



# AirMagnet Laptop Analyzer

AN AIRMAGNET MOBILITY SOLUTION



AirMagnet Laptop Analyzer is the industry's most valuable and complete solution for managing enterprise Wi-Fi networks. At the heart of the Laptop Analyzer is the AirWISE® engine, which automatically detects the root-cause of dozens of security and performance problems, explains alarms in plain English, and offers recommendations on how to solve or manage complex issues. Laptop Analyzer provides instant visibility into all wireless channels, devices, conversations, speeds, interference issues and the RF spectrum, making it the ideal product for pre-deployment and post-deployment of Wi-Fi Networks. The Analyzer also diagnoses Wi-Fi interference arising from WiFi and non-WiFi sources leading to reduced performance. As always, AirMagnet delivers a solution that is user-friendly to IT professionals, network managers, security and compliance officers, and wireless LAN experts.

## WIRELESS LAN ANALYSIS AND TROUBLESHOOTING

Complete 802.11a/b/g/n monitoring

Wi-Fi Packet Analysis

AirWISE® GUI with Expert Advice

Superior Security Threat Detection

Superior Performance Monitoring

Active Troubleshooting Tools

Complete Wi-Fi Interference Analysis

Compliance Auditing and Reporting

Multiple Platform Support





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The AirMagnet Laptop Analyzer software monitors all 802.11a, 11b, 11g, 11n and 4.9 GHz US Public Safety (requires Laptop Analyzer PRO and an AirMagnet supported 4.9GHz wireless adapter) channels for complete visibility of the entire Wi-Fi domain.

AirMagnet is compatible with a variety of internal and external wireless adapters. Please visit the AirMagnet website for a complete list of supported adapters and their capabilities. With the Intel PRO/Wireless 3945 wireless adapter, users can monitor the Wi-Fi environment and be connected to the network at the same time.

AirMagnet Laptop Analyzer can be installed on a variety of platforms including Windows-based Laptops, Tablet PCs, Apple® MacBook® Pro and Ultra Mobile PCs.



## AirWISE: Built-In Wireless Expertise



At the heart of the Laptop Analyzer is the AirWISE® engine, which automatically detects the root-cause of dozens of Wi-Fi issues across 802.11a, 11b, 11g, 11n and 4.9 GHz US Public Safety channels. AirWISE® eliminates the need for users to manually interpret complex packet decodes and wireless data by taking the proactive role of identifying and explaining more than hundreds of threats and performance issues before they impact the network. The user-friendly AirWISE® interface explains alarms in straightforward details, provides access to additional diagnostic data, and offers advice on corrective actions.

### Alerts You of Rogue Devices and Intrusions

AirMagnet's Laptop Analyzer automatically detects and alerts you of dozens of wireless intrusions, penetration attempts and hacking strategies including Rogue Devices, Denial of Service attacks, Dictionary Attacks, Faked APs, RF Jamming, and many more. This includes the ability to detect and identify the use of various "stumbler" tools which may indicate an unauthorized user attempting to snoop on your network.

### Alerts You of Network Performance Issues

Even the most secure network will fail to meet its objectives if it does not reliably meet the demands of network users. Furthermore, certain performance issues can escalate and open up the network to unknown risks. For this reason, AirMagnet has developed over 40 alerts to identify an entire range of performance issues including traffic patterns, bandwidth utilization and infrastructure or hardware failures or resets. Like all AirMagnet alerts, each comes with a detailed description of the problem, symptoms and causes, access to additional diagnostic data, advice on corrective action, and device tracking.

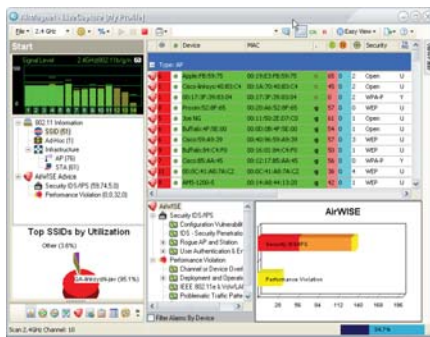
### Detects Subtle Network Weaknesses

AirMagnet performs a continuous vulnerability assessment of the network to detect subtle weaknesses that are often overlooked, such as devices sending unencrypted data, tracking LEAP vulnerabilities, detecting pre-802.11n devices, identifying unconfigured clients automatically scanning for APs and a host of potentially damaging security configurations. These proactive measures enable IT to take corrective action before a problem ever occurs.

