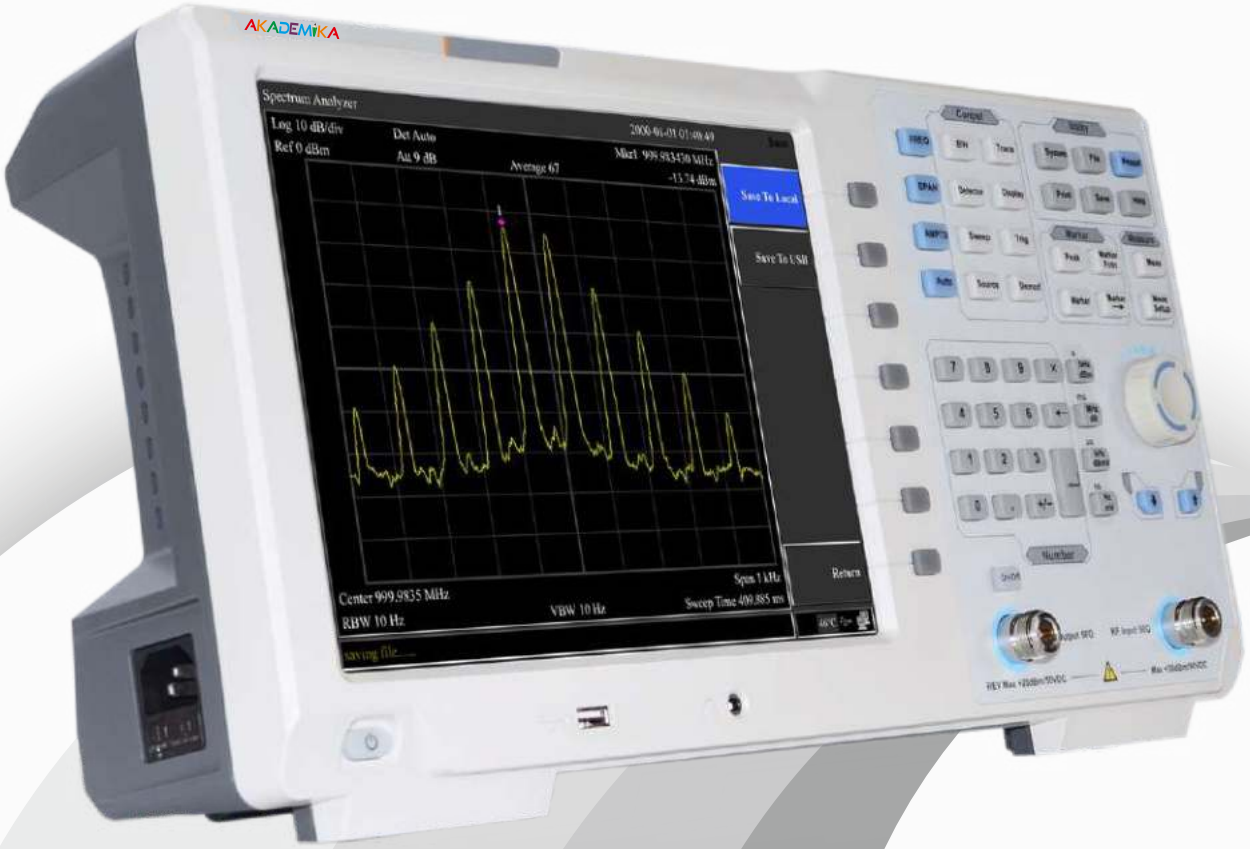
SA3600TG

Spectrum Analyzer

AKADEMIKA

- Frequency Range from 9kHz up to 3.6 Ghz
- -160 dBm Displayed Average Noise Level
- Phase Noise -82dBc/Hz @1Gz and offset at 10 Khz
- Total Amplitude Accuracy <1.5dB
- 10Hz Minimum Resolution Bandwidth (RBW)
- EMI Pre-compliance Test Kit (optional)
- 3.6 GHz Tracking Generator
- 10.4 inches display



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AKADEMIKA'S SA3600TG series of spectrum analyzers have a frequency range of 9 kHz to 3.6 GHz. With their light weight, small size, and friendly user interface, the SA3600TG offer a bright easy to read display, powerful and reliable automatic measurements, and plenty of powerful features. Applications include broadcast monitoring/evaluation, site surveying, EMI pre-compliance, research and development, education, production, and maintenance.

