SNA6000A Series Vector Network Analyzer

Datasheet

EN02A

SIGLENT TECHNOLOGIES CO., LTD.

SNA6134A / SNA6132A
SNA6124A / SNA6122A
SNA6034A / SNA6032A
SNA6024A / SNA6022A

Product Overview

The SIGLENT SNA6000A series of Vector Network Analyzers have a frequency range of 100 kHz to 13.5 GHz and 100 kHz to 26.5 GHz, which support 2/4-port scattering parameter, differential-parameter, and time-domain parameter measurements. The SNA6000A series of VNAs are effective instrumentation for determining the Q-factor, bandwidth, and insertion loss of a filter. They feature impedance conversion, movement of measurement plane, limit testing, ripple test, fixture simulation, and adapter removal/insertion adjustments. The VNAs have five sweep types: Linear-Frequency mode, Log-Frequency mode, Power-Sweep mode, CW-Time mode, and Segment-Sweep mode. The SNA6000A series VNAs also support scattering-parameter correction of SOLT, SOLR, TRL, Response, and Enhanced Response for increased flexibility in R&D and manufacturing applications.

Key Features

- Frequency range:
  100 kHz - 13.5 GHz and 100 kHz - 26.5 GHz
- Power resolution: 0.01 dB
- Range of IFBW: 1 Hz~10 MHz
- Setting range of output level[1]:
  -60 dBm ~ +20 dBm
- Dynamic range[2]: 135 dB
- Types of calibration: Response calibration, Enhanced Response calibration, Full-one port calibration, Full-two port calibration, Full-three port calibration, Full-four port calibration, TRL calibration
- Types of measurement: Scattering-parameter measurement, differential-parameter measurement, receiver measurement, time-domain parameter analysis, enhanced time-domain parameter analysis (TDR), limit test, ripple test, impedance conversion, fixture simulation, adapter removal/insertion, spectrum analysis, frequency offset, scalar mixer measurement, vector mixer measurement, pulse measurement, material measurement, gain compression measurement, automatic fixture removal
- Internal Bias-Tee connections
- Interface: LAN, USB Device, USB Host (USB-GPIB)
- Remote control: SCPI/ Labview/ IVI based on USB-TMC / VXI-11 / Socket /Telnet / WebServer
- 12.1-inch touch screen
- Video output: HDMI/ DVI-D/ DP

Note 1: The actual output power range is detailed in the section on test port output power. The setting range of output level does not represent the test port power output range. Applicable to software version of V1.0.0.2.13 and above
Note 2: The actual dynamic range is detailed in section on dynamic range. 135dB is a specification value within a certain frequency range and does not represent all frequency range

Models and Key Specifications

Model	SNA6034A SNA6134A	SNA6032A SNA6132A	SNA6024A SNA6124A	SNA6022A SNA6122A
Frequency range	100kHz-26.5GHz		100kHz-13.5GHz	
Ports	4	2	4	2
Power resolution	0.01 dB			
Range of IFBW	1 Hz~10 MHz			
Number of points [1]	1 to 100,001			
Setting range of output level [2]	-60 dBm ~ +20 dBm			
Dynamic range [3]	135 dB			
Types of calibration	Response calibration, Enhanced Response calibration, Full-one port calibration, Full-two port calibration, Full-three port calibration, Full-four port calibration, TRL calibration			
Types of measurement	Scattering-parameter measurement, differential-parameter measurement, receiver measurement, time-domain parameter analysis, enhanced time-domain parameter analysis (TDR) , limit test, ripple test, impedance conversion, fixture simulation, adapter removal/insertion, spectrum analysis, frequency offset, scalar mixer measurement, vector mixer measurement, pulse measurement, material measurement, gain compression measurement, automatic fixture removal			
Bias-Tees	Support			
Interface	LAN, USB Device, USB Host(USB-GPIB), etc			
Remote control	SCPI/ Labview/ IVI based on USB-TMC/ VXI-11/ Socket/ Telnet/ WebServer			
Display	12.1-inch touch screen			
Video output	HDMI/ DVI-D/ DP			

Note 1: Refers to the setting range of points for a single trace. Applicable to software version of V1.0.0.2.15 and above

Note 2: The actual output power range is detailed in the section on test port output power. The setting range of output level does not represent the test port power output range. Applicable to software version of V1.0.0.2.13 and above

Note 3: The actual dynamic range is detailed in section on dynamic range. 135dB is a specification value within a certain frequency range and does not represent all frequency range

Design Features

Progressive and Distinctive Design

SNA6000A series is equipped with 12.1-inch high-definition color touch screen, providing a clear view of test traces and visible results

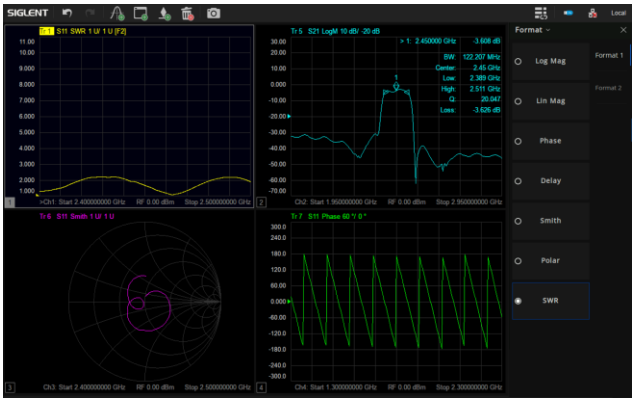
Supports 2-port and 4-port measurements, supports configuring front panel test jumpers

Equipped with diverse external interfaces for connecting various peripheral equipment

Upgraded Processor System

Processor fully upgraded from the embedded ARM processor to the X86 processor, significantly enhancing the computing performance and system response speed of the instrument, providing stronger computational support for high-precision RF testing

Easy-to-use Operating System



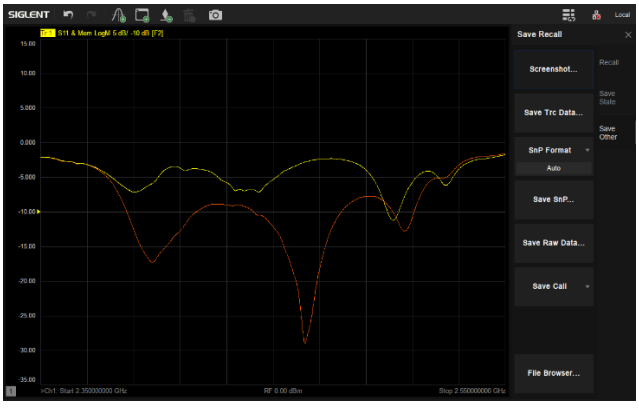
SIGLENT easy-to-use operating system boasts a simple and intuitive interface

Supports multi-window, multi-channel, multi-trace measurements. Different formats can be displayed, facilitating observation of the DUT from various perspectives

Support multi-touch and gesture operations

Support remotely control based on SCPI command

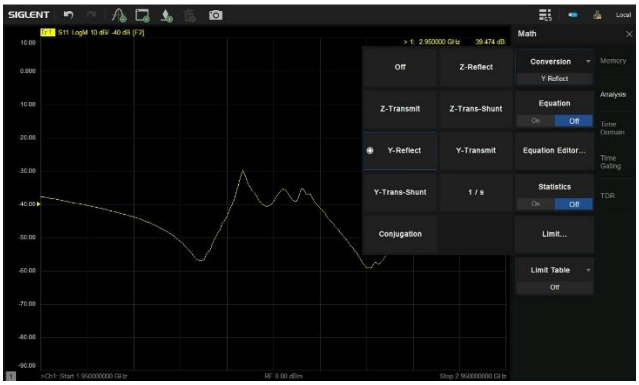
Multiple Data Display Functions



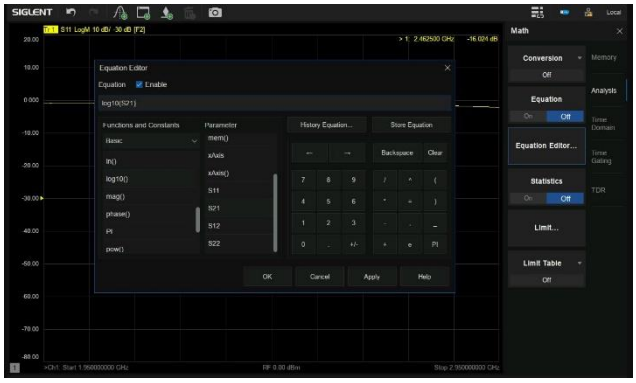
Display and compare memory and current data

