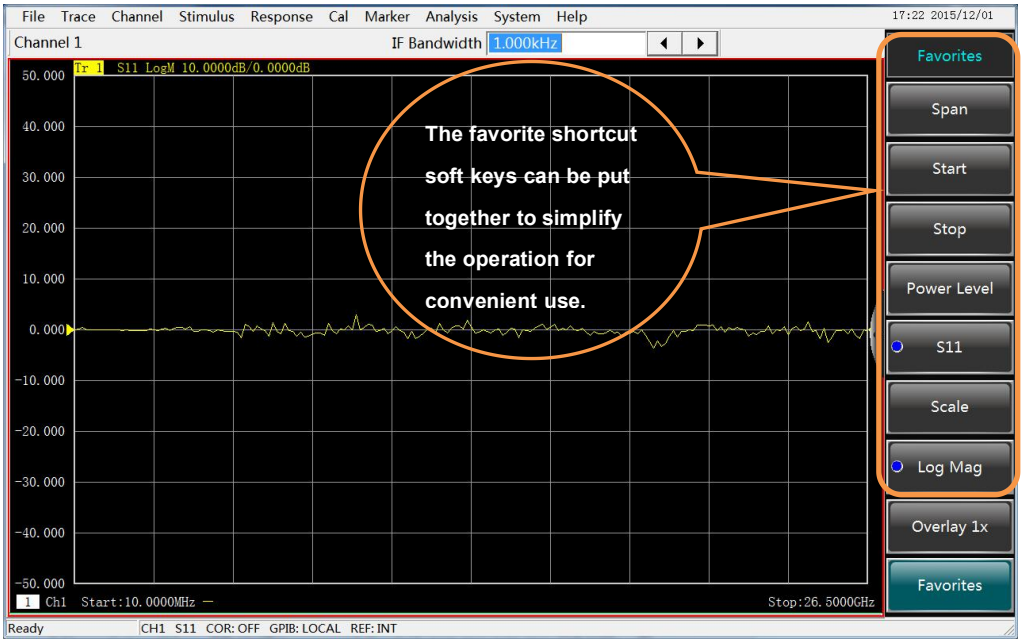
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)



Flexible and optional calibration types, compatible with multiple calibration kits

S3602 series vector network analyzer provides multiple calibration types, including guided calibration (smart calibration), unguided calibration (using mechanical calibration kit to conduct through response calibration, through response & isolation calibration, single port calibration, enhanced response calibration, full two-port SOLT calibration, TRL calibration) and electronic calibration (ECal) etc. Users can select coaxial mechanical calibration kits or electronic calibration kit based on test requirements.