### Locks Down Security Policies

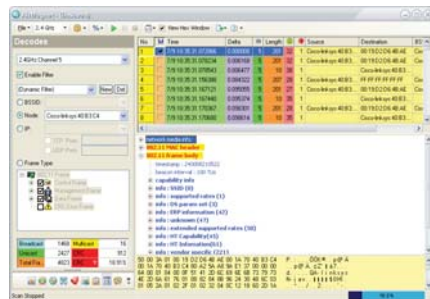
In a wireless LAN, if even one AP or station fails to run the appropriate security measures, the entire network is put at risk. Furthermore, several different security strategies may be needed in order to secure the entire enterprise. AirMagnet allows IT to pick the ideal security measures for your WLANs and then monitor for 100% compliance.

# 802.11n Monitoring & Troubleshooting



Laptop Analyzer identifies and classifies all 802.11n capable devices in the network (including differentiating between standards-compliant and pre-standard 802.11n devices). It supports monitoring for the 20 MHz and 40 MHz channels and classifies higher data rates used by the 802.11n devices. Using the Laptop Analyzer, users can also classify and decode Non-HT (legacy), HT mixed format and HT greenfield format traffic and identify backward compatibility issues with legacy 802.11a/b/g devices operating in the same environment. The Analyzer helps users physically locate 802.11n rogue devices operating in the environment (which are often invisible to non-802.11n analyzers) and decodes new information elements and wireless frame types.

## Flexible Settings & Infrastructure Monitoring



### "Results-oriented" User Interface

AirMagnet Laptop Analyzer's "results-oriented" User Interface adapts in ways desired by the users. Users can filter and choose to only view information on the different screens based on channels, device type, SSID and alarm severity or take advantage of the advanced sorting capability to view the information.

### Infrastructure Vendor monitoring

Infrastructure vendors provide multiple BSSIDs (MAC addresses) for a single AP to support multiple security configurations/applications on a single physical AP. AirMagnet Laptop Analyzer includes manual and automatic AP grouping capabilities to view such APs and recognize all the BSSIDs belonging to it. AirMagnet includes pre-defined grouping for the Cisco and Aruba Infrastructure.

Channel	#Hidden	#Interferers
1	2.88	0
2	0.83	0
3	1.47	0
4	5.66	0
5	24.68	0
6	14.43	0
7	17.81	0
8	7.35	0
9	3.04	0
10	7.45	0
11	12.07	0
12	2.47	0
13	0.66	0
14	0.35	0

### Complete Wi-Fi Interference detection & analysis

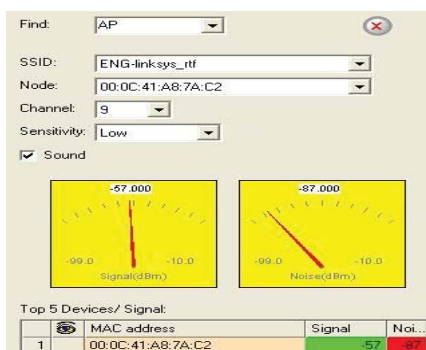
Wi-Fi Interference occurs due to co-channel/adjacent channel interference from the corporate or neighbor's WLAN, hidden nodes in the environment or sources outside of the 802.11 band. AirMagnet's Interference status indicator lists the overall interference status for each Wi-Fi channel, calculated based on the Wi-Fi interference score for the devices contributing to the interference; a list of hidden nodes and non Wi-Fi devices (*non Wi-Fi detection requires Laptop Analyzer PRO and AirMagnet Spectrum Analyzer*) operating in the channel. This enables AirMagnet users to plan future Wi-Fi deployments or modify their existing to increase network performance.

### Packet Decode Page

AirMagnet Laptop Analyzer also includes a real-time decode page for detailed network analysis. AirMagnet decodes the most popular protocols such as FTP, HTTP, SMTP, POP, and Telnet. Advanced filtering options allow you to focus on particular conversations based on IP address or port number.

## Active Troubleshooting Tools

AirMagnet Laptop Analyzer provides a suite of more than 15 troubleshooting tools to pin-point and solve wireless network problems.



