



AirMagnet Spectrum Analyzer

AN AIRMAGNET MOBILITY SOLUTION



Professional wireless networks depend on the presence of a strong reliable physical layer as the basis of communication. This fundamental requirement is a challenge for Wi-Fi networks, which must share the 2.4 GHz and 5 GHz spectrum with a variety of potentially interfering technologies. The AirMagnet Spectrum Analyzer solves this problem with an intuitive solution that allows IT staff to quickly analyze the local RF environment and identify specific sources of interference and their physical locations. The Spectrum Analyzer truly rounds out the AirMagnet Mobility Suite with the ability to integrate with key products—Survey PRO and Laptop Analyzer PRO—at critical stages of WLAN planning and deployment when Layer 1 analysis is needed most.

RF/WLAN ANALYSIS AND TROUBLESHOOTING

Automatically Identifies RF Emitters by Name (Bluetooth, Microwaves, etc.)

Physically Locate Interfering Devices

Diagnostic Views with Plots for FFT, Duty Cycle, Swept Spectrogram and More

IT User-Friendly Interface

Covers all Wi-Fi Bands Worldwide

Runs on any Windows Vista, XP or 2000 Notebook Computer



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AirMagnet Spectrum Analyzer

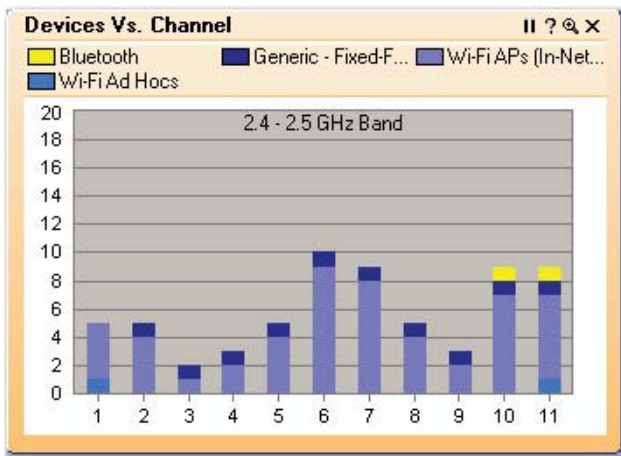
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1. The AirMagnet Spectrum Analyzer runs on any Notebook Computer with Windows Vista, XP, or 2000 (Service Pack 4 or higher) operating systems (See product facts on last page for more details).
2. At the core of the Spectrum Analyzer is a unique wireless chipset designed to read RF information that typical Wi-Fi cards are unable to see. This empowers the AirMagnet Spectrum Analyzer with a unique set of capabilities.

IT User-Friendly Interface

Historically RF spectrum analysis tools have been overly complex and unusable—requiring months or even years of training to use correctly. The AirMagnet Spectrum Analyzer breaks this mold by delivering rapid, accurate results on a standard computing platform, making it possible for network or IT managers to solve issues in their Wi-Fi environment quickly and easily.



Device vs. Channel

Spectrum Fingerprinting

The AirMagnet Spectrum Analyzer uses patented spectral fingerprinting techniques to measure, analyze, and display critical spectrum events and log all interfering devices in real-time. Devices and other sources of interference are displayed by name for quick and easy identification. AirMagnet Spectrum Analyzer identifies RF emitters in the 2.4 - 2.5 GHz range (802.11 b/g or ISM band), and the 4.9 - 5.9 GHz (802.11a, Public Safety band), and classifies them for you including:

- ▶ Bluetooth devices
- ▶ 2.4 GHz Cordless Phones
- ▶ Analog / Video
- ▶ Microwave
- ▶ Burst/Fixed Frequency



Device Finder

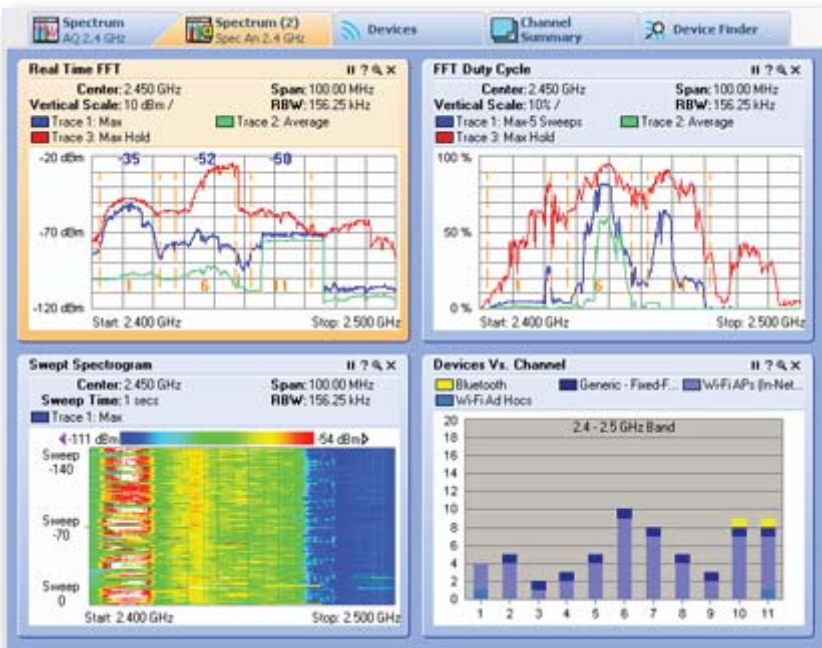
Device Finder

Locate interfering devices quickly and easily. Solve performance problems on-the-fly, anywhere in the enterprise.