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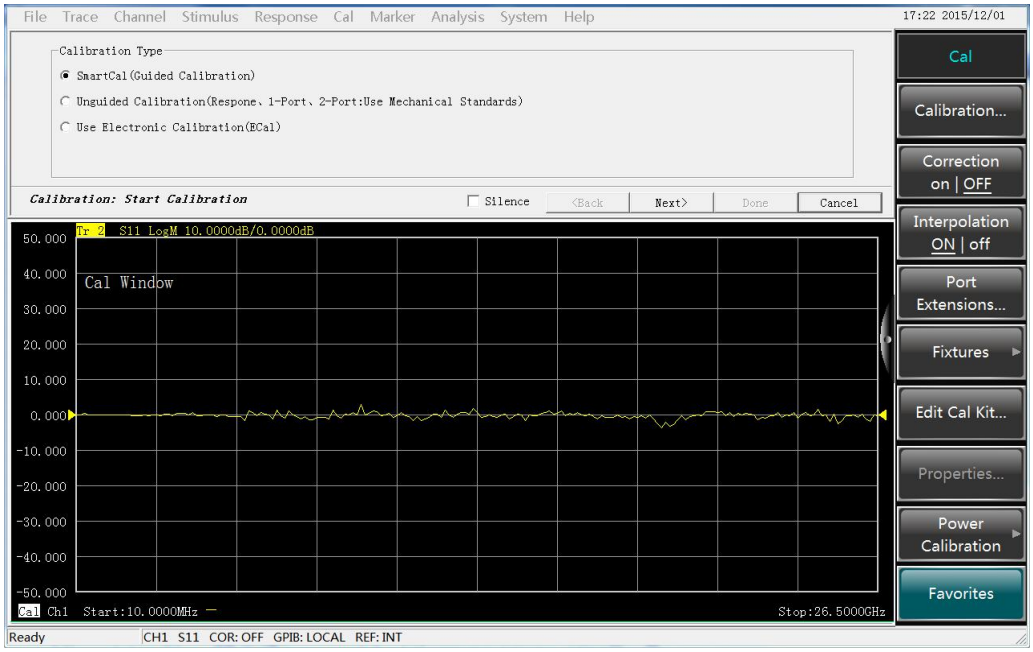
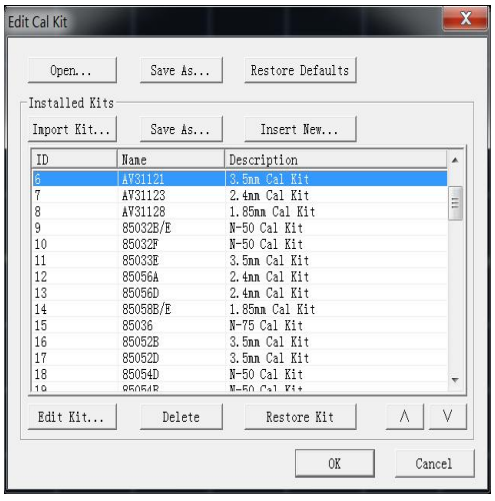
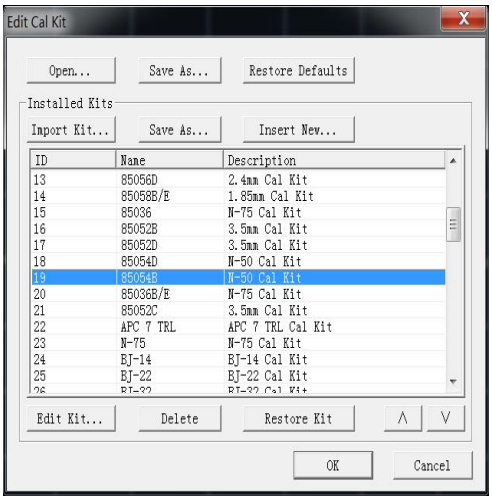
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)







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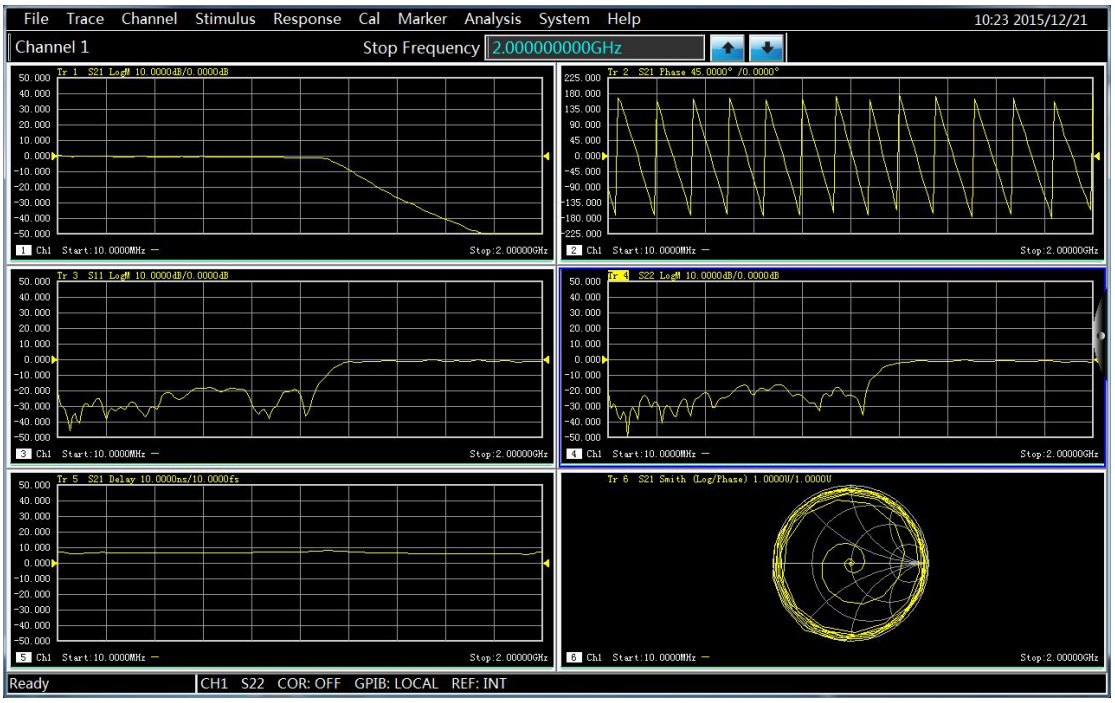
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

