AirMagnet Spectrum XT

AirMagnet Spectrum XT is the industry's first professional spectrum analyzer solution that combines in-depth RF analysis with real-time WLAN information for quicker and more accurate troubleshooting of performance problems. This combined view of "impact analysis" of RF interference on the network's overall performance helps pin-point the root-cause of those problems.

Spectrum XT, the ideal solution for network engineers/technicians and installers/integrators for troubleshooting and deployment of WLAN networks, is available in the universal and convenient USB form factor, allowing it to be used on any notebook, netbook or tablet PC.

Spectrum XT also detects, identifies and helps locate individual sources of RF interference, including non WLAN devices such as Bluetooth devices, cordless phones, microwave ovens, Zigbee devices, wireless game controllers, and many more.

ADVANCED RF SPECTRUM ANALYSIS AND TROUBLESHOOTING

Universal USB form factor

Visualize impact of RF interference on WLAN performance

Automatically detect and identify interference sources

Physically locate interference sources

Expert RF Spectrum and Wi-Fi graphs

Spectrum session recording, playback and instant playback

Integrate with Professional site survey and Wi-Fi troubleshooting tools

AirMagnet Spectrum XT

Unmatched RF Spectrum Analysis

Spectrum XT provides complete visibility into the physical layer of your wireless LANs to identify RF interference and problems in the environment that impact the performance of the network . XT offers a variety of spectrum and Wi-Fi graphs as shown below:
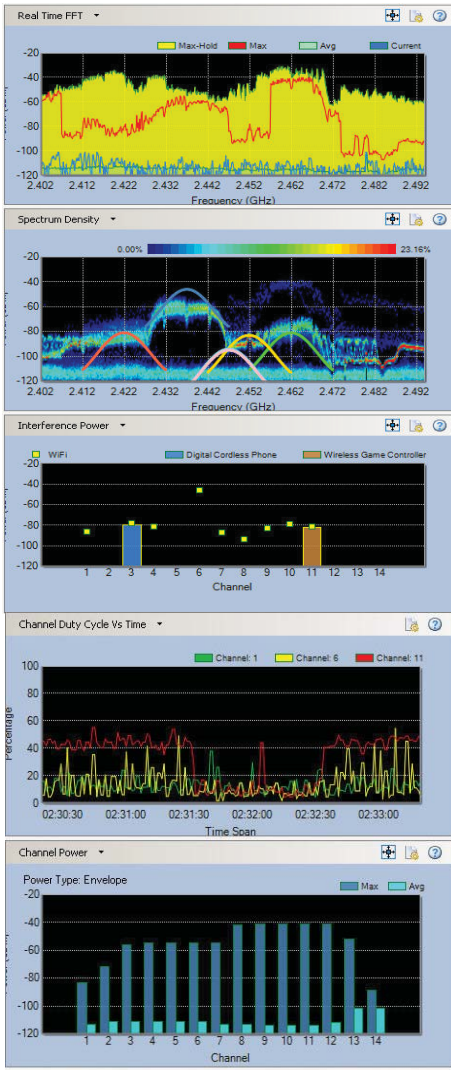
RF Spectrum Graphs

Real-Time FFT

The bedrock of any spectrum analyzer, XT's FFT graph provides a real-time view into the RF energy in the environment with current, max, max hold and average RF signal levels.

Spectrum Density

This graph provides a longer-term view into the network by displaying live information on the signals that have been common during the current capture session. This can be very helpful to identify infrequent transmitters.

Spectrogram

This graph provides a scrolling history of the RF environment and allows a visual understanding of the spectrum over time to see intermittent spikes or bursts of RF energy that may be causing WLAN network problems.

Duty Cycle

Duty cycle tells you just how often an interfering signal is present. A high duty cycle means an interferer is constantly transmitting and will most certainly cause problems on the affected channel.

Event Spectrogram

This graph provides a visual presentation of real-time information on interfering devices that are detected in the last 5 minutes. It includes information on power level and channels/frequencies affected by the device.

