

# E8400/E8600B SpectrumPROFILER™ Spectrum & Signal Analyzer

## Key Benefits

- Performs comprehensive signal analysis for complete site profile and monitoring of signal environment
- Quickly identifies, locates, and maps signal interference
- High-speed analyzer measures 30 GHz/s @ 7.8 kHz RBW
- Frequency range 9 kHz ~ 6.0 GHz
- Rugged, lightweight design built to withstand harsh environments
- Functions include occupied bandwidth, channel power, ACLR
- Dual-spectrum and spectrogram measurements
- Verifies RF transmission
- 10.1" capacitive touchscreen for easy control & visibility in all lighting conditions
- Numerous data transfer options: LAN, USB, & more



Verify RF Transmission.  
Identify and locate signal interference.  
Confirm coverage.

Today's wireless spectrum is shared by a host of communications systems and services, including mobile communications, radio, wireless local-area networks, and digital video broadcasting. The same spectrum is shared by licensed and unlicensed transmitters alike, often hampered by impairments like reflection and fading. The result is a signal environment of extreme complexity, which must be cleared and routinely monitored in order to maximize service performance.

Designed specifically for wireless communications field engineers and technicians, the E8400B/E8600B SpectrumPROFILER provides all the measurement functions and performance specs you need to accurately characterize the signal environment. It can detect, locate, identify, and clear signal interference, all in one lightweight handheld instrument.

## Standard Measurements

- Spectrum analysis
- Channel power
- Occupied bandwidth (OBW)
- Adjacent channel leakage ratio (ACLR)
- Field strength
- FM/AM

## Optional Measurements

- Interference analyzer
- Indoor and outdoor coverage mapping
- High-precision power meter
- Tracking generator
- GPS
- FDD-TLE analysis and air interface testing
- TDD-TLE analysis and air interface testing

## Specifications

Spectrum Analysis		
Frequency range	E8400B	9 kHz ~ 4.4 GHz
	E8600B	9 kHz ~ 6.0 GHz
Resolution	1 Hz	
Aging	< ±1.0 ppm/year	
Frequency span	1 kHz ~ 6 GHz; zero span	
Resolution bandwidth	1 Hz ~ 3 MHz	
Video bandwidth	1 Hz ~ 3 MHz	
Spectral purity / phase noise	1 kHz offset	-90 dBc / Hz
	10 kHz offset	-100 dBc / Hz
	100 kHz offset	-105 dBc / Hz
Dynamic range	>100 dB	
Measurement range	DANL to maximum safe input level	
RF max input	+30 dBm peak (typical); 50 VDC (>15 dB atten.)	
Amplitude accuracy	≤ ±1.0 dB	
Attenuation range	0 ~ 55 dB in 1-dB steps	
Displayed average noise level* (DANL)	Typical, preamp on	≤ -160 dBm (1 MHz ~ 1 GHz) ≤ -154 dBm (1 GHz ~ 3 GHz)
	Typical, preamp off	≤ -148 dBm (1 MHz ~ 1 GHz) ≤ -138 dBm (1 GHz ~ 3 GHz)
General		
Display	8.4" 800 x 600 TFT LCD touchscreen	
RF input	Type-N (f), 50Ω	
Data transfer	2x USB 2.0 ports; 1x Ethernet LAN 10M / 100M port	
Data storage	1 GB (>2000 saved measurement files) internal HD	
Battery	Li-ion, 11.1V / 5.2Ah	
Adapter	19V / 3.42Ah; 100 ~ 240 VAC; 50 ~ 60 Hz	
Operating time	>4 hours' continuous operation; 8 hours idle	
EMC compliance	IEC/EN 61326-1:2006	
Shock	Mil-PRF-28800F Class 2	
Operating temperature	-10 ~ +55°C	
Storage temperature	-40 ~ +80°C	
Dimensions (LxWxH)	10.9" x 8.5" x 3.4" (278mm x 217mm x 87mm)	
Weight	6.6 lbs (3 kg)	
Standard Accessories		
Rechargeable Li-ion battery (11.1V, 5.2Ah)		
AC/DC adapter (19V, 3.42Ah)		
Vehicle plug-in charger		
Vinyl carrying case		
Companion software CD & user manual		

## Optional Accessories

RF test port cable, armored, 1.5m, N(m) to N(f), 6 GHz, 50Ω
RF test port cable, armored, 1.5m, N(m) to 7/16 DIN(f), 6 GHz, 50Ω
RF test port cable, armored, 1.5m, N(m) to 7/16 DIN(m), 6 GHz, 50Ω
RF test port cable, armored, 3.0m, N(m) to 7/16 DIN(f), 6 GHz, 50Ω
RF test port cable, armored, 3.0m, N(m) to 7/16 DIN(m), 6 GHz, 50Ω

## Precision Adapters

Adapter kit (PNMDM, PNFD, PNMF, PNDF, PDFDF, PDFDM 90°), 6 GHz, 50Ω
Precision adapter, N(m) to N(m), DC to 18 GHz, 50Ω
Precision adapter, N(f) to N(f), DC to 18 GHz, 50Ω
Precision adapter, N(f) to 7/16 DIN (m), DC to 6 GHz, 50Ω
Precision adapter, N(f) to 7/16 DIN (f), DC to 6 GHz, 50Ω
Precision adapter, N(f) to SMA(f), DC to 6 GHz, 50Ω

## Attenuators

10W, 6dB, DC-6 GHz, N(f) to N(m)
50W, 30dB, DC-6 GHz, N(f) to N(m)
100W, 40dB, Bi-directional, DC-18 GHz, N(f) to N(m)

## Directional Antennas

806-960 MHz, N(f), 10 dBi, Yagi
822-900 MHz, N(f), 10 dBi, Yagi
824-960 MHz, N(f), 10 dBi, Yagi
885-970 MHz, N(f), 10 dBi, Yagi
1710-1880 MHz, N(f), 10 dBi, Yagi
1850-1990 MHz, N(f), 10 dBi, Yagi
1920-2170 MHz, N(f), 10 dB, Yagi
2400-2500 MHz, N(f), 10 dBi, Yagi
9 kHz to 20 MHz, log periodic
20 MHz to 200 MHz, log periodic
200 MHz to 500 MHz, log periodic
500 MHz to 3 GHz, log periodic

## Portable Antennas

470-860 MHz, SMA(m), 50Ω
806-866 MHz, SMA(m), 50Ω
870-960 MHz, SMA(m), 50Ω
1710 to 1880 MHz, SMA(m), 50Ω
1850 to 1990 MHz, SMA(m), 50Ω
1920 to 2170 MHz, SMA(m), 50Ω
2400 to 2500 MHz, SMA(m), 50Ω
5725 to 5875 MHz, SMA(m), 50Ω

## Power Sensors

In-line Bi-directional high power sensor, 300 MHz ~ 4 GHz, 2mW ~ 150W, N(f) 50Ω
Terminal power sensor