E8000A
Handheld Spectrum Analyzer

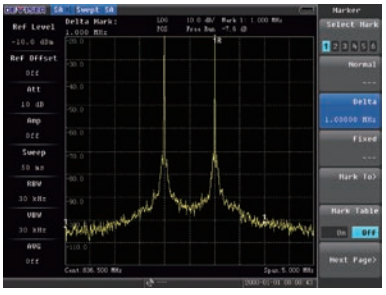
Overview

E8000A 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.

E8000A covers frequency range: 9 kHz ~ 3000 MHz and has tracking generator option.

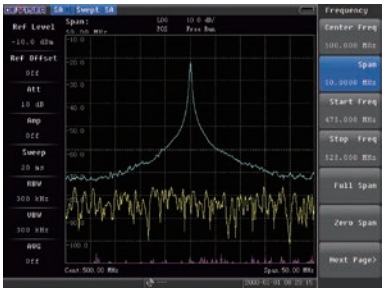
Large Dynamic Range Spectrum Analysis

E8000A series covers wide frequency range: 9 kHz ~3000 MHz and provide +15 dBm IP3 and lower noise.



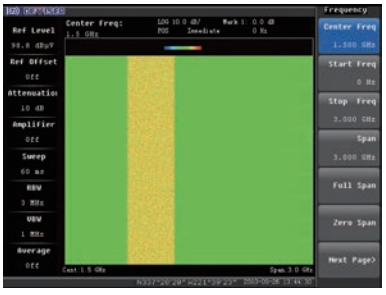
Fast Sweep Speed

E8000A provides 1 ms minimum sweep time to detect any complex interference signals.

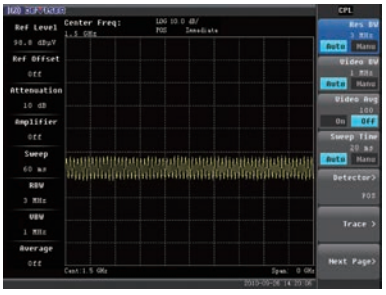


Interference Signals Analysis

E8000A provides features such as signal strength indication, spectrogram and fluorogram to find out interference signals.

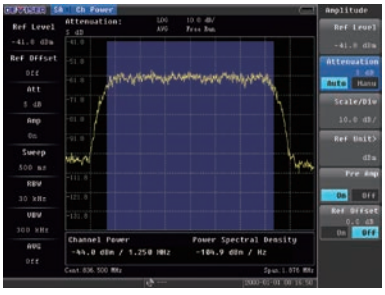


E8000A supports FM/AM demodulation and then distinguishes noise.



RF Signals Analysis Function

E8000A 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 E8000A series, all measurement results can be saved with location and time information.

Specifications

Frequency	
Frequency Range	9 kHz ~ 3000 MHz
Frequency Reference	
Aging	± 1 ppm per year
Stability	± 1 ppm
Temperature Stability	± 2 ppm (0 to +50ºC)
Frequency Resolution	10 Hz
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), 1 kHz to 3000 MHz
Sweep and Trigger	
Range	1 mSec 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 Hz to 3 MHz in 1-3-10 sequence
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	< -105 dBc/Hz @ 100 kHz offset from CW signal < -95 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	0 dB ~ 55 dB
Step	5 dB
Internal Preamplifier	
Frequency Range	1 MHz to 3000 MHz
Gain	15 dB
Max. Safe Input	+30 dBm (peak power/input attenuation >15 dB), 100 VDC
Displayed Average Noise Level (Input Terminated, 0 dB Attenuator, RBW=100 Hz, VBW=3 Hz, Sample Detector)	
Pre-amplifier OFF (Typical)	< -130 dBm 1 MHz ~ 1 GHz < -126 dBm 1 GHz ~ 3 GHz
Pre-amplifier ON (Typical)	< -145 dBm 1 MHz ~ 1 GHz < -141 dBm 1 GHz ~ 3 GHz
Spurious Responses	
Second Harmonic	< -70 dBc for -20 dBm signal at input mixer
TOI	>+15 dBm (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	6 traces
Trace Detector	Sample, Posi-peak, Neg-peak, Normal, Average, R.M.S, Quasi-peak
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 @ +25ºC (Typical)
Input/Output	
RF Input	
Input	N connector
Input Impedance	50 Ω
USB Port	USB 2.0 port and USB 1.1 port
LAN Port	10 M / 100 M RJ45
TG Out	
Output	N connector
Frequency Range	10 MHz to 3000 MHz
Phase Noise	< -70 dBc/Hz @ 10 kHz
Level Range	-30 dBm to 0 dBm
Level Resolution	1 dB
Level Accuracy	± 2 dB
Harmonic Distortion	< -20 dBc
Non-Harmonic Distortion	< -30 dBc
Output Impedance	50 Ω
Power Specifications	
Battery Type	11.1V @ 5.2Ah Lithium-Ion
Charge Time	< 5 Hours
Operating Time	> 3.5 Hours
AC Adapter	19 V DC @ 3.42 A
Other Specifications	
Operating Temperature	-10 ºC to +55 ºC
Storage Temperature	-30 ºC to +80 ºC
Dimension (W x H x D)	258 mm x 173 mm x 74 mm
Weight (With Battery)	<2.2 kg
Display Type	6.5 inch TFT color LCD
Display Resolution	640 x 480 pixels
Language	Chinese, English