Display data hold

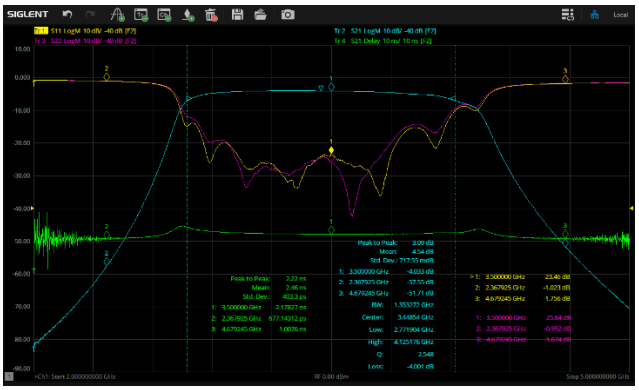
Comprehensive Data Analysis Functions



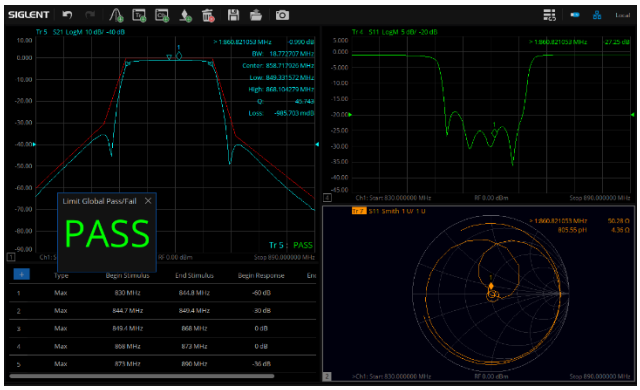
Impedance Conversion



Equation Editor

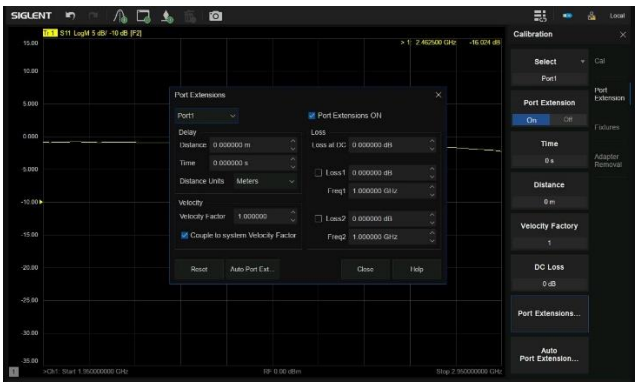


Trace Statistics and Bandwidth Test

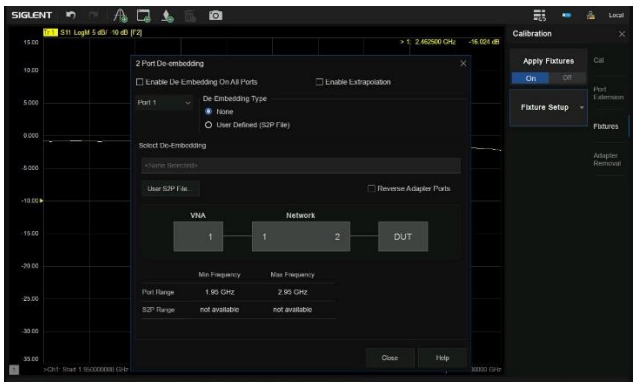


Limit Test

Advanced Error Correction Functions



Port Extensions



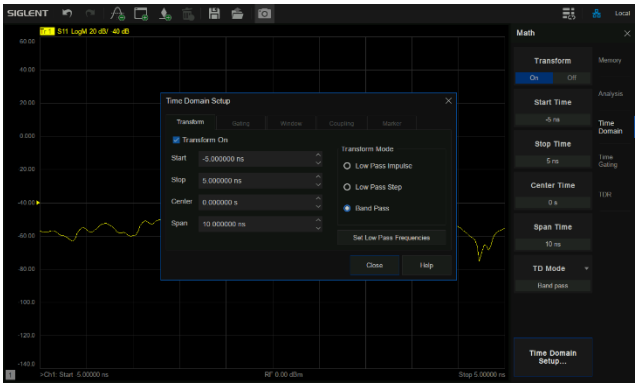
Embedding / De-embedding

SNA6000A series supports multiple calibration methods, including Response calibration, Enhanced Response calibration, Full-one port calibration, Full-two port calibration, Full-three port calibration, Full-four port calibration, TRL calibration

Supports mechanical calibration kit of multiple models

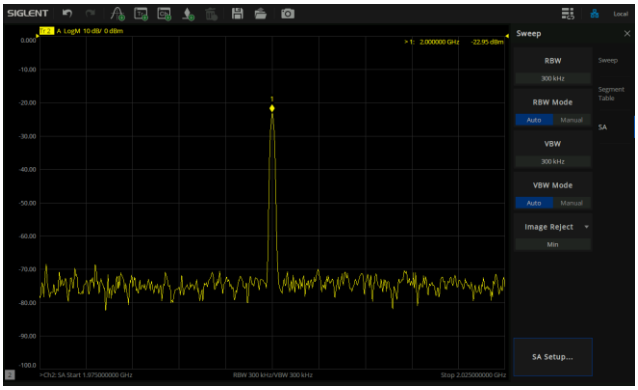
Support Electronic Calibration (ECal) Modules for quick calibration execution

Abundant Options for Multiple Measurement Scenarios

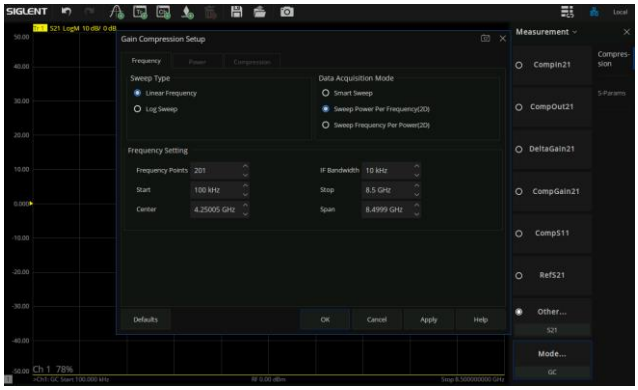


Time-Domain Analysis (SNA6000-TDA)

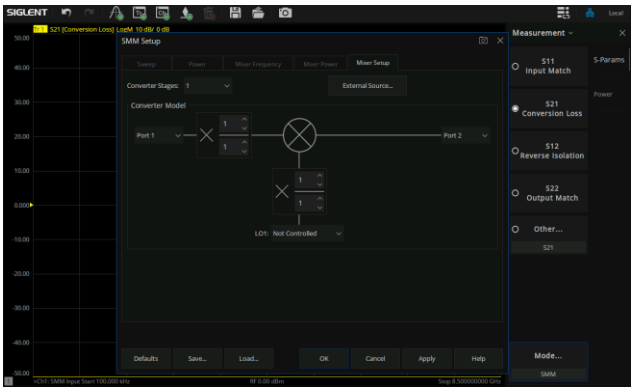
Enhanced Time-Domain analysis (SNA6000-TDR)



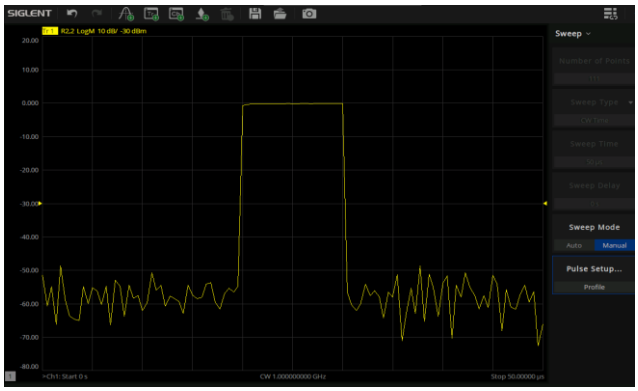
Spectrum Analysis (SNA6000-SA)



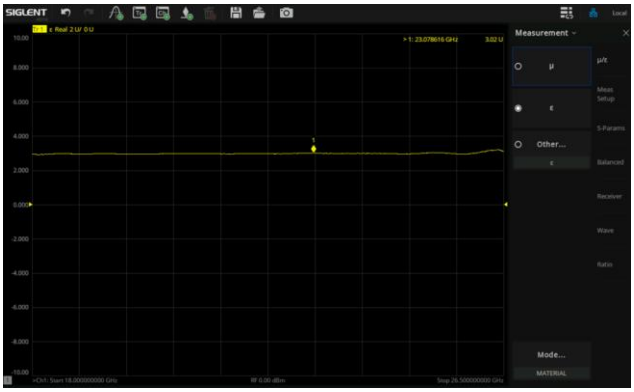
Gain Compression Measurement (SNA6000-GC)



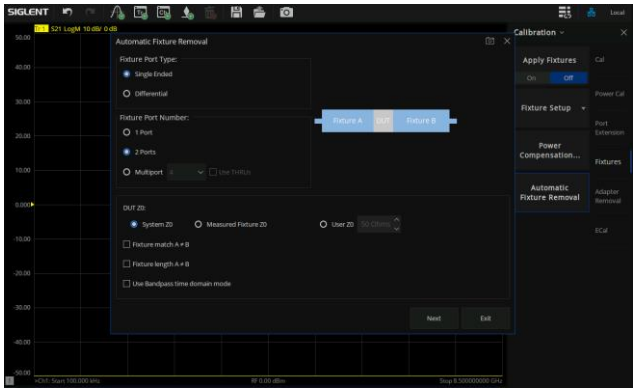
Scalar/Vector Mixer Measurement (SNA6000-SMM/VMM)



Pulse Measurement (SNA6000-PM)



Material Measurement (SNA6000-MT)



Automatic Fixture Removal (SNA6000-AFR)

Use Switch Matrix for Multi-port Test

The output ports can be expanded to a maximum of 24 using SIGLENT SSM5000A series RF switch matrix. Compared to traditional measurement methods, switch matrix can help engineers easily achieve the connection and testing of multi-port devices, greatly facilitating automated testing in production lines

Various RF Test Accessories

SIGLENT provides various RF test accessories, including mechanical calibration kit, electronic calibration (ECal) modules, TDR probes, RF cables, RF connectors, RF demonstration boards, etc. The accessories can be fully equipped in one-stop to ensure hassle-free testing

Definitions

Specifications are valid under the following conditions: The instrument is within the calibration period, has been stored between 0 and 40℃ for at least 2 hours before use, and has been powered on and warmed up for at least 90 minutes. The specifications include the measurement uncertainty unless otherwise noted.