Channel Power

This graph shows the maximum and average power levels across all the channels in the selected radio band.
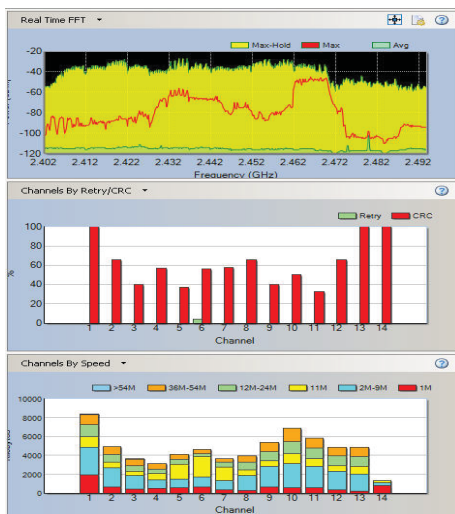
Interference Power

This graph displays the average power readings of interfering devices on the selected channel or channels.

Channel Duty Cycle & Interference Power Vs Time Trending

These trending graphs show the average power in the channels that is above the noise floor & the maximum average power readings of interfering devices operating on the selected channel over a specific period of time.

Unique RF interference & Wi-Fi Impact Analysis

RF interference and Wi-Fi impact analysis

To optimize and ensure top WLAN performance, Spectrum XT introduces a revolutionary approach to wireless troubleshooting that combines the power of RF spectrum analysis with WLAN traffic and device analysis. Just plug in any AirMagnet supported wireless adapter, and XT will instantly provide you with a combined or co-related single screen view, to help users visualize the impact of RF interference or interference sources operating in the environment on the overall true performance of the WLAN.

Spectrum XT also provides a complete inventory of all Wi-Fi devices operating in the environment and their configured settings. Users are also entitled to a number of Wi-Fi charts to solve their problems faster and more efficiently:

--AP Signal Strength

--Channels by Speed/Address/Media

--Top 10 APs by CRCs/Retry

--Channel SNR; Errors/Retry; Utilization; Occupancy

--Many more
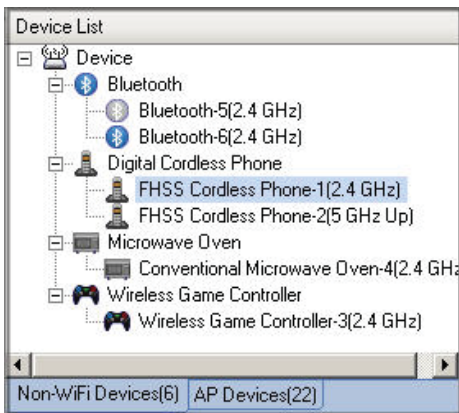
Detect and classify interfering sources

Automatic Identification of Interference sources

AirMagnet Spectrum XT offers real-time detection and identification of a number of non-WLAN sources that interfere with WLAN networks and lower the overall performance of the network. The extensive device or source list includes, bluetooth devices, digital & analog cordless phones, conventional and inverter microwave ovens, wireless game controllers, digital video converter, zigbee devices, baby monitors, RF Jammers, and many more.

Users are also powered with detailed information for the interference source, including:
--Peak and average power
--First and last seen time
--Center frequency
--Impacted channels
--Number of times the source was detected, and many more.

Built-in device locator tool

Locate Interference sources

With Spectrum XT's built-in "device locator tool", users can physically locate any Wi-Fi or non WI-Fi interference sources operating in the RF environment. The device locator tool operates as a Geiger counter and beeps louder as you get closer to the location of the device. After the device is located, the user can undertake the necessary course of action to mitigate the threat, that is lowering the performance of the network. Powered with the default omni-directional or optional directional antenna, users can pin-point the location of the interfering devices.

