AD INSTRUMENTS

Handheld Spectrum Analyzer (100kHz~3GHz)

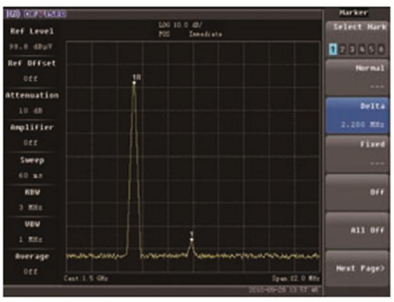
Introduction

AD8000A handheld spectrum analyzer is an ideal testing instrument for engineer working at the wireless base station for 2G/3G/4G, WiFi and broadcast installation and maintenance.

AD8000A covers frequency range: 100 kHz ~ 3000 MHz and has tracking generator option.

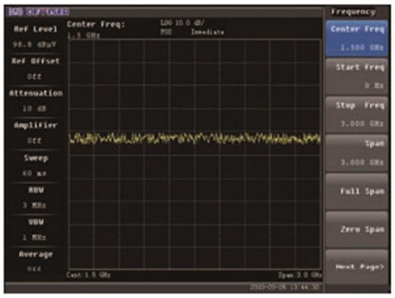
Large Dynamic Range Spectrum Analysis

AD8000 series covers wide frequency range: 100 kHz ~3000 MHz and provide +15dBm IP3 and lower noise.



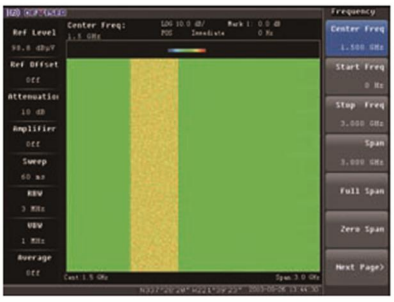
Fast Sweep Speed

AD8000A provides 1 ms minimum sweep time to detect any complex interference signals.

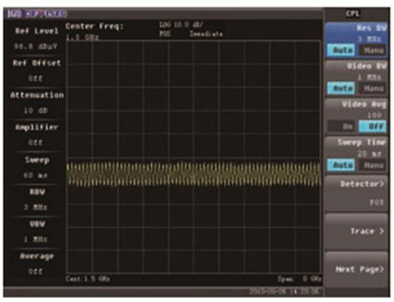


Interference Signals Analysis

AD8000A provides features such as signal strength indication, spectrogram and fluorogram to find out interference signals.

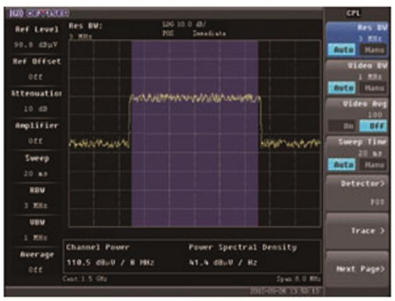


AD8000A supports FM/AM demodulation and then distinguishes noise through speaker or earphone to locate interference signals.



RF Signals Analysis Function

AD8000A provides one-button measurement for channel power, OBW and adjacent channel power.



GPS Receiver Option

GPS receiver option provides location (longitude, latitude, altitude) and Universal Time (UT) information. For the AD8000A series, all measurement results can be saved with location and time information.

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Specifications

Frequency	
Frequency Range	100kHz ~ 3000MHz
Frequency Reference	
Aging	± 1 ppm per year
Stability	± 1 ppm
Temperature Stability	± 2 ppm (0 to +50°C)
Frequency Resolution	10Hz
Marker Count Accuracy (S/N 25 dB, RBW/span 0.01)	
Accuracy	±2 ppm, ±1 count
Counter Resolution	1 Hz
Frequency Span	
Range	0 Hz (zero span), 1kHz to 3000 MHz
Sweep and Trigger	
Range	1mSec to 250 sec (span > 1 kHz) 20 µSec to 500 sec (span = 0 Hz)
Accuracy	< ± 0.2%
Trigger Type	free run, single, video, TV
Resolution Bandwidth	
Range	1 kHz to 3 MHz in 1-3-10 sequence 30 Hz, 100 Hz, and 300 Hz (optional)
Bandwidth Accuracy	< ± 10%
Selectivity (60 dB/3 dB Bandwidth Ratio)	< 5:1
Video Bandwidth	
Range	10 Hz to 1 MHz in 1-3-10 sequence
Stability	
Phase Noise	< -105dBc/Hz @ 100 kHz offset from CW signal < -90 dBc/Hz @ 10 kHz offset from CW signal < -85 dBc/Hz @ 1 kHz offset from CW signal
Amplitude	
Measurement Range	displayed average noise level to furthest safe input level
Input Attenuator	
Range	0dB ~ 50dB
Step	5dB
Internal Preamplifier	
Frequency Range	1 MHz to 3000 MHz
Gain	15 dB
Noise Figure	4 dB
Max Safe Input	+30dBm (peak power/input attenuation >15 dB), 100 VDC
Displayed Average Noise Level (Input Terminated, 0 dB Attenuator, RBW=30kHz, VBW=100Hz, Sample Detector)	
preamplifier OFF (typical)	< -105 dBm 1MHz ~ 1GHz < -95 dBm 1GHz ~ 3GHz
preamplifier ON (typical)	< -115 dBm 1MHz ~ 1GHz < -110 dBm 1GHz ~ 3GHz
Spurious Responses	
Second Harmonic	< -68dBc for -20 dBm signal at input mixer
TOI	>15dBm (two -20 dBm signals at input mixer with > 1 MHz separation and att=0)
Residual Responses (Input Terminated and 0 dB Attenuator)	< -85 dBm 1 MHz to 3000 MHz
Display Range	
Log Scale	0.1 to 1 dB/div in 0.1 dB step 1 to 40 dB/div in 1 dB step
Linear Scale	10 divisions
Scale Units	dBm, dBmV, dBµV, mV
Marker Readout Resolution	0.03 dB for log scale 0.03% of ref level for linear scale
Traces	3 traces
Trace Detector	sample, posi-peak, neg-peak, normal, average
Marker Functions	peak, next peak, marker to center, marker to ref, etc.
Marker Display	normal, delta, fix marker & frequency counter
Reference Level	-130 dBm to +30 dBm
Level Accuracy	< ± 1 dB @ +25°C (typical)
Input/Output	
RF Input	
Input	N connector
Input Impedance	50Ω
USB Port	USB 2.0 port and USB 1.1 port
LAN Port	10M/100M RJ45
TG Out	
Output	N connector
Frequency Range	10 MHz to 3000 MHz
Phase Noise	< -70 dBc/Hz @ 10 kHz
Level Range	-10 to -40 dBm
Level Accuracy	± 2 dB
Harmonic Distortion	< -20 dBc
Non-Harmonic Distortion	< -30 dBc
Output Impedance	50Ω
Power Specifications	
Battery Type	11.1V @ 5Ah Lithium-Ion
Charge Time	< 5 hours
Operating Time	> 3 hours > 2.5 hours with tracking generator
AC Adapter	19 VDC @ 3.42A
Other Specifications	
Temperature, Operating	-10°C to +55°C
Temperature, Storage	-30°C to +80°C
Dimensions (W x H x D)	258 mm x 173 mm x 74 mm
Weight (With Battery)	<3 kg
Display Type	6.5 inch TFT color LCD
Display Resolution	640 X 480 pixels
Language	English