Specifications(Spec.): All products are guaranteed to meet published specifications at room temperature (25℃±3℃), unless otherwise noted.

Typical(Typ.): Performance deemed typical implies that 80 percent of the measurement results will meet the typical published performance with a 95th percentile confidence level at room temperature (25℃±3℃). Typical performance is not warranted and does not include measurement uncertainty.

Nominal: This value indicates the expected mean or average performance, or an attribute whose performance is by design, such as the 50 Ohm connector.

Specifications

Dynamic range

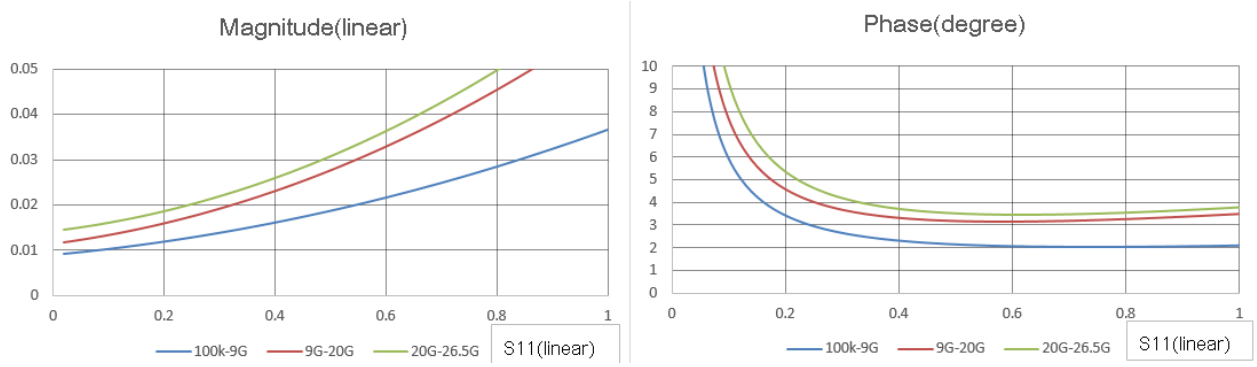
Frequency range	IFBW	Specification(dB)
100 kHz- 1 MHz	10Hz	120
1 MHz- 500 MHz		125
500 MHz- 1 GHz		130
1 GHz- 20 GHz		135
20 GHz- 24 GHz		127
24 GHz- 26.5 GHz		120

Corrected system performance with calibration kit

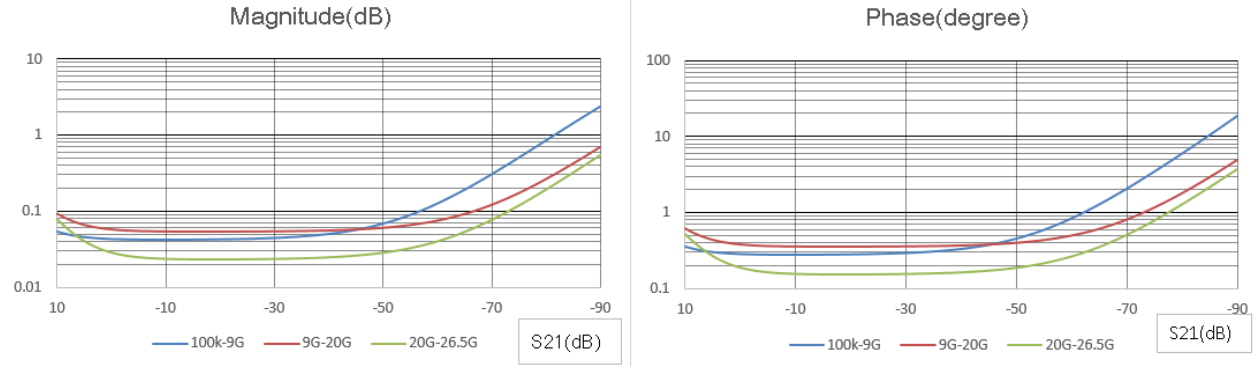
User correction: On, system correction: On; Corrected system performance with Keysight 85052D 3.5mm calibration kit, isolation calibration performed. IFBW is 10 Hz, no averaging applied to data, and environmental temperature is 25℃ (± 5℃), with < 1℃ deviation from calibration temperature.

Specification (dB)	100 kHz-9 GHz	9 GHz-20 GHz	20 GHz-26.5 GHz
Directivity	41	36	35
Source match	36	29	27
Load match	41	36	33
Reflect tracking	±0.004	±0.003	±0.01
Transmission tracking	±0.06	±0.09	±0.5

Reflection uncertainty (Specification, Power: -10 dBm, IFBW:10 Hz):



Transmission uncertainty (Specification, Power: -10 dBm, IFBW:10 Hz):



Uncorrected system performance

User correction: Off, system correction: On; IFBW is 10 Hz, no averaging applied to data.

Specification (dB)	100 kHz-1 GHz	1 GHz-9 GHz	9 GHz-20 GHz	20 GHz-26.5 GHz
Directivity	20	20	16	13
Source match	20	20	16	13
Load match	8	11	6.5	6.5
Reflect tracking	±1.4	±1.4	±1	±1
Transmission tracking	±1.4	±1.4	±1	±1

Test port output (Source)

Test port output frequency

Description	Specification
Frequency range	
SNA6034A/ SNA6032A/ SNA6134A/ SNA6132A	100 kHz to 26.5 GHz
SNA6024A/ SNA6022A/ SNA6124A/ SNA6122A	100 kHz to 13.5 GHz
Frequency resolution	
100 kHz - 250 MHz	1 mHz
250 MHz - 450 MHz	0.1 Hz
450 MHz – 1.5 GHz	0.5 Hz
1.5 GHz – 3.8 GHz	1 Hz
3.8 GHz – 7.8 GHz	2 Hz
7.8 GHz – 13.5 GHz	4 Hz
13.5 GHz – 26.5 GHz	8 Hz
CW accuracy	
Standard	± 1.0 ppm（23 ± 3 ℃）
Option: SNA6000-HPR	± 0.1 ppm（23 ± 3 ℃）
Source stability	
Standard	± 1.0 ppm（0 to 40 ℃） ± 0.5 ppm/year，± 3.0 ppm/20 year
Option: SNA6000-HPR	± 1 ppb（0 to 40 ℃），± 50 ppb/year

Test port output power

Description	Specification	Typical
Preset power	0 dBm	
Level accuracy		
100 kHz - 10 MHz	±2.0 dB@0 dBm	
10 MHz - 20 GHz	±1.5 dB@0 dBm	
20 GHz- 26.5 GHz	±2.0 dB@0 dBm	
Level linearity		
100 kHz- 1 MHz	±0.75 dB（-20 dBm to 10 dBm）	
1 MHz- 500 MHz	±0.75 dB（-20 dBm to 10 dBm）	
500 MHz- 1 GHz	±0.75 dB（-20 dBm to 10 dBm）	
1 GHz- 20 GHz	±1.0 dB（-20 dBm to 10 dBm）	
20 GHz- 24 GHz	±1.0 dB（-20 dBm to 7 dBm）	
24 GHz- 26.5 GHz	±1.2 dB（-20 dBm to 5 dBm）	
Setting range of output level[1]		
100 kHz- 26.5 GHz	-60 dBm to 20 dBm	
Sweep range		
100 kHz- 1 MHz	-50 dBm to 10 dBm	
1 MHz- 500 MHz	-50 dBm to 10 dBm	
500 MHz- 1 GHz	-50 dBm to 10 dBm	
1 GHz- 20 GHz	-50 dBm to 10 dBm	
20 GHz- 24 GHz	-50 dBm to 7 dBm	
24 GHz- 26.5 GHz	-50 dBm to 5 dBm	
Max leveled power		
100 kHz- 1 MHz	10 dBm	11 dBm
1 MHz- 500 MHz	10 dBm	13 dBm
500 MHz- 1 GHz	10 dBm	13 dBm
1 GHz- 20 GHz	10 dBm	13 dBm
20 GHz- 24 GHz	7 dBm	8 dBm
24 GHz- 26.5 GHz	5 dBm	8 dBm
Power resolution		0.01 dB

