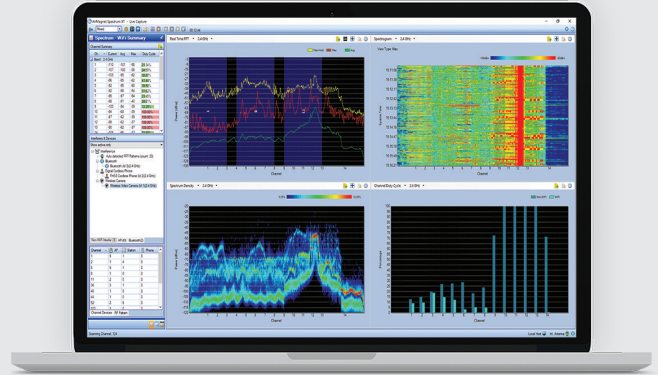# AirMagnet® Spectrum XT
Network Interference Analyzer

Overview

Trying to pinpoint the source of Wi-Fi interference on a wireless network is hit or miss with the wrong tools. AirMagnet Spectrum XT is a Wi-Fi spectrum analyzer that offers a combined view of RF interference and its impact on the wireless network's overall performance. This versatile solution is available in a universal USB form factor, and works on any Microsoft Windows notebook, netbook or tablet PC.

- Simplify interference troubleshooting by eliminating the need to interpret squiggly lines or manually match classification patterns
- Locate any Wi-Fi or non-Wi-Fi interference sources operating in the RF environment with the built-in device locator tool
- Prioritize Wi-Fi interference troubleshooting activities and reduce time to locate and fix wireless network issues
- Secure the Wi-Fi network by inspecting No Wireless Zones and detecting intentional RF interference sources such as RF jammers

Key Features

### Automatic Identification and Location of RF Interference Sources

AirMagnet Spectrum XT offers real-time detection and identification of non-Wi-Fi interference sources that lower the performance of wireless networks. The extensive device source list can include Bluetooth devices, cordless phones, microwave ovens, wireless game controllers, digital video converters, baby monitors, RF Jammers, radar, motion detectors, ZigBee devices, and more.

Spectrum XT also provides detailed information for non-Wi-Fi interference sources that allow users to decide which interferer device is causing the most problems, and with an additional Bluetooth adapter plugged into the same PC, the analyzer provides ID, name, services, and more for enhanced interferer analysis.

With the built-in "device locator tool," users can locate any interference sources operating in the RF environment by operating similar to a Geiger counter, the tool beeps louder as users get closer to the location of the device complaints, and reducing costly redesigns of the network.
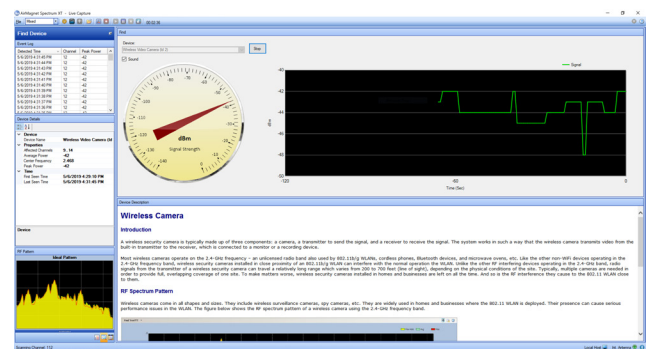
Automatic Detection of any RF Interference Source
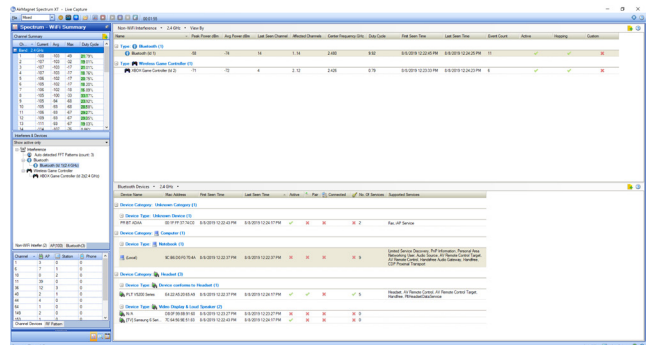
Non-802.11 Interferer Details

Integration with AirMagnet Survey PRO

AirMagnet Survey PRO users running AirMagnet Spectrum XT on the same machine can perform RF spectrum surveys, or sweeps, at the same time as a passive or active site survey, reducing the walk-around time. This information helps users plan the channel settings for the current and planned WLAN infrastructure. Users also get the list of RF interference sources detected by AirMagnet Spectrum XT, within AirMagnet Survey.

With this integration, spectrum analyzer users gain access to unique heat maps within AirMagnet Survey, such as Channel power heat maps and Interferer power/location heat maps.

