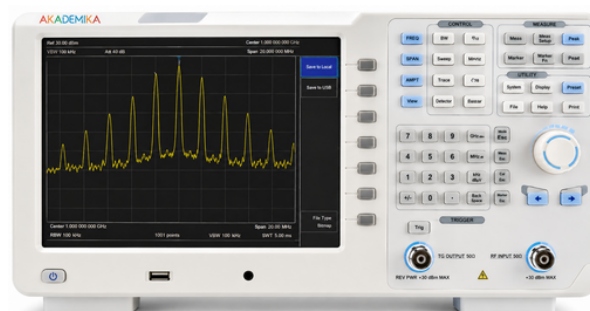


SA3600TG

3GHz Spectrum Analyser with Tracking Generator



FEATURES

- SA3600TG series of spectrum analyzers have a frequency range of 9 kHz to 3.6 GHz.
- It is light weight, small size, and friendly user interface,
- 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.
- 10.4 inches display

SPECIFICATIONS

Frequency

- Range - 9 kHz ~ 3.6 GHz
- Resolution - 1Hz

Frequency Span

- Range - 0 Hz, 100Hz to maximum frequency of device

Internal reference

- Reference Frequency - 10.000000 MHz

Frequency Counter

- Resolution 1Hz, 10Hz, 100Hz, 1kHz
- Accuracy (marker freq $\times \pm$ freq reference uncertainty + counter resolution)

Bandwidth

- Resolution Bandwidth (-3 dB): 10Hz to 500kHz (in 1 to 10), 1MHz, 3MHz
- Resolution Filter Shape Factor : 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
- Max Input DC Voltage : 50 VDC

- Input Attenuator Range : 0~40 dB, 3 dB steps , 10~50dB 1dB steps
- 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

- Preamp off : ± 0.8 dB : ± 0.4 dB typical
- Preamp on: ± 0.9 dB : ± 0.5 dB typical
- 20°C ~30°C, 30%~70% relative humidity, 10 dB input attenuation, reference 50 MHz

Accuracy

- Input Attenuation Switching Uncertainty : 20°C ~30°C, $f_c=50$ MHz, Preamplifier Off, 20dB RF attenuation, input signal 0~40 dB ± 0.5 dB
- Absolute Amplitude Uncertainty : 20°C~30°C, $f_c=50$ MHz Span = 200kHz, RBW=1 kHz, VBW=1 kHz, Peak detector, 10 dB RF attenuatio, Preamplifier Off ± 0.4 dB,

input signal = -20dBm Preamplifier On ± 0.5 dB, input signal = -40dBm

- VSWR : input 10 dB, 1RF attenuation 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 : -30dBm~0dBm
- Output Power Level Resolution : 1dB
- Output Flatness : ± 3 dB
- Maximum Safe Reverse Level : Average total power : 30 dBm, DC : ± 50 VDC

General Technical Specification

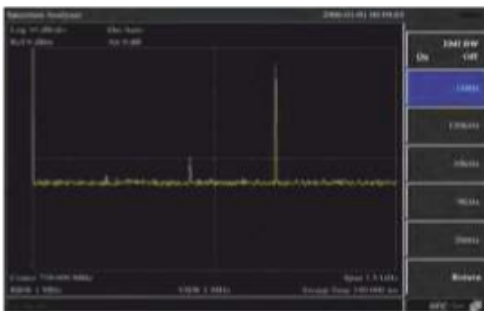
- Display : TFT LCD, 10.4 inches, 800 x 600 pixels
- Front Panel RF Input Connector : 50 Ω , N-type female
- Front Panel Track Generator Output : 50 Ω , N-type female
- Communication Port : USB HOST, USB DEVICE, LAN, earphone port, REF and VGA
- Power : 100V~240V 50/60Hz
- ACCESSORIES : User Manual, NSMA Adapter

ACCESSORIES

- Power Cord - 1 No.
- USB Cable - 1 No.
- N Type SMA Cable 2 No.

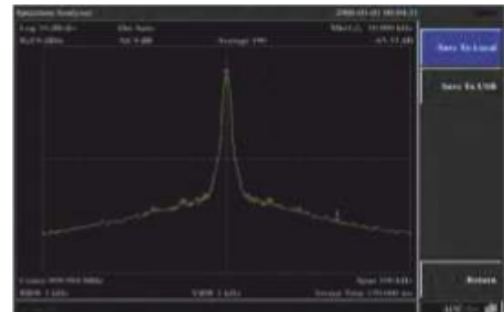
KEY MEASUREMENT PARAMETERS

1) 10 Hz Minimum Resolution Bandwidth (RBW)



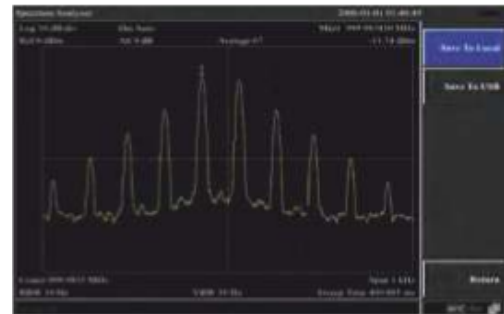
- Digital IF technology offers a minimum bandwidth of 10Hz, allowing excellent signal resolution when separation of closely spaced signals is required

2) Phase noise: <-80 dBc/Hz @1 GHz @ 30 KHz offset



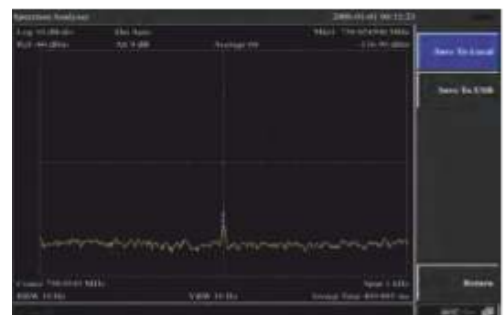
- Excellent phase noise performance - <-80dBc/Hz @30KHz enables users to evaluate most synthesizers and signal generators.

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.