Note 1: Applicable to software version of V1.0.0.2.13 and above

Test port output signal purity

Description	Specification	Typical
2nd or 3rd harmonics (0 dBm)		
100 kHz to 10 MHz		<-20 dBc
10 MHz to 26.5 GHz		<-25 dBc
Non-harmonic spurious (0 dBm)		<-30 dBc

Test port input

Test port input levels

Description	Specification	Typical
Max input level		
100 kHz-26.5 GHz	+10 dBm	
Damage input level		
100 kHz-26.5 GHz	+27 dBm(RF) or 35 V(DC)	
Crosstalk		
100 kHz - 10 MHz	±2.5 dB@0 dBm	
10 MHz - 20 GHz	±1.5 dB@0 dBm	
20 GHz- 26.5 GHz	±2.0 dB@0 dBm	
Crosstalk		
100 kHz- 500 kHz	-95 dB	
500 kHz- 5 MHz	-110 dB	
5 MHz- 13.5 GHz	-120 dB	
13.5 GHz- 26.5 GHz	-108 dB	
Noise floor		
100 kHz- 500 MHz	-115 dBm/Hz	
500 MHz- 1 GHz	-125 dBm/Hz	
1 GHz- 8 GHz	-130 dBm/Hz	
8 GHz- 20 GHz	-135 dBm/Hz	
20 GHz- 26.5 GHz	-130 dBm/Hz	
Compression level (+10 dBm)		
Magnitude		
100 kHz- 13.5 GHz	0.5 dB	0.3 dB
13.5 GHz- 26.5 GHz	1.0 dB	0.5 dB
Phase		
100 kHz- 13.5 GHz	5 deg	1 deg
13.5 GHz- 26.5 GHz	5 deg	1.5 deg

Trace noise

Description	Specification	Typical
Note: Setting max output power		
Transmission/reflection trace noise magnitude		
100 kHz- 10 MHz（IFBW=10 Hz）	0.005 dB rms	
10 MHz- 13.5 GHz（IFBW=10 kHz）	0.009 dB rms	
13.5 GHz- 26.5 GHz（IFBW=10 kHz）	0.015 dB rms	
Transmission/reflection trace noise phase		
100 kHz- 10 MHz（IFBW=10 Hz）	0.012 deg rms	
0 MHz- 13.5 GHz（IFBW=10 kHz）	0.05 deg rms	
13.5 GHz- 26.5 GHz（IFBW=10 kHz）	0.05 deg rms	

Stability

Description	Specification	Typical
Magnitude		
100 kHz- 13.5 GHz		± 0.01 dB/°C
13.5 GHz- 26.5 GHz		± 0.05 dB/°C
Phase		
100 kHz- 13.5 GHz		± 0.1 deg/°C
13.5 GHz- 26.5 GHz		± 0.9 deg/°C

Dynamic accuracy

Description	Specification
Relative to -10 dBm input power	
Magnitude	
10 dBm	± 2.29 dB
0 dBm	± 0.09 dB
-20 dBm	± 0.13 dB
-30 dBm	± 0.19 dB
-40 dBm	± 0.27 dB
-50 dBm	± 0.39 dB
-60 dBm	± 0.59 dB
-70 dBm	± 0.85 dB
-80 dBm	± 1.95 dB
-90 dBm	± 2.35 dB
-100 dBm	± 2.5 dB
Phase	
10 dBm	± 14.5 deg
0 dBm	± 1.45 deg
-20 dBm	± 1.85 deg
-30 dBm	± 3.99 deg
-40 dBm	± 5.27 deg
-50 dBm	± 6.39 deg
-60 dBm	± 8.59 deg
-70 dBm	± 10.85 deg
-80 dBm	± 11.95 deg
-90 dBm	± 12.35 deg
-100 dBm	± 16.5 deg

Sweep time

Start frequency: 100 kHz, Stop frequency: 26.5 GHz; IFBW: 500 kHz.				
Points	201	401	1601	6401
Uncorrected	30 ms	54 ms	70 ms	229 ms
2-port cal	60 ms	108 ms	140 ms	458 ms
Start frequency: 100 kHz, Stop frequency: 26.5 GHz; IFBW: 100 kHz.				
Points	201	401	1601	6401
Uncorrected	32 ms	57 ms	82 ms	275 ms
2-port cal	34 ms	114 ms	164 ms	550 ms
Start frequency: 100 kHz, Stop frequency: 26.5 GHz; IFBW: 10 kHz.				
Points	201	401	1601	6401
Uncorrected	48 ms	89 ms	209 ms	784 ms
2-port cal	96 ms	178 ms	418 ms	1568 ms
Start frequency: 100 kHz, Stop frequency: 26.5 GHz; IFBW: 1 kHz.				
Points	201	401	1601	6401
Uncorrected	208 ms	409 ms	1487 ms	5895 ms
2-port cal	416 ms	818 ms	2974 ms	11790 ms

Spectrum Analyzer (SNA6000-SA)

Frequency and Time

Description	SNA6022/6024A/6122/6124A	SNA6032/6034A/6132/6134A
Frequency range	100 kHz- 13.5 GHz	100 kHz- 26.5 GHz
Range of span	100 Hz to Max Frequency	
Marker		
Marker resolution	Span / (Number of points - 1)	
Marker type	Normal, Delta, Fixed, Reference to, Marker table	
Marker Functions	Noise marker, N dB BW	
Bandwidths		
Resolution bandwidth (-3dB)	1 Hz ~ 1 MHz, in 1-3-10 sequence	
RBW uncertainty	< 10% (nom.)	
Video bandwidth (-3dB)	1 Hz ~ 1 MHz, in 1-3-10 sequence	
VBW uncertainty	< 10% (nom.)	
Sweep and Trigger		
Sweep rule	Single, Continuous	
Trigger source	Internal, Manual, External, Bus	
Trigger delay	0 ms ~ +10 ms	
External trigger	5V TTL level, Rising edge/Falling edge	

Amplitude Accuracy and Range

Description	Characteristic
Amplitude and Level	
Measurement range	DANL to +10 dBm
Input attenuation mode	Low noise: minimum attenuation Standard: maximum attenuation Auto: Automatically adjust the attenuation mode according to the reference level [1]
Maximum input level	+27 dBm or ±35 VDC (warranted)
Level Display	
Units of logarithmic level axis	dBm, dBmV, dBμV, dBμA
Logarithmic level axis	0.001dB to 1000 dB, 0.01 dB steps
Units of linear level axis	Volt, Watt
Linear level axis	0% to 100% (reference level)
Number of traces	More than 10
Trace detector	Sample, Positive, Negative, Normal, Average
Averaging type	Log Power, Power Average, Voltage Average
Trace type	Clear/write, Max Hold, Min Hold, Average
Trace state	Active, View, Blank, Background
Distortion and Spurious Responses	
Image reject type [2]	None: Selects 1 acquisitions, and mirror suppression is not performed Min: Selects 3 acquisitions Normal: Selects 4 acquisitions Better: Selects 5 acquisitions Max: Selects 6 acquisitions

Note 1: Reference level > 0 dBm, Standard; -20 dBm < Reference level≤ 0 dBm, Medium; Reference level≤ - 20dBm, Low noise

Note 2: Only 3 sets of data can be acquisitions at most when the frequency point is below 40MHz

Advanced Measurement Functions

Description	Characteristic
Power Measurement	
Channel Power	Channel Power, Power Spectral Density
ACPR (Adjacent Channel Power Ratio)	Main CH Power, Left channel power, Right channel power
Occupied BW	Occupied Bandwidth, Transmit Frequency Error
CNR (Carrier Noise Ratio)	Carrier Noise Ratio, Carrier Power, Noise Power
Non-Linear Measurement	
Harmonic Measurement	Max Harmonic number 10
TOI (Third-Order Intercept)	Measure the third-order products from two tones
Spectrum Monitor Measurement	
Spectrum Monitor	Spectrogram

Enhanced Time Domain Analysis (SNA6000-TDR)

Description	SNA6022A/6024A/6122A/6124A	SNA6032A/6034A/6132A/6134A
Bandwidth	13.5 GHz	26.5 GHz
Input Impedance	50 Ohm	
DC damage Level at test port	35 V	
Maximum test port input voltage (Hot TDR Mode)	1.5Vpp	
TDR stimulus	Step，Impulse	
TDR step amplitude	1 mV to 5 V	
TDR step rise time (min) (10% to 90%)	33.1 ps	16.9 ps
TDR step response resolution in free space (min) (εr = 1)	5 mm	2.5 mm
TDR impulse width (min)	44.7 ps	22.8 ps
DUT length (max)	1.25 μs	
Eye diagram data rate (max)	10.8 Gb/s	21.2 Gb/s

Pulse Measurement (SNA6000-PM)