Integration with AirMagnet Survey Pro

Integrated Reporting

AirMagnet Spectrum XT's integrated report engine makes it easy to turn RF spectrum analysis sessions into professional reports. Customization features allow this Wi-Fi spectrum analyzer to generate reports on all the information collected for the current environment. With the wireless spectrum analyzer, reports can be exported in Word, RTF, PDF, or HTML formats for hand-off.
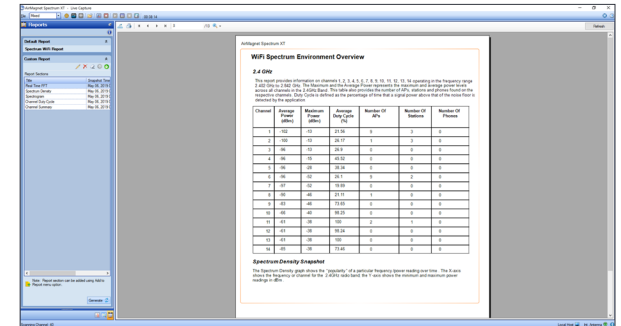

Integrated Reporting

"Zero-day" response to any RF interferer

AirMagnet Spectrum XT includes an automated spectrum analysis capability that monitors the RF environment looking for unique and repeating RF interference patterns from "unknown RF interference sources." Once the pattern of interest is detected and classified, users have the option of creating a customized signature for future alerting.
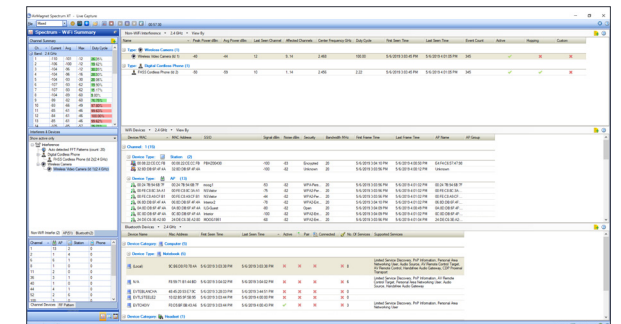
This wireless spectrum analysis capability provides users with a "zero-day" response to any interference source. This allows the user to have a faster response when troubleshooting performance problems in their network.
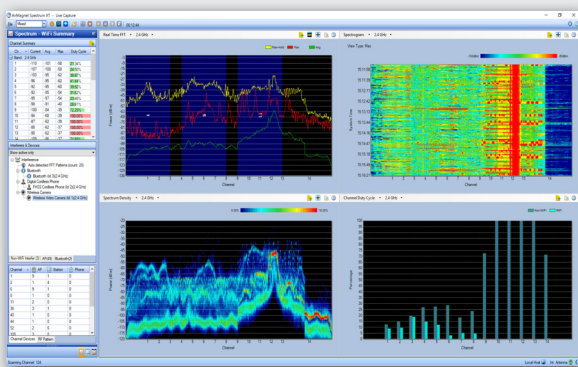

Detect and Classify Intefering Sources

RF Spectrum Diagnostic Views

High-resolution RF Spectrum Diagnostic Views

Key graphs and charts include:

Real-Time FFT - Provides a real-time view into the environment.

Spectrum Density – Displays real-time analysis on signals that are common during the current capture session.

Spectrogram - Shows intermittent spikes of RF energy that may be causing wireless network problems.

Duty Cycle - Displays how often an interfering signal is present.

Event Spectrogram - Provides a visual presentation of interfering devices that are detected.

Channel Power - Shows the maximum and average power levels across all the channels in the selected radio band.

Interference - Displays the average power readings of interfering devices on the selected channel or channels.

RF Interfence and WiFi Impact Analysis

Visualize Impact of RF Interference on Wireless Network Performance

To optimize and ensure top wireless network performance, AirMagnet Spectrum XT combines the power of RF spectrum analysis with WLAN traffic and device analysis. Spectrum XT users can plug in any supported wireless adapter and instantly see a combined or co-related single screen view showing the impact of interference sources on the overall performance of the WLAN.

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

- **AP Signal Strength**
- **Channels by Speed/Address/Media**
- **Top 10 APs by CRCs/Retry**
- **Channel SNR; Errors/Retry**
- **Channel Utilization**
- **Channel Occupancy**
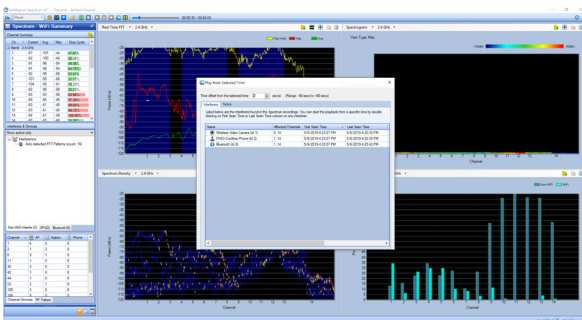
Record and Playback Features

Record and Playback

AirMagnet Spectrum XT users can save RF spectrum scans as hard evidence and play them back at a later time for post-capture investigation and analysis. The handy "jump-to" feature allows users to quickly navigate within a capture file to the start time of any interferers captured during the scan. The saved trace files can also be shared between users for collaborative analysis and troubleshooting.