Multiple windows to display all measuring channels

The analyzer has function of multi-channel and multi-window display. It supports up to 64 channels. Maximum 16 measuring windows can be simultaneously displayed, and each window can simultaneously display up to 8 testing traces, which makes the observation results more visible and the operation more convenient.



12.1-inch high resolution touch screen

The 12.1-inch touch screen with 1280*800 resolution has bright and comfortable color, which can make the operation very convenient.

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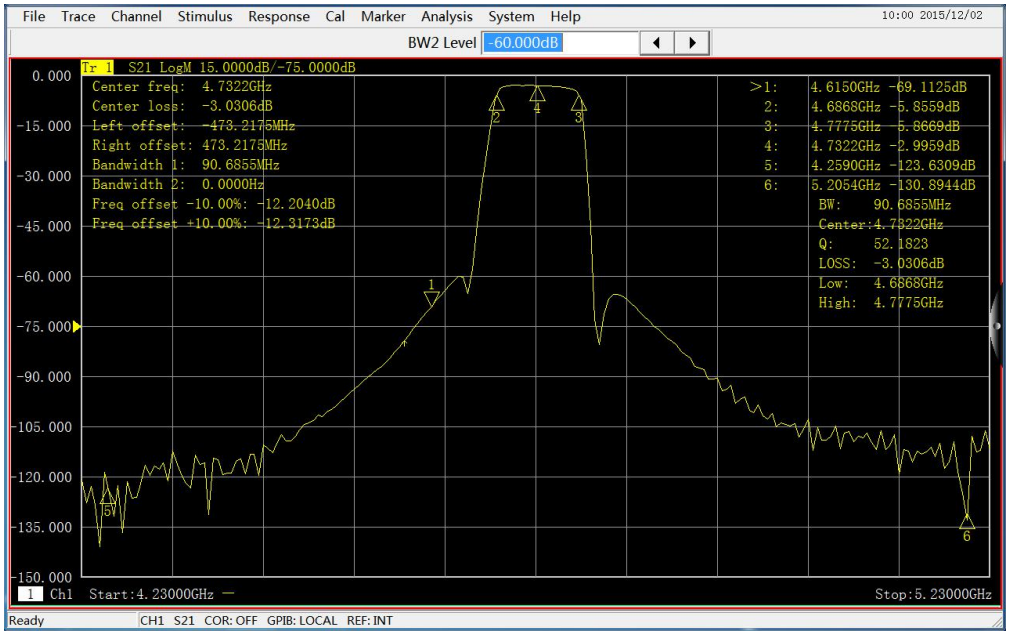
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