Users also obtain detailed logs on the detection time of the device or interference source, the range of channels affected, and the peak power of the device.
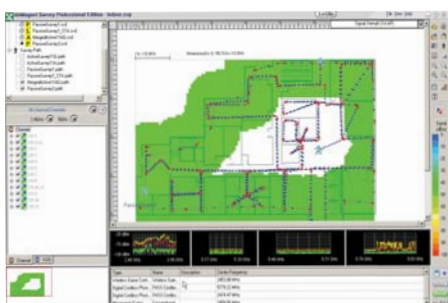
Integration with AirMagnet WiFi Analyzer

AirMagnet WiFi Analyzer PRO users running Spectrum XT on the same PC can view non-WLAN interference for every channel in the RF spectrum. Simple color indicators point to the level of impact of these RF interference sources on the performance of the WLAN network. This information will help you plan the channel settings for your current and planned WLAN infrastructure.

Integration with AirMagnet Survey

It is recommended that before any WLAN deployment, installers perform a RF spectrum sweep to ensure that there are no interference sources operating in the environment. AirMagnet Survey PRO users running Spectrum XT on the same machine, can perform RF spectrum surveys or sweeps at the same time as a passive or active survey, reducing the walk-around time. Users also get the list of interference sources detected by XT within Survey.
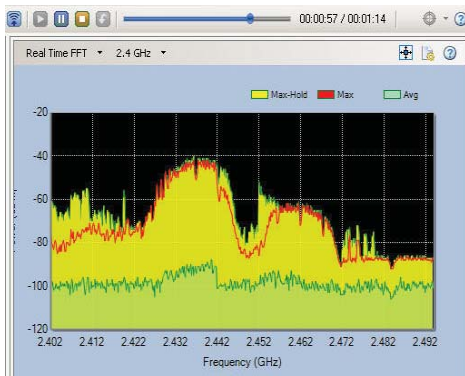
With this integration, users are entitled to unique heatmaps within Survey, like:
--Channel power heat map that provides a color-coded display of the power levels detected on each channel in the wireless spectrum.
--Interferer power/location heat map that displays non- WLAN interference sources or devices that are detected during the site survey .
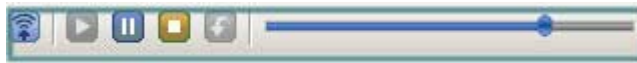

Integration with AirMagnet WiFi Analyzer and Survey

XT's record and playback feature

AirMagnet Spectrum XT users can save their RF spectrum scans, retain it as hard evidence and play it back at a later time for post-capture investigation and analysis. This is very helpful as critical forensic information while investigating any Layer 1 Denial of Service attacks against the WLAN network. The saved trace files can also be shared between users for collaborative analysis and troubleshooting.

Spectrum XT's 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.

Product Facts

Product	Part Number
AirMagnet Spectrum XT (USB Based)	AM/B4070

Technical Specifications

Frequency range: 2402 to 2494 MHz; 5160 to 5330 MHz; 5490 to 5710 MHz; 5735 to 5835 MHz; 4910 to 4990 MHz

USB Specs: Unit width 38.1mm; length 108.2mm; height 8 mm; weight 31.2 grams; operating temp: 0 to 70 C (32F to 158F)

DC power: Voltage supply 5 volts; Active Power: 2 Watts

Capture Limit: Dependent on Hard disk space

Amplitude accuracy: +/- 2 dB

Resolution Bandwidth: 156.3 KHz

Max Input: 0 dbm

Sweep time: 64msec per 20 MHz or 64msec per channel

Minimum System Requirements

Intel® Core™ 2 Duo 2.00 GHz or higher

XP™ Professional (SP2) operating systems (32-bit editions only) or Windows 7 Professional/Ultimate orMicrosoft® Windows Vista™ Business or Ultimate

1 GB RAM required (2 GB recommended)

150 MB free disk space

Microsoft .NET Framework 2.0

AirMagnet Spectrum USB adapter (for viewing RF spectrum data)

An AirMagnet-supported WiFi adapter (for viewing additional Wi-Fi data)

Patents: U.S. Patent No. 7009957, 7236460, 7292562, 7289465, ZL030807586, 7385948, 7613139B1 and 7130289. Additional patents pending.

For More Information

SALES: http://www.airmagnet.com/company/contact_airmagnet.php?type=sales

DEMO DOWNLOAD: http://www.airmagnet.com/products/demo/?demo=spectrum_xt

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