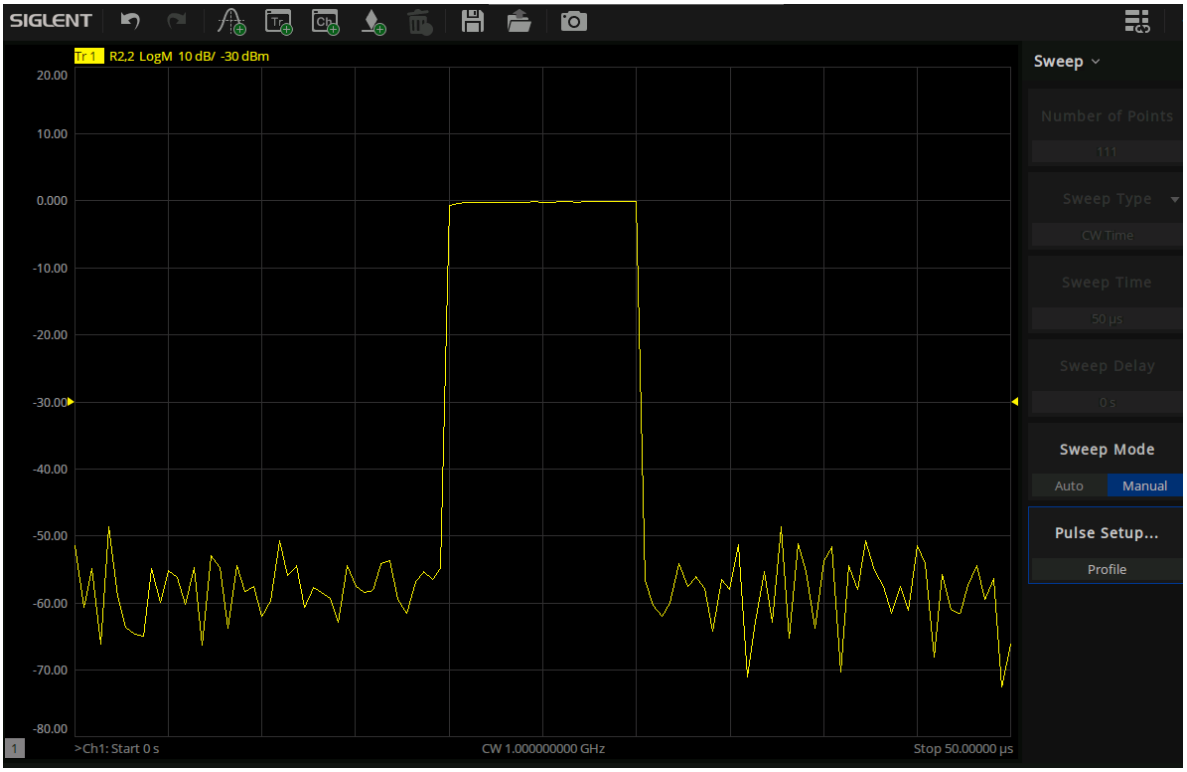
Pulse Modulation On/Off Ratio

Description	Specification (dB)
100 kHz- 13.5 GHz	80
13.5 GHz- 26.5 GHz	70

Pulse Modulation

Description	Specification
Minimum pulse width	10 usec
Minimum pulse period	30 usec
Maximum pulse period	26 sec

Pulse Modulation Shape Example



General Information

Description	Characteristics
Operating environment	
Temperature	0 to 40℃
Humidity	Type tested at 20 to 80%, wet bulb temperature < 29 ℃ (non-condensing)
Altitude	0 to 3000 m
Non-operating storage environment	
Temperature	-20℃ to 60℃
Humidity	Type tested at 20 to 90%, wet bulb temperature < 40 ℃ (non-condensing)
Altitude	0 to 15000 m
Size	W×H×D=426×251×494.5 mm
Weight	4-port: 19 kg
EMC	
Conducted disturbance: CISPR 11/EN 55011	CLASS A group 1, 150 kHz-30 MHz
Radiated disturbance: CISPR 11/EN 55011	CLASS A group 1, 30 MHz-1 GHz
Electrostatic discharge(ESD): IEC61000-4-2/EN61000-4-2	4.0 kV (contact), 8.0 kV (air)
Radio-frequency electromagnetic field Immunity: IEC 61000-4-3/EN 61000-4-3	10 V/m (80 MHz to 1 GHz)
	3 V/m (1.4 GHz to 2 GHz)
	1 V/m (2.0 GHz to 2.7GHz)
Electrical fast transients (EFT): IEC 61000-4-4/EN 61000-4-4	2 kV (AC power ports)
Surges: IEC 61000-4-5/EN 61000-4-5	1 kV (Line to line)
	2 kV (Line to ground)
Electrical fast transients (EFT): IEC 61000-4-4/EN 61000-4-4	3 V, 0.15-80 MHz
Voltage dips and interruptions: IEC 61000-4-11/EN 61000-4-11	Voltage dips:
	0% UT during 1 cycle;
	40% UT during 10/12 cycles;
	70% UT during 25/30 cycles
	Voltage interruptions: 0% UT during 250 cycles
Safety	
UL 61010-1:2012/R: 2018-11; CAN/CSA-C22.2 No. 61010-1:2012/A1:2018-11. UL 61010-2-030:2018; CAN/CSA-C22.2 No. 61010-2-030:2018.	

Front Panel Information

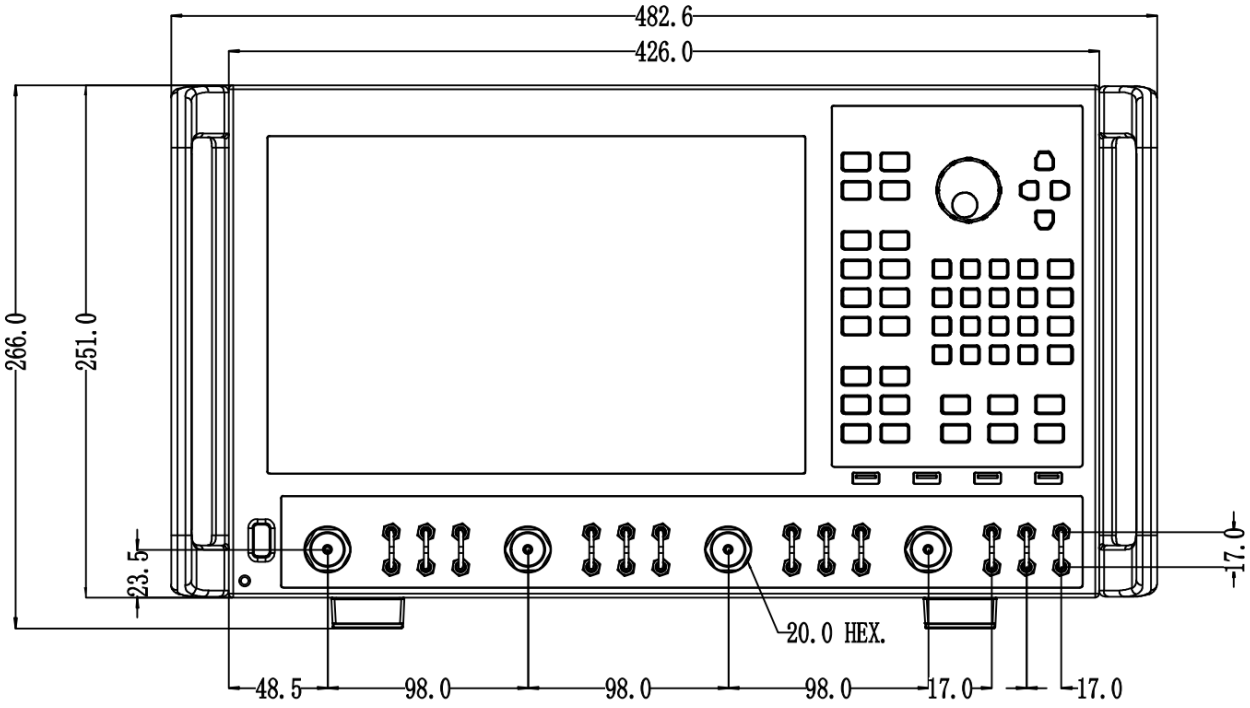
Description	Characteristics
Test port	
RF connector	NMD 3.5mm, male, 50Ω
Damage level	+27 dBm or ±35 VDC (warranted)
Front panel jumper	
RF connector	3.5mm, female, 50Ω (SNA6132/6134A/6122A/6214A)
Damage level	+10 dBm or ±35 VDC (warranted)
USB Host port	
Type	4x USB Type-A female
Standard	USB 2.0
Max output current	500mA (each)
Display	
Size	12.1 inch TFT color LCD with touch screen
Screen resolution	WXGA (1280 x 800)
Display range	
Magnitude	±6000 dB (at 1000 dB/div), max
Phase	±2160° (at 180 degrees/div), max
Display resolution	
Magnitude	0.001 dB/div, min
Phase	0.001°/div, min