TECHNICAL SPECIFICATION

Frequency	
Range	9 kHz ~ 3.6 GHz
Resolution	1 Hz
Frequency Span	
Range	0 Hz, 100Hz to maximum frequency of device
Accuracy	± 0 span/ (swept points -1)
Internal reference	
Reference Frequency	10.000000 MHz
Frequency Counter	
Resolution	1 Hz，10 Hz，100 Hz，1 kHz
Accuracy	±（marker freq × freq reference uncertainty + counter resolution）
Bandwidth	
Resolution Bandwidth (-3 dB)	10Hz to 500kHz（in 1 to 10 sequence）， 1MHz，3MHz
Resolution Filter Shape Factor	<5：1 nominal（Digital implement, similar to Gauss Pattern）
Accuracy	<5% nominal
Video Bandwidth (-3 dB)	10Hz to 3MHz
Amplitude and Electric Level	
Amplitude Measurement Range	DANL to +20 dBm， close the preamplifier
Reference Electric Level	-80 dBm to +30 dBm，0.1dBm steps
Preamplifier	20 dB，nominal，9 kHz~1.5 GHz
Input Attenuator Range	0~40 dB，3 dB steps , 10~50Db, 1Db steps
Max Input DC Voltage	50 VDC
Max Continuous Power	30dBm，average continuous power
Displayed Average Noise Level (DANL)	
Preamp off	Input attenuation 0dB 1Hz resolution bandwidth, RBW = 10Hz Normalization to 1 Hz
	1MHz ~ 10MHz - 130 dBm (typical)
	10MHz ~ 1GHz - 130 dBm (typical)
	1GHz ~ 3.6GHz - 148 dBm (typical)
Preamp on	1MHz ~ 10 MHz -150dBm (typical)
	10MHz ~ 1 GHz -150dBm (typical)
	1GHz ~ 3.6 GHz -148dBm (typical)
Phase Noise	
Phase Noise	<-82 dBc/ Hz @10 kHz offset
	<-100 dBc/ Hz @100 kHz offset
	<-110 dBc/ Hz @10 MHz offset

Level Display Range	
Log Scale Coordinate	1dB ~255dB
Linear Scale Coordinate	0 to reference level
Level Unit	dBm, dBuW, dBpW, dBmV, dBuV, W,V
Points	201~1001
Number of Traces	5
Detectors	Positive-peak, negative-peak, sample, normal, RMS
Trace Functions	Clear write, Max Hold, Min Hold, View, Blank, Average
Frequency Response	
	20□ ~30□，30%~70% relative humidity, 10 dB input attenuation, reference 50 MHz
Preamp off	±0.8 dB；±0.4 db. typical
Preamp on	±0.9 dB；±0.5 db. typical
Accuracy	
Input Attenuation Switching Uncertainty	20℃ ~30℃， fc=50 MHz，Preamplifier Off， 20dB RF attenuation， input signal 0~40 dB ±0.5 dB
Absolute Amplitude Uncertainty	20℃ ~30℃， fc=50 MHz，Span = 200kHz , RBW=1 kHz，VBW=1 kHz， Peak detector, 10 dB RF attenuation， Preamplifier Off ±0.4 dB，input signal= -20dBm Preamplifier On ±0.5 dB, input signal= -40dBm
VSWR	input 10 dB RF attenuation，1 MHz~3.6GHz, <1.5, nominal
Sweep Time and Triggering	
Span Range	100Hz≤SPAN≤3GHz 10ms to 3000s, None-zero Span 10ms to 3000s zero sweep width 1ms to 3000s, Zero Span 10ms to 3000s
Mode	Continue, single
Trigger	Free run, video, external
Tracking generator	
Output Frequency Range	100 kHz~3.6 GHz (tracking generator) 35MHz~ 3.6GHz (Signal generator)
Output Power Level Range	-30 dBm~0 dBm
Output Power Level Resolution	1dB
Output Flatness	±3 dB
Maximum Safe Reverse Level	Average total power：30 dBm，DC : ±50 VDC
General Technical Specification	
Display	TFT LCD，10.4 inches, 800 x 600 pixels
Front Panel RF Input Connector	50 Ω，N-type female
Front Panel Track Generator Output	50 Ω，N-type female
Communication Port	USB HOST, USB DEVICE, LAN, earphone port, REF and VGA
Power	100V~240V 50/60Hz
Accessories	Power Chord, CD-ROM, User Manual, N-SMA Adapter - 2nos