Ordering Guide

Model Number/Name	Description
AM/B4070	AirMagnet Spectrum XT (USB Based)
AM/B4072	AirMagnet USB Spectrum Adapter - Replacement Only
AM/A4040	AirMagnet Directional Antenna
AM/D1080	NetAlly D1080 802.11A/B/G/N/AC USB Adapter (different versions available depending on regulatory domain)

Bundles

Model Number/Name	Description
AM/A1480	AirMagnet WLAN Design and Analysis Suite Bundle (Survey PRO/Planner, WiFi Analyzer PRO and Spectrum XT)
AM/A1490	AirMagnet WLAN Design and Analysis Suite Bundle with Multi Adapter Kit (Survey PRO/Planner, WiFi Analyzer PRO and Spectrum XT, and (3) NetAlly 11ac USB adapters) Available in US & Canada only.
AM/A1580	AirMagnet Survey PRO/Planner and Spectrum XT Bundle

Support

Model Number/Name	Description
AM/B4070-1YS	1 year AllyCare Support for AirMagnet Spectrum XT
AM/B4070-3YS	3 year AllyCare Support for AirMagnet Spectrum XT
AM/A1480-1YS	1 year AllyCare Support for AirMagnet WLAN Design & Analysis Suite Bundle
AM/A1480-3YS	3 year AllyCare Support for AirMagnet WLAN Design and Analysis Suite Bundle
AM/A1490-1YS	1 year AllyCare Support for AirMagnet WLAN Design and Analysis Suite Bundle with Multi-Adapter Kit
AM/A1490-3YS	3 year AllyCare Support for AirMagnet WLAN Design and Analysis Suite Bundle with Multi-Adapter Kit
AM/A1580-1YS	1 year AllyCare Support for AirMagnet Survey PRO/Planner and Spectrum XT Bundle
AM/A1580-3YS	3 year AllyCare Support for AirMagnet Survey PRO/Planner and Spectrum XT Bundle

Specifications

General	
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 38.1 mm; length 108.2 mm; height 8 mm; weight 31.2 grams; operating temp: 0° to 70° C (32°F to 158°F)
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	64 msec per 20 MHz or 64m sec per channel

Technical Specifications for Directional Antennas			
	MIN	NOM	MAX
Frequency Range - 2.4 GHz Band - 5 GHz Band	 2.4 GHz 4.9 GHz	 - -	 2.5 GHz 5.9 GHz
VSWR		1:1.5	
Impedance		50 Ohms	
Gain		5 dBi	
Polarizaiton		Linear	
Front-to-Ratio		>20dB	
Azimuth Beamwidth (V-pol)		55 deg	
Elevation Beamwidth (V-pol)		50 deg	

System Requirements

Laptop/Notebook/PC/Tablet PC
Operating Systems: Microsoft Windows 8.1 PRO/Enterprise 64-bit or Microsoft® Windows 10 PRO/Enterprise 64-bit
Intel® Core™ 2 Duo 2.00 GHz (Intel® Core™ i5 or higher recommended)
2 GB RAM required (4 GB recommended)
250 MB free hard disk space
USB Port, multiple ports in the PC when using optional wireless adapter
Microsoft .NET Framework 2.0

Apple® Macbook® PRO
Operating Systems: MAC OS X v10.9 (or higher) running a supported Windows OS (as noted under Laptop/Notebook PC/Tablet PC section) using Boot Camp®
Intel®-based 2.2 GHz Core 2 Duo or higher
2 GB RAM required (4 GB recommended)
250 MB free hard disk space
USB Port, multiple ports in the PC when using optional wireless adapter
Microsoft .NET Framework 2.0

Optional Adapters and Antennas

Additional Wi-Fi Analysis

AirMagnet Spectrum XT offers additional Wi-Fi analysis features in addition to the spectrum features supported by the AirMagnet Spectrum USB adapter. This does NOT remove the requirement for an AirMagnet Spectrum USB adapter, without which the Spectrum XT software will not work.

AirMagnet supports the following wireless adapters for additional analysis:

Preferred adapters: Adapters that have been comprehensively tested by AirMagnet and are recommended for use with the Air-Magnet products. For more information visit netally.com/products/airmagnet-spectrum-xt

Additional Bluetooth Analysis

AirMagnet Spectrum XT offers enhanced Bluetooth interferer information using an optional Windows-compatible Bluetooth adapter. The enhanced information includes details on the name, ID, services, etc. for Bluetooth devices. Users can either use the Bluetooth adapter that is built into their PC or can use an external adapter.

AirMagnet Directional Antenna

The AirMagnet Directional Antenna will enhance the RF detection and capabilities of AirMagnet Spectrum XT in a single direction helping narrow down the search pattern far more effectively. It is small, light and portable.

netally.com/products/airmagnet-spectrum-xt