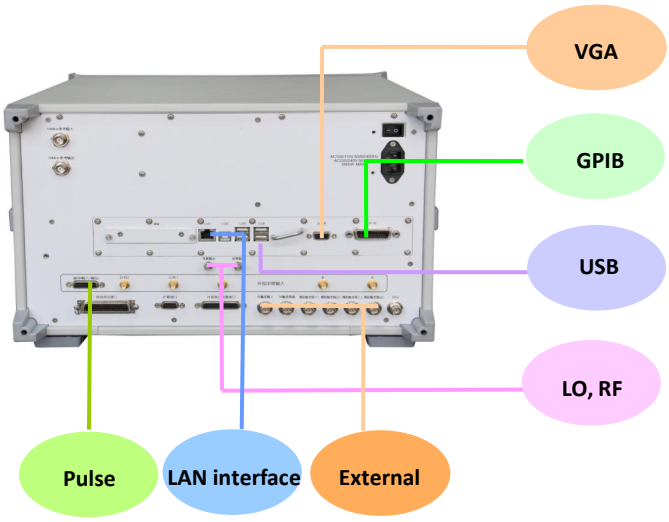
Large dynamic range

S3602 series vector network analyzer is designed with the concept of mixer receiving, which effectively extends the dynamic range of the complete machine and meets the test demand for large dynamic range.



Rich peripheral interfaces, flexible and practical

With new embedded computer module and Windows operation system, S3602 series vector network analyzer realizes the perfect combination of the instrument and PC. Rich I/O interfaces (including GPIB, USB, and LAN etc.) are provided for different data transmission requirements.



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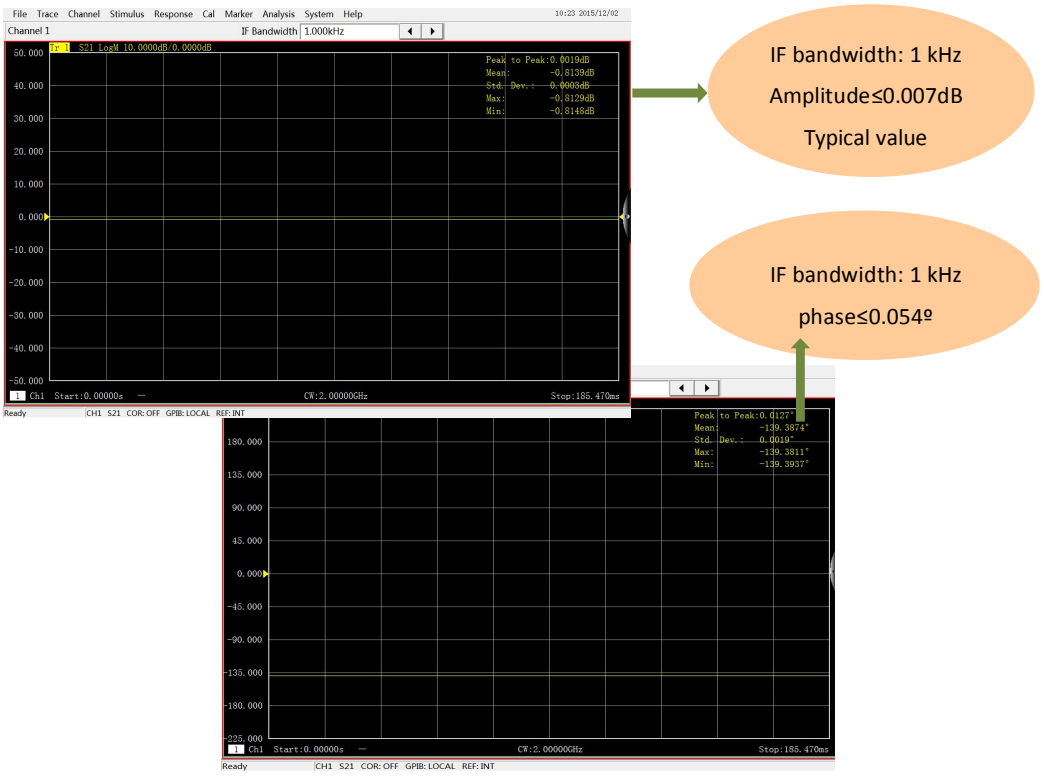
S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