### Wireless Device Find Tool

The Find Tool locks onto a particular AP or station and guides you to the physical location of non-complaint device or Rogue APs. The Find Tool can also be used to align signals between antennas to quickly optimize reception in line-of-sight bridging.

### Connection Troubleshooting

Directly troubleshoot connectivity between any client and AP in the network by viewing the step-by-step progress of a connection to pinpoint where the process is breaking down. Also use traditional tools such as Ping, Traceroute, Whois, DHCP, and DNS Lookup.

### Multipath Detection

With the Signal Distribution tool you can identify very rapid fluctuations in signal quality from any given access point to detect the presence of multipath interference at a particular location or even identify a malfunctioning access point.



# AirMagnet Laptop Analyzer PRO

AirMagnet Laptop PRO is a separate version of the Laptop software containing all the functionality of the basic version plus an additional set of features tailored to the needs of the wireless expert. Additional features include:

## 4.9 GHz US Public Safety Band

AirMagnet Laptop Analyzer users can monitor the band, detect security and performance issues and use a suite of troubleshooting tools to solve problems in the 4.9 GHz US Public Safety Band. Users need to use an AirMagnet supported 4.9 GHz wireless adapter for this feature.

## 200+ 802.11a channel support

AirMagnet Laptop allows the scanning of extended channels (up to 200) in the 5 Ghz spectrum. Since wireless hackers won't necessarily restrict their efforts to the commonly used channels, the ability to scan a wider range of the spectrum is becoming increasingly necessary.

## Integrated Reporting

AirMagnet's integrated reporter makes it easy to turn your Wi-Fi analysis sessions into professional customized reports. Choose from a library of pre-built reports or generate your own targeted reports by selecting specific items of interest from the user interface. Reports cover all areas of management including RF statistics, channel reports, device reports, security and performance issue reports.

## Compliance Reports

AirMagnet provides detailed compliance reports for a variety of regulatory standards including Sarbanes-Oxley, Basel II, EU-CRD (Cad 3), ISO 27001, FISMA, HIPAA, PCI-DSS, DoD 8100.2, and GLBA. Reports provide a step-by-step pass/fail assessment of each section of the standard. As a result, IT staff can take the guess work out of compliance audits and complete their work in a fraction of the time.

## Spectrum Analyzer Integration

Users that own the AirMagnet Spectrum Analyzer can view both Wi-Fi and Spectrum (layer 1 FFT spectrum plot) data during a single capture session giving them the most complete view of the wireless environment possible. Users will also be able view the list of detected non Wi-Fi interfering devices such as Bluetooth devices, cordless phones, microwave ovens, RF Jammers, etc. and monitor the channels affected, power capabilities & duty cycle of each interfering source.

## Peer to Peer

AirMagnet enables technicians to share live sessions between two Laptop analyzers so both users can analyze and discuss the same data.

## Product Facts

Product	Part Number
Laptop Analyzer Standard	A1152
Laptop Analyzer PRO	A1150
Laptop Analyzer Standard to Laptop Analyzer PRO (upgrade model)	A1153
AirMagnet Spectrum Analyzer (optional)	A4030

**Patents:** U.S. Patent No. 7009957, 7236460, 7292562, 7289465 and 7130289. Additional patents pending.

### Minimum System Requirements

Microsoft® Windows Vista™ Business or Ultimate, 2000 (SP 4) or XP™ Professional (SP 2) / Tablet PC Edition 2005 (SP 2) or MAC OS X Leopard™ (Apple® MacBook® Pro running Windows XP™ PRO/SP2 using Boot Camp® )  
Intel® Pentium® III 1.26 GHz (Pentium® M 1.6Ghz or higher recommended)  
256 MB Memory (512 MB recommended) for Windows 2000/XP™ PRO, 512 MB Memory (1 GB recommended) for Windows Vista™  
An AirMagnet Spectrum Analyzer Adapter and license (Required for viewing spectrum data and classifying non-802.11 devices. Not supported on Ultra Mobile PC platform)  
100 MB of free disk space  
Cardbus, Expresscard or mini PCI slot  
For Ultra Mobile PC platform support: OQO model 02/e2: <http://www.oqo.com/products/index.html> (Better, best, and best with SSD models supported. Windows XP™ PRO only)  
Supported wireless adapter

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