Rear Panel Information

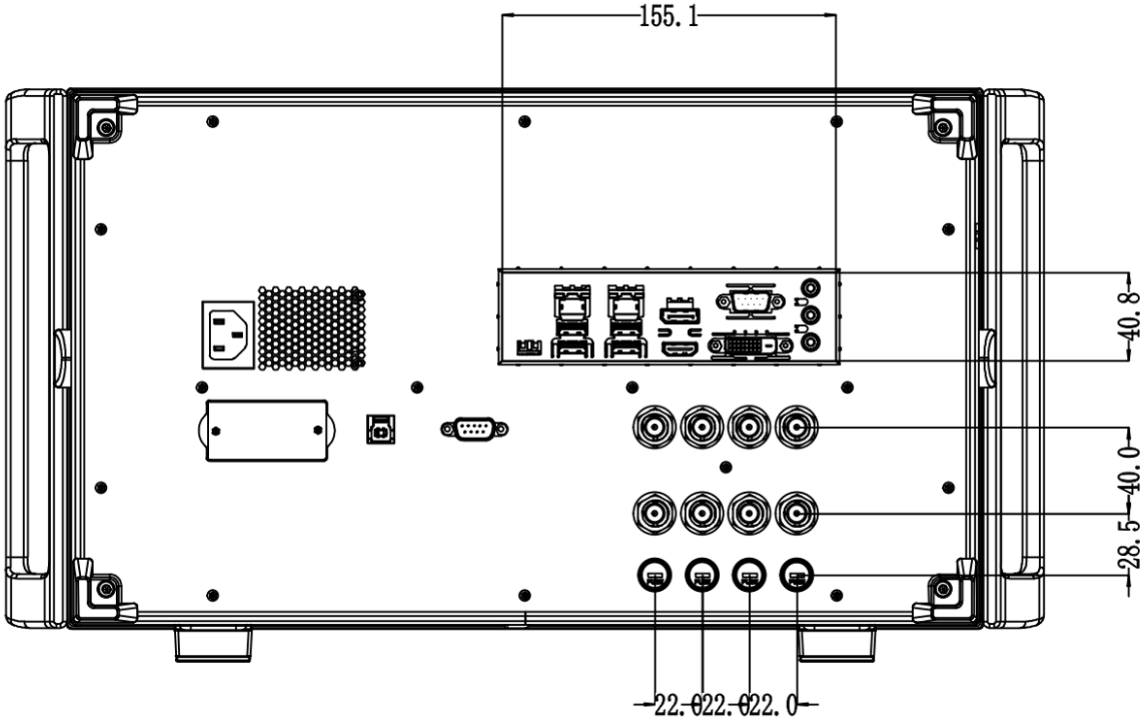
Description	Characteristics
Ext trigger input connector	
Type	BNC, female
Input level	5V TTL
Ext trigger output connector	
Type	BNC, female
Max output current	20 mA
Output level	3.3V TTL
Ext ref-signal input connector	
Type	BNC, female
Input frequency	10 MHz ±10 ppm
Input level	-3 dBm to +10 dBm
Input impedance	50Ω
Int ref-signal output connector	
Type	BNC, female
Output frequency	10 MHz ± 5 ppm
Signal type	Sinewave
Output level	0 dBm ± 3 dB into 50 Ω
Output impedance	50 Ω
Bias tee input connector	
Type	BNC, female
Max voltage	± 35 VDC
Max current (no degradation RF specification)	± 300 mA
Max current (damage level)	500 mA
USB Host port	
Type	4x USB Type-A female
Standard	USB 3.1 Gen 2 (H310: USB 3.1 Gen1)
Max output current	1A (each)
USB Device (USBTMC) port	
Type	1x USB Type-B
Standard	USB 3.0
LAN	
Type	2x 10/100/1000 BaseT Ethernet
Video output	
Type	1x DP 1.2: up to 4096x2304 @ 60Hz 1x HDMI 1.4: up to 4096 x 2160 @ 30 Hz 1x DVI-D: up to 1920 x 1200 @ 60 Hz
Audio	
Type	1x Line-out, 1x Line-in, 1x Mic-in connector

Description	Characteristics
COM	
Type	1x RS-232/422/485 with auto flow control connector
Digital IO	
Type	1x 9-pin D-Sub
Line Power	
Frequency, Voltage	100 ~ 240 Vrms 50/60 Hz
Power consumption	SNA6134A: 170 W (typical)