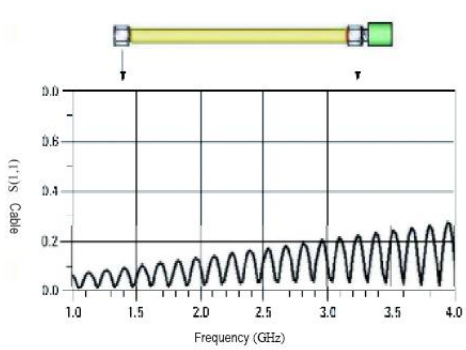
Low trace noise, high test accuracy

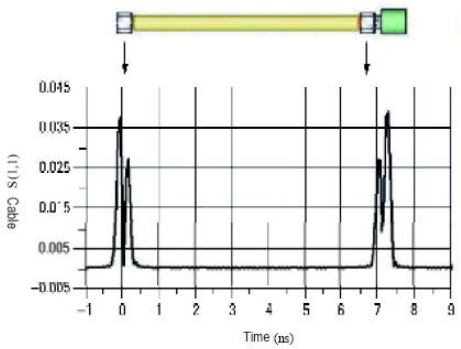
The excellent performance of S3602 series vector network analyzer in trace noise highly improves its test accuracy so as to meet user's demand for accurate measurement, and it is especially helpful for the accurate measurement of devices with low insertion loss.



Time-domain analysis can comprehensively characterize the design

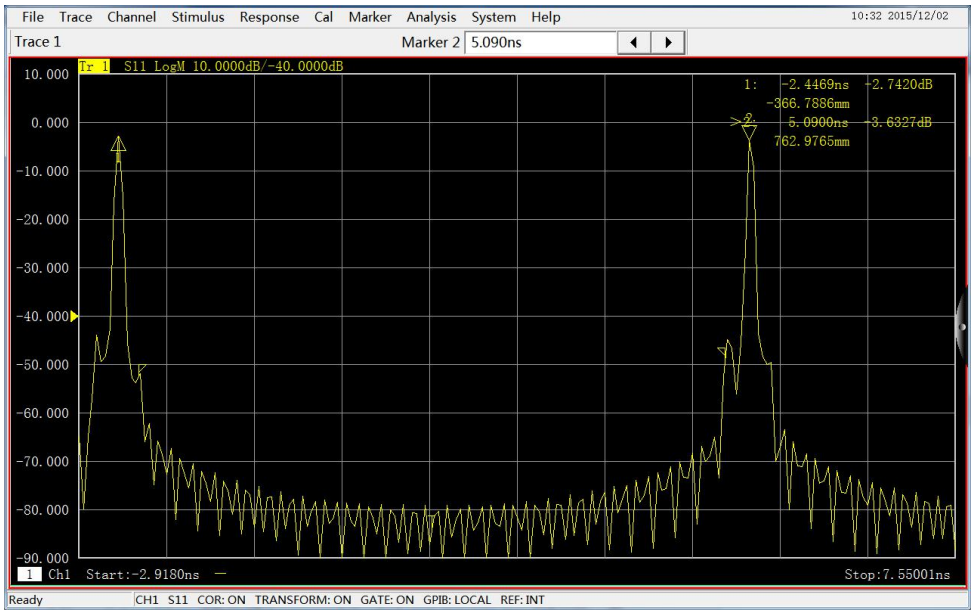
With time-domain options, S3602 series vector network analyzer can realize the switching of measurement results between frequency-domain and time-domain, which can be used to identify the discontinuous points of devices, fixtures or cables to realize accurate fault location.





