Aplab GLOBAL

SA3000 Series

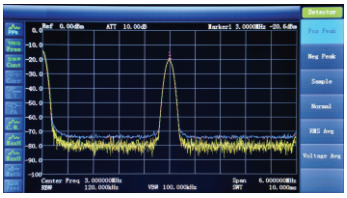
1.5GHz / 2.2GHz / 3.0GHz Spectrum Analyzers

Features

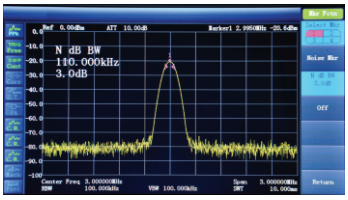
- All-digital IF technology
- Frequency Range: 9kHz to 1.5GHz / 2.2GHz / 3GHz
- DNAL: -140dBm Typ.
- Phase Noise: -80dBc / Hz (10kHz offset)
- Amplitude Resolution: ±1.0dB
- RBW: 10Hz to 1MHz, step 1-3-10
- Standard EMI Filter
- Quasi-Peak Detector
- Channel Power / Adjacent Channel Power / Occupied Bandwidth Measurement
- Tracking Generator
- 7' TFT LCD
- USB Host, USB Device, LAN, RS232

The new high-performance SA3000 Series Spectrum Analyzer were developed with all-digital IF technology to meet demanding customer requirements, its professional bench type, compact size, elegant outlook to show our well design. We provide three selectable frequency range 1.5GHz (SA3015) / 2.2GHz (SA3022) / 3.0GHz (SA3030) for users, which are high cost-effective and more flexible for users to choose the most economy models. Offering low phase noise, wide analysis bandwidth, straightforward and intuitive operation, and plenty remote communication port, the spectrum analyzer makes measurements fast and easy, can be widely used in science education, enterprise research and industry production.

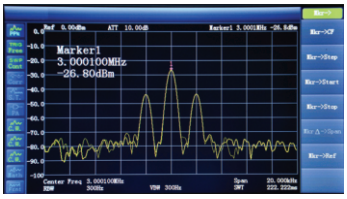
Featuring a low DANL of typ. -145dBm, distinguish two nearby signals clearly with 10Hz RBW



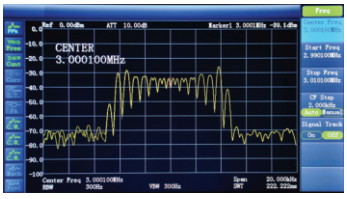
Display the spectrums when change the RBW settings with different color trace



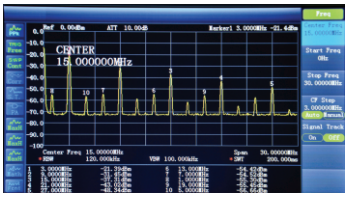
Advanced function of N dB measurement



Measurement of AM signal



Measurement of FM signal



Advanced function of marker display

Technical Specifications

	SA3015	SA3022	SA3030
Frequency			
Range	9kHz ~ 1.5GHz	9kHz ~ 2.2GHz	9kHz ~ 3.0GHz.
Resolution	1Hz.		
Internal Frequency Reference			
Frequency Reference	10MHz.		
Aging Rate	5 x 10^{-6}/year.		
Temperature Stability	<5 x 10^{-6} (20ºC ~ 30ºC).		
Frequency Readout Accuracy			
Marker Resolution	Span / (sweep points-1).		
Marker Uncertainty	±(frequency indication x frequency reference uncertainty + 1% x span + 10% x resolution bandwidth + marker resolution).		
Frequency Span			
Frequency Span Range	0Hz, 100Hz ~ 1.5GHz	0Hz, 100Hz ~ 2.2GHz	0Hz, 100Hz ~ 3.0GHz
Uncertainty	±span / (sweep points-1).		

SSB Phase Noise		
Carrier Offset		-80dBc / Hz (10kHz offset, fc=1.0GHz).
Bandwidths		
Resolution Bandwidth (-3dB)		10Hz ~ 1MHz, step 1-3-10. 200Hz, 9 kHz, 120 kHz.
RBW Accuracy		10%, nominal (RBW >1kHz) 20%, nimial (RBW ≥10Hz, sweep time >5s).
Resolution Filter Shape Factor (60dB: 3dB)		5, nominal.
Video Bandwidth (-3dB)		1Hz to 1MHz, step 1-3-10.
Amplitude Measurement		
Range		DANL to +30dBm.
Maximum Input Level		
CW RF Power		+30dBm (1.0W).
Max.Damage Level		+40dBm (10W).
Displayed Average Noise Level (DANL)		
DANL (Preamplifier Off)	100 kHz to 10 MHz	-90 dBm, typ. -110 dBm.
	10MHz to 3.0 GHz	120 dBm+6 x (f/1GHz) dB, typ. -125 dBm.
DANL (Preamplifier On)	100 kHz to 30 MHz	-90 dBm, typ. -110 dBm.
	30 MHz to 3.0 GHz	-135 dBm + 6 x (f/1GHz) dB, typ. -140 dBm.
Level Display		
Trace Detectors		Positive-peak, Negative-peak, Quasi-Peak, Sample, Standard, RMS Average, Voltage Average.
Trace Functions		Clear Write, Max Hold, Min Hold, Average, View, Blank.
Units of Level Axis		dBm, dBmV, dBµV, V, W.
Reference Level		
Range		-100 dBm to +30 dBm, step 1 dB.
Spurious		
Image Frequency		<-60 dBc.
Intermediate Frequency		<-60 dBc.
Spurious Response		<-80 dBm, typ.
Input Related Spurious	Mixer level: -30 dBm	<-60 dBc, typ.
Sweep		
Sweep Time Range	100Hz ≤Span ≤3GHz	10 ms to 3000 s.
	Span = 0 Hz	20µs to 3000s.
Sweep Time Uncertainty	100Hz ≤Span ≤3GHz	5%, nominal.
	Span=0 Hz	0.5%, nominal.
Sweep Mode		Continuous, single.
Trigger		
Trigger Source		Free, Video, External.
External Trigger Level		5 V TTL level.
Advanced Measurement		
Channel Power, Adjacent Channel Power, Occupied Bandwidth EMI		9kHz, 120kHz, 200kHz.
Tracking Generator Output		
Frequency Range		9kHz ~ 3.0GHz
Output Power		-20dBm ~ 0 dBm, step 1 dB.
Output Flatness		20MHz ~ 2.7GHz ±3dB 20MHz ~ 2.2GHz ±2dB 20MHz ~ 1.5GHz ±2dB
General Characteristic		
Interface		USB Host, USB Device, LAN, RS232.
Display		7 inch TFT LCD.
Power Supply	Input Voltage	AC100V to 240V.
	Frequency	45Hz to 440Hz.
	Power Consumption	35W.
Environment	Temperature	5ºC to 40ºC.
Dimension		364 (W) x 154 (H) x 327 (L) mm.
Weight		6 Kg. approx.

Aplab Test & Measurement Instruments Division

Aplab Limited, A-5, Wagle Estate, Thane 400 604. India. Tel. : 91-22-67395555, 25821861 Fax : 25823137 Email : tmisales@aplab.com

•AGRA •AHMEDABAD •BANGALORE •CHANDIGARH •CHENNAI •COIMBATORE •INDORE •JAIPUR •KOLKATA •LUCKNOW •MUMBAI •NEW DELHI •PUNE •SECUNDERABAD •THIRUVANANTHAPURAM