Displays Devices by Channel

Analyzing interferences in relation to channels helps IT staff to make adjustments to network settings, which sometimes works to improve end user performance. Combined with other analytics that the Spectrum Analyzer provides, this information helps paint a complete picture of the impact the current RF environment is having on your Wi-Fi network.

Rich Set of Intuitive RF Visualization



Customized Desktop Displaying Various Plots/Charts

View Customized Charts

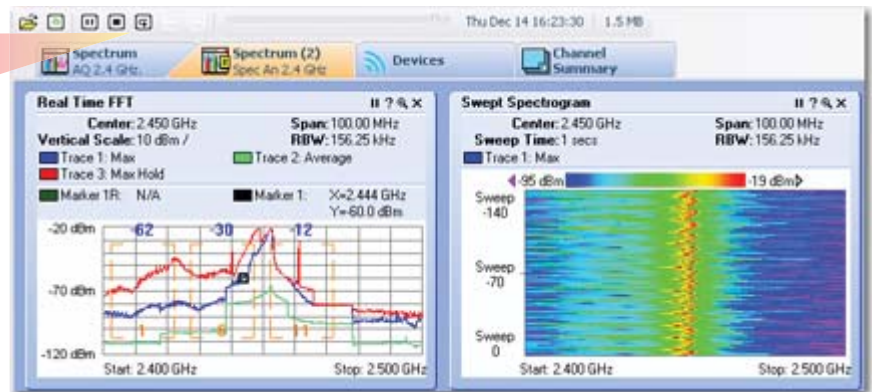
Users can build completely customized diagnostic views from twelve available charts and plots. Each plot can be further customized to display only the specific data that the user requires. Available plots include:

- ▶ Real-time FFT Plot
- ▶ FFT Duty Cycle Plot
- ▶ Swept Spectrogram Plot
- ▶ Power vs. Freq Plot
- ▶ Power vs. Time Plot
- ▶ Active Device Chart
- ▶ Devices vs. Channel Chart
- ▶ Devices vs. Time Chart
- ▶ Channel Utilization Chart
- ▶ Channel Utilization vs. Time Chart
- ▶ Interference vs. Power Chart
- ▶ Signal-to-Noise Ratio Chart

Session Record and Playback



Users can save spectrum scans and play them back for future analysis. Files can be saved and shared between users for collaborative analysis. The Instant Replay feature allows users to review the most recent spectrum information and play it back, as if it were being viewed live for the first time, without interrupting the current Live Capture session.



Live Session Recording

Integrates with Survey PRO and Laptop Analyzer PRO

The Spectrum Analyzer integrates with: (1) AirMagnet's Survey PRO solution to provide more sophisticated wireless LAN design; and (2) Laptop Analyzer PRO to provide the most complete picture of overall radio frequency (RF) quality by accounting for both the network-level and physical aspects of interference. Spectrum Analyzer is also available as an integrated part of AirMagnet's Enterprise Smart-Edge Sensor architecture for real-time, remote insight into Layer 1 of your wireless LANs.

Product Facts

Product	Part Number
AirMagnet Spectrum Analyzer	A4030
Spectrum - Survey PRO Bundle	A1358
Spectrum - Laptop Analyzer PRO Bundle	A1360
WiFi/RF Bundle (Spectrum/Laptop/Survey)*	A1356
Expert Bundle (Spectrum/Laptop/Survey/Planner)*	A1359
AirMagnet Directional Antenna (Optional)**	A4040

* Available with PRO versions only of AirMagnet Laptop Analyzer and Survey.

**The AirMagnet Directional Antenna enhances the RF detection capabilities of the Spectrum Analyzer in a single direction.

Minimum System Requirements

Notebook computer with Pentium series processor running at 1 GHz or faster

Microsoft® Windows Vista™ Business or Ultimate, XP™ Professional (SP2), 2000 (SP4 or higher)

256 MB of RAM required (512 MB strongly recommended)

30 MB free disk space

Display resolution of 800 x 600 or higher (1024 x 768 recommended)

Optional 802.11 card or onboard 802.11 capability (in order to monitor Wi-Fi devices)

Technical Specifications	
Displayed Average Noise Level (DANL), RBW = 10 kHz	-124 (dBm)
Reference level (dBm)	-150 (min) +10 (max)
Frequency Stability (ppm)	+/- 20
Max safe input level (dBm)	0
Max input (dBm)	-10
Amplitude accuracy (dBm)	+/- 2.5
Frequency Span (MHz)	
2.4 GHz	0.03 (min) 100 (max)
5 GHz frequency span (MHz)	0.03 (min) 975 (max)
Center frequency resolution (kHz)	10
Resolution bandwidth (MHz)	0.01 (min) 5 (max)
Sweep time	
RTFFT Mode (Span= 20Mhz, RBW=156 kHz)	6.4 us
PvT Mode (Span = 0Hz, RBW=20MHz)	10ms
Trigger Delay (ms)	-10 (min) +10 (max)
Sweep time (ms)	30 (min) 30,000 (max)
Trigger delay (ms)	+/-30 (min); Max is 50% of sweep time selected

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