S3602A / B Vector Network Analyzer

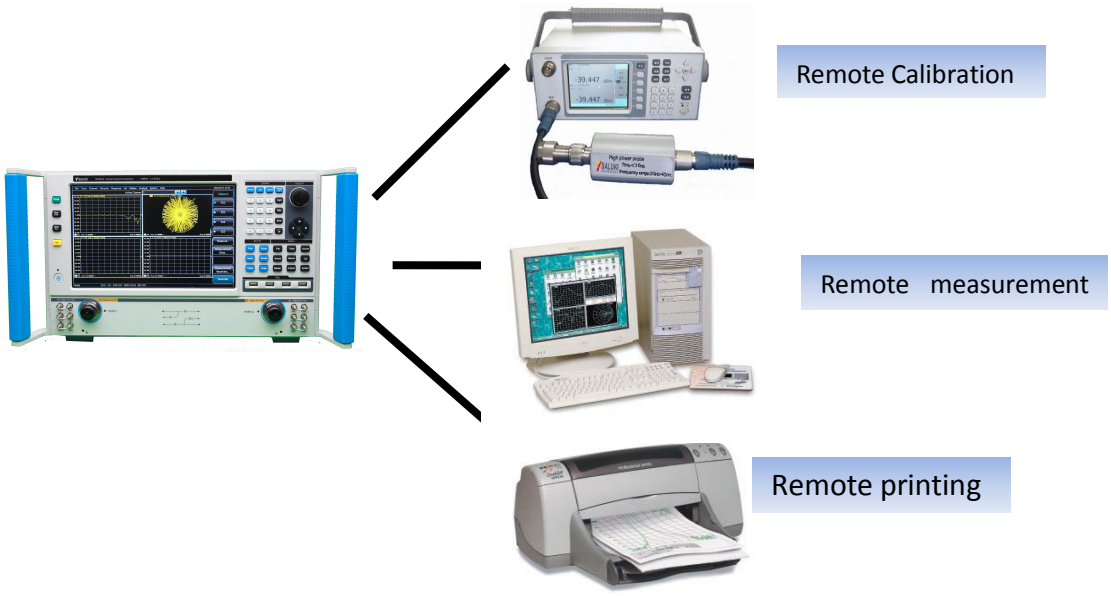
(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)



Automatic test

S3602 series vector network analyzer can provide a integrated automatic test solutions including automatic calibration, automatic measurement, automatic reading and automatic printing.

Flexible and multiple control modes are provided through GPIB, LAN, and USB interfaces.



SALUKI TECHNOLOGY

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

Typical Applications

- **Mixer test**

The 4-port measurement option of S3602 series vector network analyzer has two built-in sources. It can be used to measure scalar and vector parameters of mixers.

- **Filter test**

S3602 series vector network analyzer provides a filter test menu, easy to do any filter test.

- **Integrated pulse S parameter test**

S3602 series vector network analyzer can output pulse modulation signal and can measure pulse network S parameters.

- **High-speed sweep magnetron test**

S3602 series vector network analyzer has high sweep speed. It is capable of magnetron test.

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

Technical Specifications (S3602A / B)

Frequency				
Frequency Range	S3602A: 10MHz - 13.5GHz S3602B: 10MHz - 26.5GHz			
Frequency Resolution	1Hz			
Frequency Accuracy	±1×10^{-7}（23℃±3℃）			
Port Harmonic Suppression				
Port 1,3 Harmonic Suppression	-51dBc（0.01-4GHz, -60dBc（4-13.5GHz）, -60dBc（13.5-26.5GHz）			
Port 2,4 Harmonic Suppression	-13dBc（0.01-4GHz）, -21dBc（4-13.5GHz）,-21dBc（13.5-26.5GHz）			
Port non-harmonic Suppression	-40dBc（0.01-13.5GHz）, -40dBc（13.5-16GHz）,-30dBc（16-26.5GHz）			
Port Power Characteristics				
Power Sweep Range	30dB（10-500MHz）, 32dB（0.5-4GHz）, 38dB（4-10GHz） 37dB（10-13.5GHz）, 35dB（13.5-20GHz）, 23dB（20-26.5GHz）			
Output Power	Frequency range	Port 1,3 Filtering mode	Port 1,3 High-power mode	Port 2, 4
	10 - 50MHz	+1dBm	+9dBm	+13dBm
	0.05 - 4GHz	0dBm	+6dBm	+13dBm
	4 - 10GHz	+13dBm		+10dBm
	10 - 13.5GHz	+8dBm		+8dBm
	13.5 - 20GHz	+6dBm		+5dBm
	20 - 26.5GHz	+2dBm		+0dBm
1dB Compression Level	+10dBm（0.01 - 13.5GHz）, +10dBm（13.5 - 16GHz） +2dBm（16 - 26.5GHz）			
Power Linearity（23℃±3℃）	±2.0dB			
Pulse Characteristics				
Pulse Width Setting Range	33ns - 60s			
Pulse transition time	30ns （10%- 90%）			