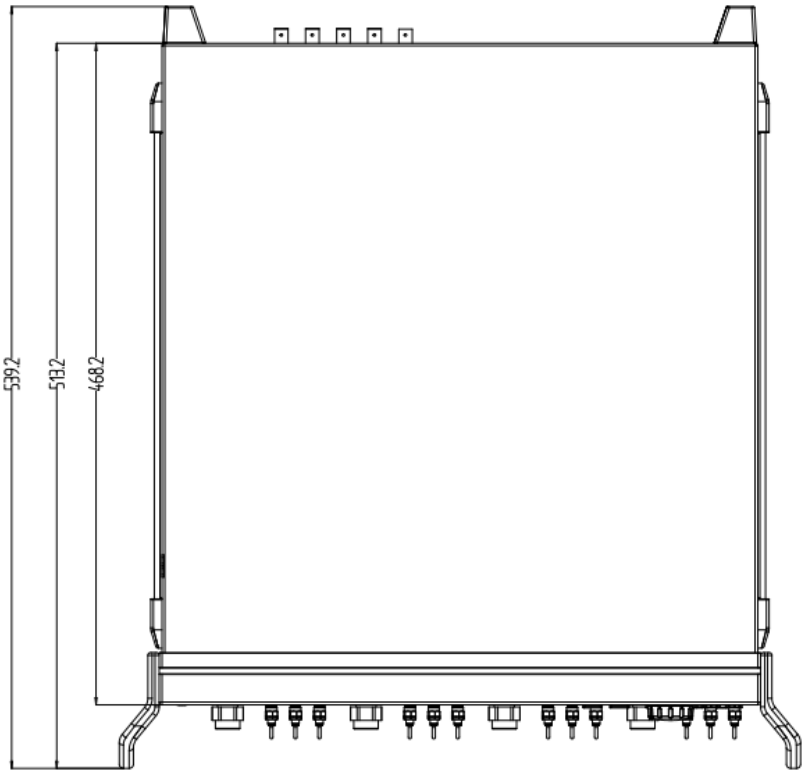
Mechanical Dimensions



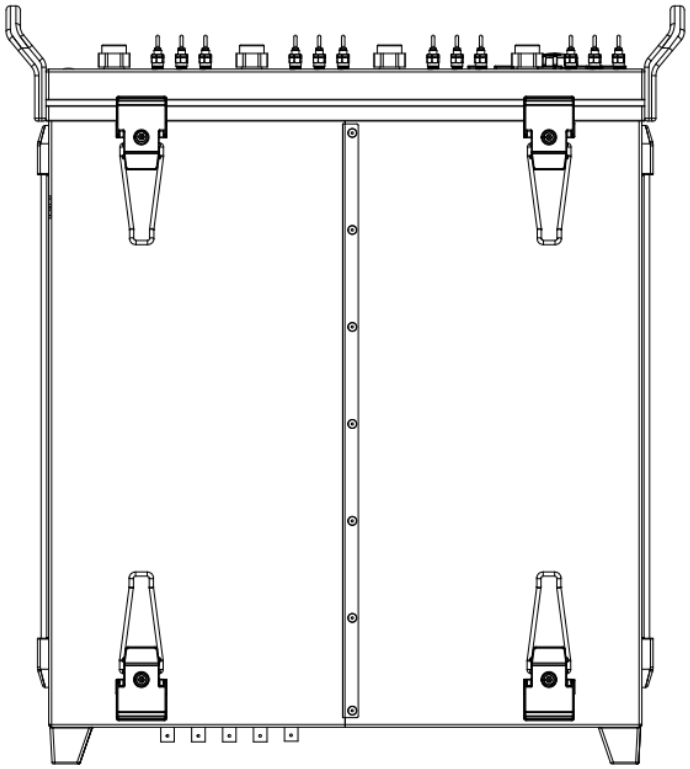
Front panel



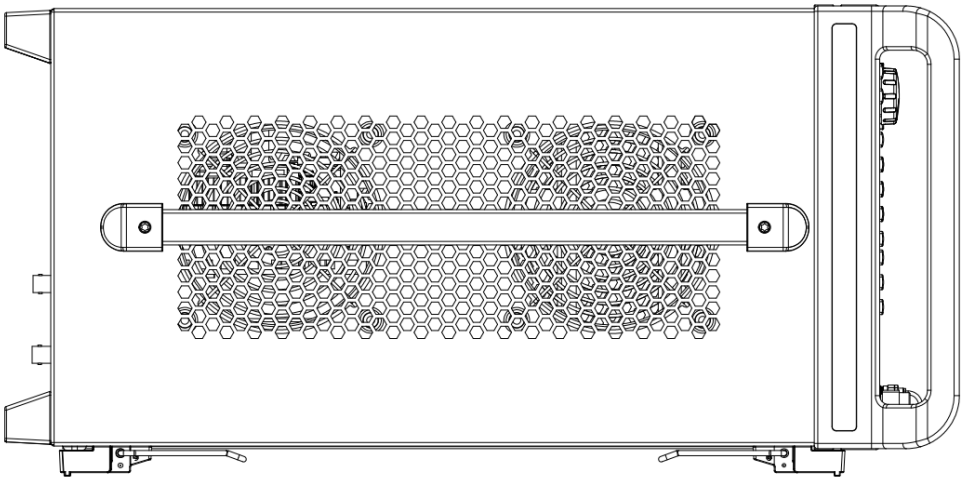
Rear panel



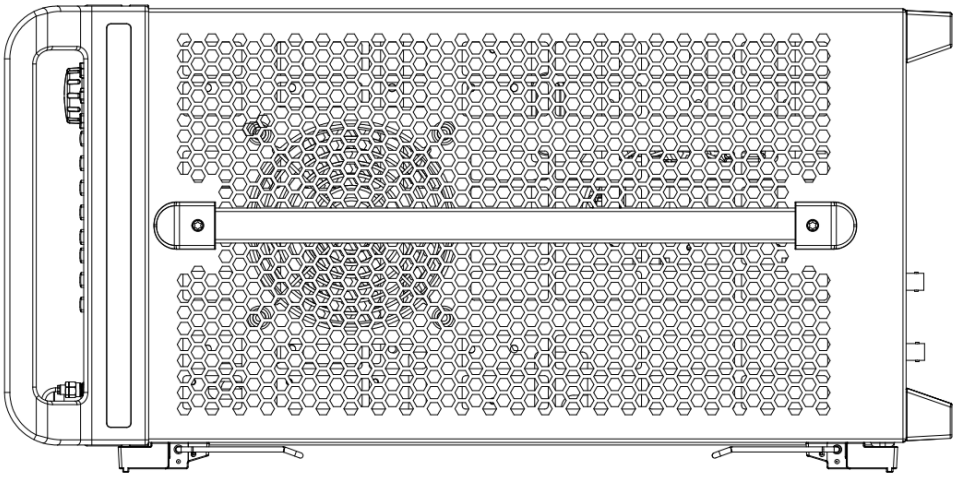
Top view



Bottom view

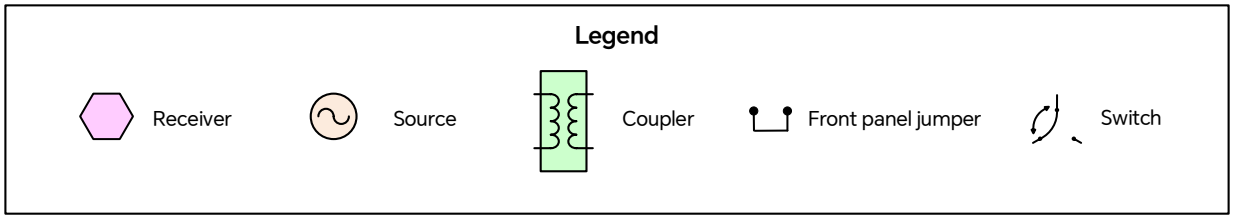


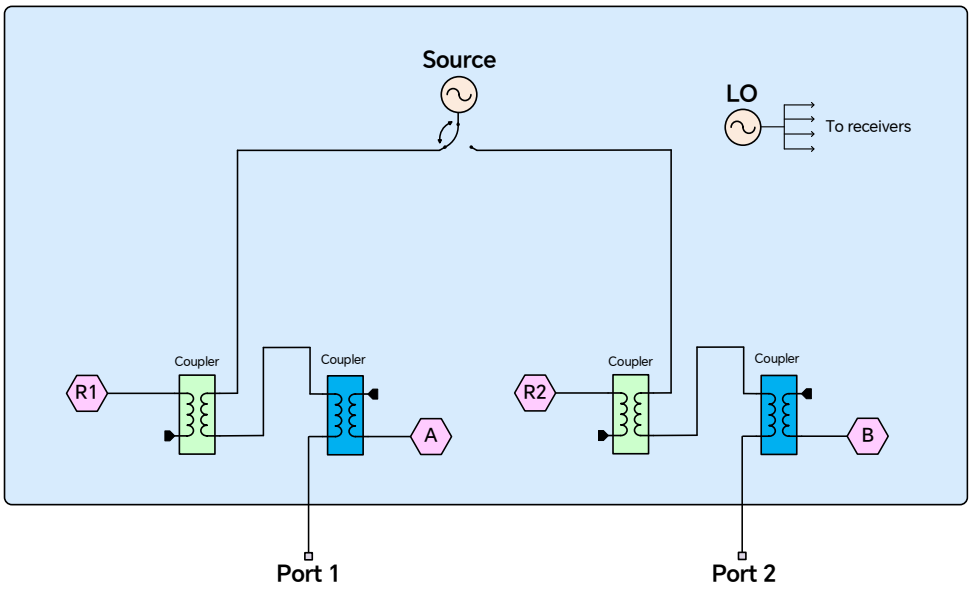
Left view



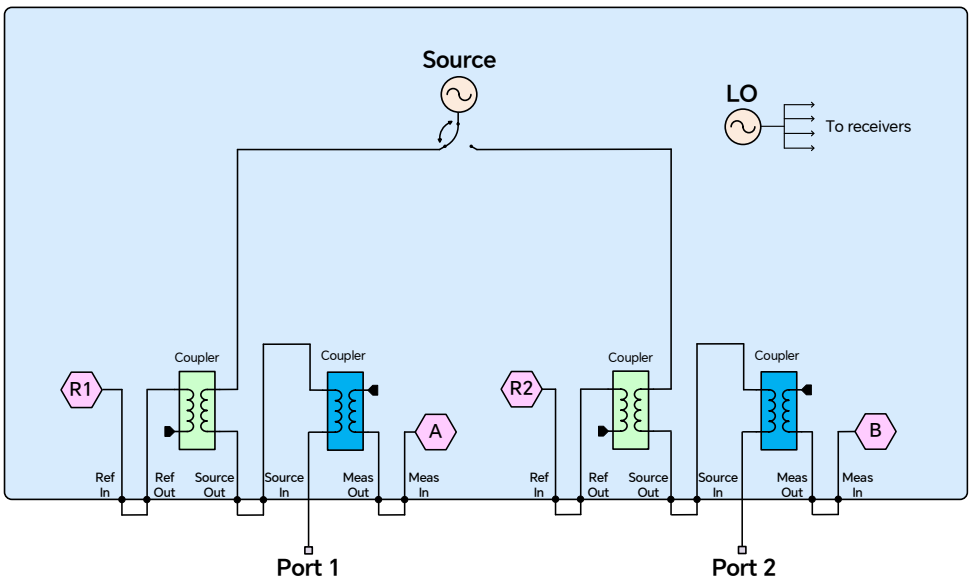
Right view

Block Diagram

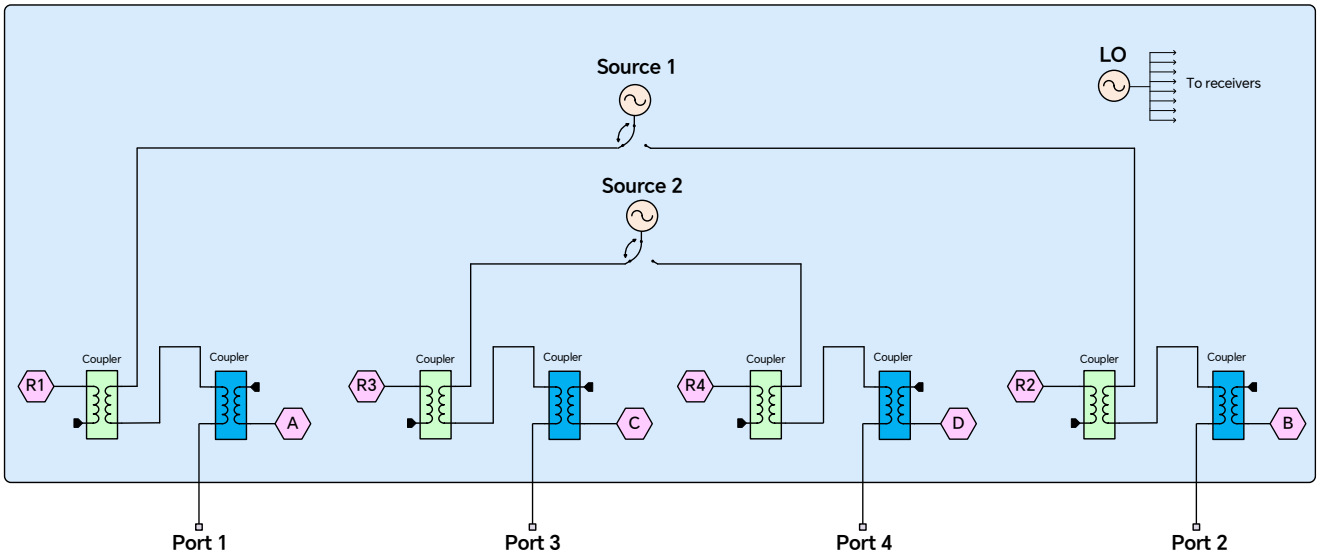




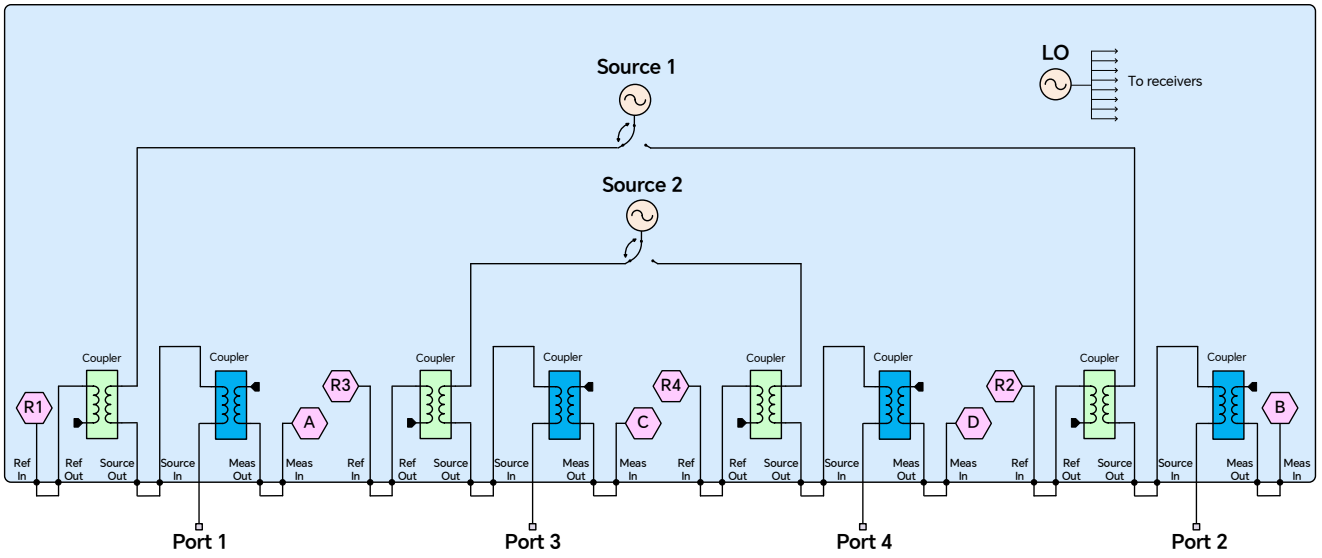
SNA6032A / SNA6022A



SNA6132A / SNA6122A



SNA6034A / SNA6024A



SNA6134A / SNA6124A

Ordering Information

Product Model	Description
SNA6034A	4 ports, 26.5G Vector Network Analyzer
SNA6032A	2 ports, 26.5G Vector Network Analyzer
SNA6024A	4 ports, 13.5G Vector Network Analyzer
SNA6022A	2 ports, 13.5G Vector Network Analyzer
SNA6134A	4 ports, 26.5G Vector Network Analyzer (Includes front panel jumper interface)
SNA6132A	2 ports, 26.5G Vector Network Analyzer (Includes front panel jumper interface)
SNA6124A	4 ports, 13.5G Vector Network Analyzer (Includes front panel jumper interface)
SNA6122A	2 ports, 13.5G Vector Network Analyzer (Includes front panel jumper interface)

Standard Accessories	Quantity
Quick-start	1
Power-cable	1
USB-cable	1
Wireless mouse	1
Certificate of Calibration	1

Option		Description	Model
Hardware option	HPR option	High-performance reference source	SNA6000-HPR
Software option	TDA option	Time-Domain analysis	SNA6000-TDA
	TDR option	Enhanced Time-Domain analysis	SNA6000-TDR
	SMM option	Scalar mixer measurement	SNA6000-SMM
	SA option	Spectrum analysis	SNA6000-SA
	PM option	Pulse measurement	SNA6000-PM
	PV option	Performance Tests	SNA6000-PV
	AFR option	Automatic Fixture Removal	SNA6000-AFR
	MT option	Material Measurement	SNA6000-MT
	GC option	Gain Compression measurement	SNA6000-GC
	VMM option	Vector mixer measurement	SNA6000-VMM

Optional Accessories	Model
SNA6000A rack mounting kit	SNA6000A-RMK
SNA6000A trolley case	CASE-S3
SEM5000A series electronic calibration (ECal) modules	SEM5000A
SSM5000A series switch matrix	SSM5000A
SSU5000A series mechanical switch	SSU5000A
N-type, Male, 50Ω Calibration Kit, DC-4.5GHz	F503ME
N-type, Female, 50Ω Calibration Kit, DC-4.5GHz	F503FE
N-type, Male, 50Ω Calibration Kit, DC-9GHz	F504MS
N-type, Female, 50Ω Calibration Kit, DC-9GHz	F504FS
N-type, Male, 50Ω Integrated Calibration Kit, DC-9GHz	Y504MS
N-type, Female, 50Ω Integrated Calibration Kit, DC-9GHz	Y504FS
N-type, Male and Female, 50Ω Calibration Kit,DC-9GHz	F504TS
N-type, Male, 50Ω Calibration Kit,DC-18GHz	F505MS
N-type, Female, 50Ω Calibration Kit,DC-18GHz	F505FS
N-type, Male and Female, 50Ω Calibration Kit,DC-18GHz	F505TS
