



# AirMagnet Handheld Analyzer



AirMagnet Handheld Analyzer is the industry's most valuable and portable solution for managing Wi-Fi networks. At the heart of the Handheld Analyzer is the AirWISE® engine, which automatically detects the root-cause of hundreds of security and performance problems, explains alarms in plain English, and offers recommendations on how to solve or manage complex issues. Handheld Analyzer provides instant visibility into all 802.11b/g channels, devices, conversations and speeds for the 2.4 GHz wireless spectrum. 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

Convenient and Portable Form Factor

Full 802.11 b/g support

Wi-Fi Packet Analysis

AirWISE® GUI with Expert Advice

Superior Security Threat Detection

Superior Performance Monitoring

Active Troubleshooting Tools



# AirMagnet HandheldAnalyzer

1. The AirMagnet Handheld Analyzer software monitors all 802.11b and 11g channels for complete visibility of the entire 2.4 GHz Wi-Fi domain.
2. AirMagnet is compatible with PCMCIA and CF Type II adapters. Please visit the AirMagnet website for a complete list of supported adapters and their capabilities.



## AirWISE: Built-In Wireless Expertise

Icon	Alert Description	Time
3	AP with WEP disabled	12:49:10
6	AP with WEP disabled	12:49:10
7	Client with WEP disabled	12:49:10
11	Device unprotected by TKIP	12:49:12
13	Client with WEP disabled	12:49:13
1	Device unprotected by TKIP	12:49:14
1	AP with WEP disabled	12:49:14
?	Station with open WLAN connect	12:49:26
?	Ad-hoc mode station detected	12:49:59
?	Ad-hoc mode station detected	12:49:59
7	AP broadcasting SSID	12:50:09
1	AP broadcasting SSID	12:50:09
6	AP broadcasting SSID	12:50:09
3	AP broadcasting SSID	12:50:09
?	Station with open WLAN connect	12:50:19

AirWISE® : Built-in wireless Expertise

At the heart of the Handheld Analyzer is the AirWISE® engine, which automatically detects the root-cause of hundreds of Wi-Fi issues across 802.11b and 11g 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 130 classes of threats and performance issues and more than 200 types of attack tools and strategies 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 Handheld 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 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 expose 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 and advice on corrective action.

### 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.

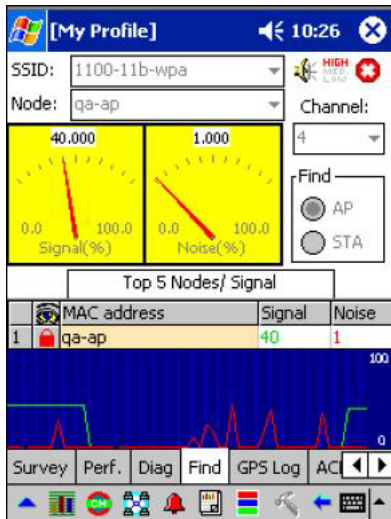
### Locks Down Security Policies

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. Supported protocols include:

- WEP
- LEAP
- PEAP
- EAP-FAST
- WPA
- PPTP VPN
- TKIP
- 802.11i
- 802.1x
- L2TP VPN
- SSH VPN
- IPSEC VPN
- TTLS
- TLS
- Fortress
- Cranite

# Active Troubleshooting Tools

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



FIND tool to locate Rogue Devices

## Wireless Device Find Tool

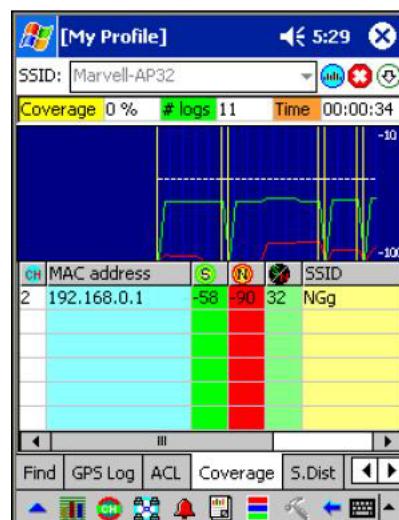
The Find Tool locks onto a particular AP or station and guides you to the physical location of non-complaint device or Rogue APs. The Find Tool can also be used to align signals between antennas to quickly optimize reception in line-of-sight bridging.