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S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

Pulse off ratio	64dB（0.01-4GHz）, 80dB（4-13.5GHz）, 80dB（13.5-26.5GHz）
Network Parameter Characteristics	
System Dynamic Range	90dB（10-50MHz）, 95dB（0.05-0.5GHz）,120dB（0.5-4GHz） 127dB（4-10GHz）, 120dB（10-13.5GHz）, 120dB（13.5-20GHz） 115dB（20-24GHz）, 110dB（24-26.5GHz）
Effective Directionality	48dB（0.01-2GHz）, 44dB（2-13.5GHz）, 44dB（13.5-26.5GHz）
Effective Source Match	40dB（0.01-2GHz）, 30dB（2-13.5GHz）, 30dB（13.5-26.5GHz）
Payload Match	48dB（0.01-2GHz）, 44dB（2-13.5GHz）, 44dB（13.5-26.5GHz）
Reflection Tracking	±0.04dB(0.01-2GHz), ±0.04dB(2-13.5GHz), ±0.05dB(13.5-26.5GHz)
Transmission Tracking	±0.10dB(0.01-2GHz), ±0.11dB(2-13.5GHz), ±0.12dB(13.5-26.5GHz)
Other	
Amplitude Trace Noise **dB rms (1kHz IF bandwidth)**	0.007（10-100MHz）, 0.002（0.1-13.5GHz）, 0.002（13.5-22.5GHz） 0.003（22.5-24GHz）, 0.005（24-26.5GHz）
Phase Noise Trace **deg rms (1kHz IF bandwidth)**	0.051（10-100MHz）, 0.015（0.1-13.5GHz）, 0.042（13.5-22.5GHz） 0.054（22.5-24GHz）, 0.054（24-26.5GHz）
IF Bandwidth	1Hz - 5MHz
Amplitude Display Resolution	0.001dB/div
Phase display Resolution	0.01°/div
Amplitude Reference Level Set Required Value	-500 ~ +500dB
Phase Reference Level Set Required Value	-500 ~ +500°
General Characteristics	
Port Connector Type	3.5mm (M)， 50 Ω systematic impedance
Measurement of Ports	S3602A/B: 2 port Standard; S3602A/B-400: 4 port (optional)
Peripheral Interface	USB, GPIB, VGA, LAN
operating System	Windows 7

SALUKI TECHNOLOGY

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

General Information

Display Method	12.I inch high resolution touch screen
Dimension (LxHxW)	426mm×266mm×550mm（Including handles, pad foot and footing） 463mm×279.5mm×640mm（handles, pad foot and footing are not included）
The Maximum Power Consumption	400W
Maximum Weight	42kg

Standard Package

Item	Name	Qty
1	S3602A Vector Network Analyzer (10MHz - 13.5GHz)	1 Set
	S3602B Vector Network Analyzer (10MHz - 26.5GHz)	1 Set
2	Standard three-wire Power Cord	1 PC
3	USB keyboard / Mouse	1 PC
4	User Guide	1 PC