3.5 mm, Male, 50Ω Calibration Kit, DC-4.5GHz	F603ME
3.5 mm, Female, 50Ω Calibration Kit, DC-4.5GHz	F603FE
3.5 mm, Male, 50Ω Calibration Kit, DC-9GH	F604MS
3.5 mm, Female, 50Ω Calibration Kit, DC-9GHz	F604FS
3.5 mm, Male and Female, 50Ω Calibration Kit, DC-9GHz	F604TS
3.5 mm, Male, 50Ω Integrated Calibration Kit, DC-26.5GHz	Y606MS
3.5 mm, Female, 50Ω Integrated Calibration Kit, DC-26.5GHz	Y606FS
3.5 mm, Male, 50Ω Calibration Kit, DC-26.5GHz	F606MS
3.5 mm, Female, 50Ω Calibration Kit, DC-26.5GHz	F606FS
3.5 mm, Male and Female, 50Ω Calibration Kit, DC-26.5GHz	F606TS
50Ω Waveguide calibration kit, 18-26.5GHz	KWR42A
N(M)-SMA(F) RF Cable DC~6 GHz,1000 mm	S06-NMSF-1M
N(M)-SMA(F) RF Cable DC~18 GHz,1000 mm	S18-NMSF-1M
2.9 mm(M)- 2.9 mm (F) RF Cable DC~40 GHz,1000 mm	S40-29M29F-1M
N(M)-SMA(M) RF Cable DC~18 GHz,1000 mm	N-SMA-18L
N(M)-N(M) RF Cable DC~18 GHz,1000 mm	N-N-18L
SMA(M)-SMA(M) RF Cable DC~18 GHz,1000 mm	SMA-SMA-18L
SMA(M)-SMA(M) RF Cable DC~26.5 GHz,1000 mm	SMA-SMA-26L
SMA(F)-SMA(M) RF Cable DC~26.5 GHz,1000 mm	SMAF-SMA-26L
NMD 3.5 female-NMD 3.5 Male DC-26.5 GHz,635 mm	V26-N35MN35F-25IN
NMD 3.5 female-APC 3.5 female DC-26.5 GHz,635 mm	V26-N35FA35F-25IN

Optional Accessories	Model
2.92 mm (Female) – 2.92 mm (Female) adaptor, DC ~ 40 GHz	2.92F-2.92F-40A
Type N & 3.5mm RF adaptor kit assembly	RAKA26
USB-GPIB Adapter	USB-GPIB
RF demonstration board	SNA-TB01
Torque wrench with 20.1 mm open end, for NMD connectors	W-201
Torque wrench with 19.1 mm open end, for Type N connectors	W-191
Torque wrench with 8.1 mm open end, for SMA / 2.4 mm / 3.5 mm connectors	604-W01
Adjustable Differential TDR probe DC-18 GHz	ADP-18
Adjustable Differential TDR probe DC-26.5 GHz	ADP-26
Adjustable Single-end TDR probe DC-18 GHz	ASP-18
Adjustable Single-end TDR probe DC-26.5 GHz	ASP-26

About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of electronic test & measurement instruments.

SIGLENT first began developing digital oscilloscopes independently in 2002. After more than a decade of continuous development, SIGLENT has extended its product line to include digital oscilloscopes, isolated handheld oscilloscopes, spectrum analyzers, function/arbitrary waveform generators, RF/MW signal generators, vector network analyzers, digital multimeters, DC power supplies, electronic loads and other general purpose test instrumentation. Since its first oscilloscope was launched in 2005, SIGLENT has become the fastest growing manufacturer of digital oscilloscopes. We firmly believe that today SIGLENT is the best value in electronic test & measurement.

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