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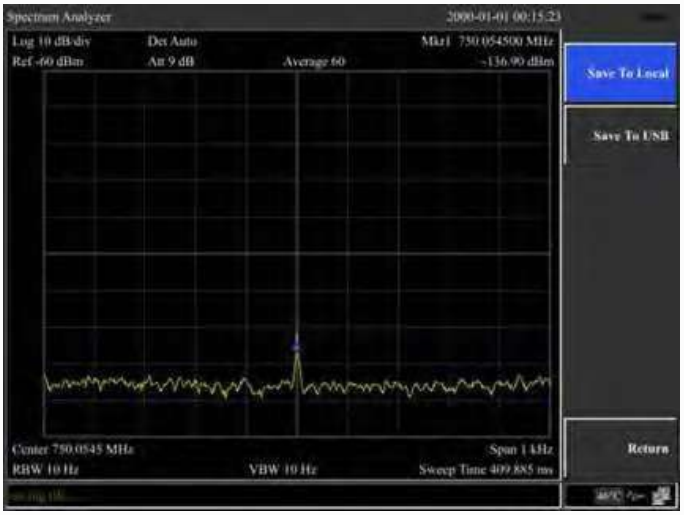
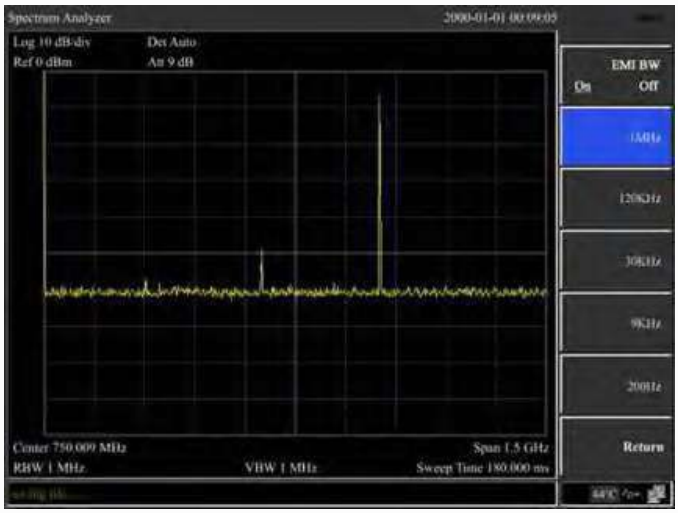
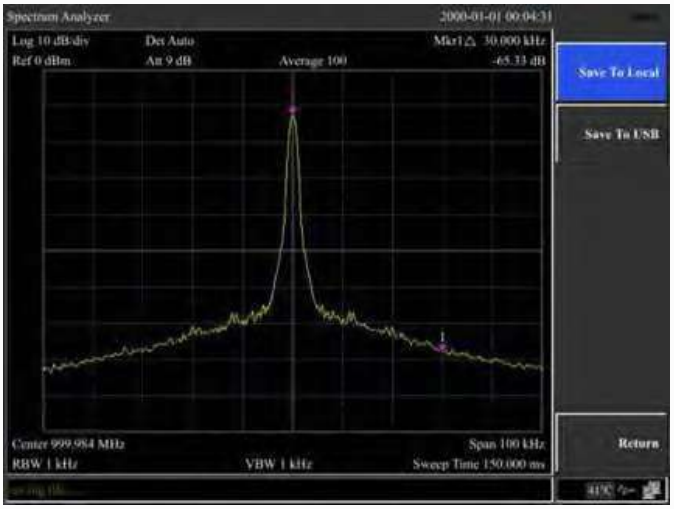
1. 10 Hz Minimum Resolution Bandwidth (RBW)
Digital IF technology offers a minimum bandwidth of 10Hz, allowing excellent signal resolution when separation of closely spaced signals
is required.



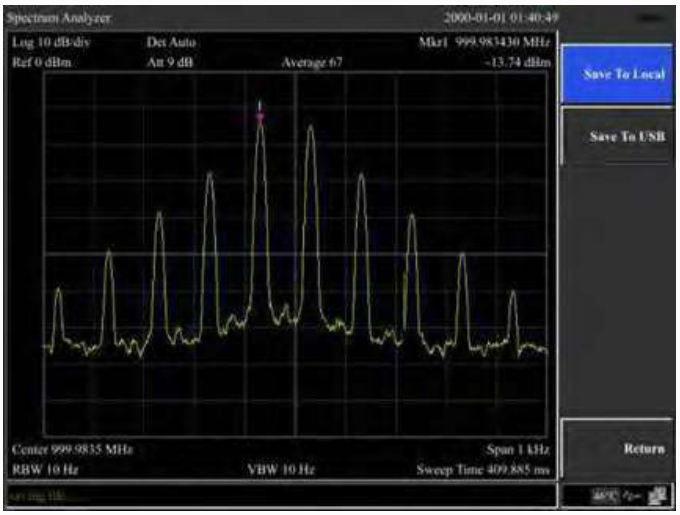
2. Phase noise: <-80 dBc/Hz @1 GHz @ 30 KHz offset
Excellent phase noise performance - <-80dBc/Hz @30KHz enables users to evaluate most synthesizers and signal generators.



3. EMI filter and peak detector kit
Akademika offers an EMI filter and peak detector kit to help evaluating EMI levels for pre-compliance testing.



4. Measure -130dB small signal at 10Hz RBW
Offers a DANL (displayed average noise level) down to -130 dBm, which is able to measure smaller signals.



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