Optional Package for S3602A

Part No.	Name	Description
S3602A-201	Dual-Interface Programmable Step Attenuator	Equip source path with two 70dB programmable step attenuator and equip receiver path with two 35dB programmable step attenuator
S3602A-400	Four-Interface Measurement	Dual incentive Four-Interface Vector Network Analyzer
S3602A-401	Four-Interface Programmable Step Attenuator	Equipping source path with 4 70dB Programmable Step Attenuator and equipping receiver channel with 4 35dB Programmable Step Attenuator (must work with 400)
S3602B-402	Active Intermodulation Measurement	Applicable for Active Intermodulation Measurement of Amplifier (400 Options)
S3602A-008	Pulse Measurement	Applicable for S Parameter Measurement under pulse circumstance

SALUKI TECHNOLOGY

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

S3602A-S10	Time Domain Measurement	Able to recognize and analyze the discontinuous location of instrument, cable or fixture .
S3602A-S80	Frequency Deviation Measurement	Applicable for frequency deviation measurement, necessary for millimeter wave spread spectrum monitor.
S3602A-S82	Scalar Measurement of Mixer	Applicable for the mixer's scalar measurement
S3602A-S83	Vector Measurement of Mixer	Applicable for the mixer's vector measurement
S3602A-S84	Embedded Local Oscillator Measurement	Applicable for Embedded Local Oscillator Measurement
S3602A-S86	Gain Compression Two Dimensional Scanning Measurement	Applicable for Amplifier's Gain Compression Two Dimensional Scanning Measurement
SAV31121	3.5mm Calibrator	Applicable for Whole-Machine Calibration
FB0HA0HB025.0	3.5mm Test Cable	Applicable for Whole-Machine Measurement
FB0HA0HC025.0	3.5mm Test Cable	Applicable for Whole-Machine Measurement
SAV20403	Electronic Calibrator	Applicable for Whole-Machine Calibration (10MHz-26.5GHz second Interface)
SAV20405	Electronic Calibrator	Applicable for Whole Machine Calibration (10MHz-20GHz Fourth Interface)

Optional Package for S3602B

Part No.	Name	Description
S3602B-201	Dual-Interface Programmable Step Attenuator	Equip source path with two 70dB programmable step attenuator and equip receiver path with two 35dB programmable step attenuator
S3602B-400	Four-Interface Measurement	Dual incentive four-interface Vector Network Analyzer
S3602B-401	Four-Interface Programmable Step Attenuator	Equipping source path with four 70dB programmable step attenuator and equipping receiver channel with four 35dB programmable step attenuator (must work with option 400)

S3602A / B Vector Network Analyzer

(Frequency Range: 10MHz – 13.5GHz / 26.5GHz)

S3602B-402	Active Inter modulation Measurement	Applicable for active inter modulation measurement of amplifier (400 Options)
S3602B-008	Pulse Measurement	Applicable for S Parameter measurement under pulse circumstance
S3602B-S10	Time Domain Measurement	Able to recognize and analyze the discontinuous location of instrument, cable or fixture.
S3602B-S80	Frequency Deviation Measurement	Applicable for frequency deviation measurement, necessary for millimeter wave spread spectrum monitor.
S3602B-S82	Scalar Measurement of Mixer	Applicable for the mixer's scalar measurement
S3602B-S83	Vector Measurement of Mixer	Applicable for the mixer's vector measurement
S3602B-S84	Embedded Local Oscillator Measurement	Applicable for embedded local oscillator measurement
S3602B-S86	Gain Compression Two Dimensional Scanning Measurement	Applicable for amplifier's gain compression two dimensional scanning measurement
SAV31121	3.5mm Calibration Piece	Applicable for whole-machine calibration
FB0HA0HB025.0	3.5mm Test Cable	Applicable for whole-machine measurement
FB0HA0HC025.0	3.5mm Test Cable	Applicable for whole-machine measurement
SAV20403	Electronic Calibration Piece	Applicable for whole-machine calibration (10MHz-26.5GHz second Interface)
SAV20405	Electronic Calibration Piece	Applicable for whole machine calibration (10MHz-20GHz fourth interface)

Note: *Information will conduct the necessary updates， the contents of this document are subject to change without notice*