## 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.

## 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.



Coverage tool to conform to SLAs

## Throughput Measurement

AirMagnet's Performance tool allows users to run a performance test on any AP in the environment and measure the maximum WLAN bandwidth at a particular location; find the optimum configuration for maximizing WLAN throughput and test WLAN devices under various traffic stress scenarios.

## Conform to Service Level Agreements

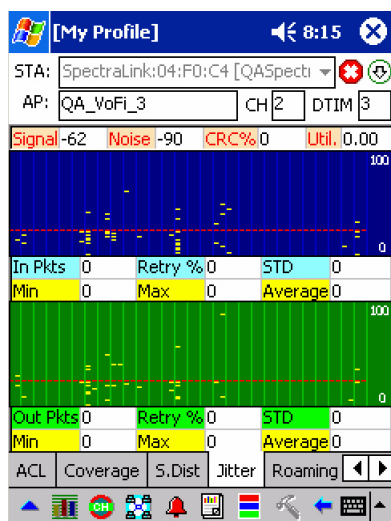
AirMagnet's Coverage tool allows users to visualize what percentage of their network conforms to established service levels. This allows IT to set custom SLAs, and provide proof that the SLAs are actually met.

## Roaming Analysis tool

AirMagnet's Roaming tool measures the time required for clients to roam between multiple APs.

## Jitter tool

The AirMagnet Jitter tool allows the user to effectively measure RF signal jitter that causes the quality of calls or network connections to suffer, in both incoming and outgoing WLAN traffic between an AP and a station.

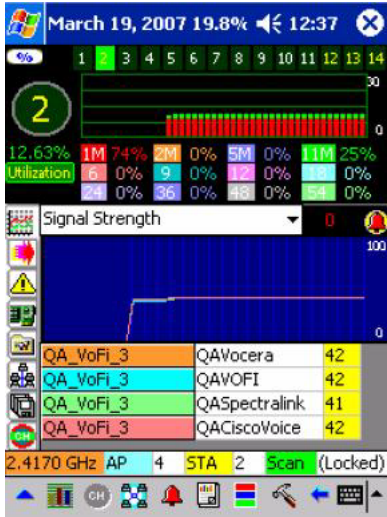


Jitter tool for VoWLAN analysis

## Outdoor tool

AirMagnet's GPS tool is used to maintain a log of the longitude, latitude and altitude data for any specified AP, STA or ad-hoc node in the network.

# Channel & Traffic Analysis



Channel Analysis

## Channel Analysis Page

The Handheld Analyzer's Channel Analysis screen allows the user to focus on a specific channel for detailed data analysis. The analyzer locks on the selected channel until further command from the user. Data for channel utilization, throughput, signal strength and a variety of other parameters of the selected channel are updated continuously in real time. Also the data is broken down by link speed, and is color-coded for easy viewing.

## Top Traffic Analysis

The Charts screen allows you to easily identify the top 5 issues in your WLAN in the selected category. Frame speed, 802.11 frame type, or address type can be plotted for the top 5 access points, stations, nodes, or channels. This makes it easy to discover bandwidth hogs or get a quick feel for the frame ratios. The data can also be exported as .csv files for offline analysis.

## Packet Decode Page

In addition to the user-friendly AirWISE® interface, AirMagnet Handheld 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.

# Product Facts

Product	Part Number	Minimum System Requirements
Handheld Analyzer	AM/A1027	Intel® StrongARM processor, Marvell® Xscale® Processor (PXA 270-tested & verified by AirMagnet)
Summit Data Communications SDC-CF20G 802.11g Compact Flash card with Integrated Antennas	AM/C1015	Microsoft® Pocket PC 2003 or Windows Mobile® 5.0
		64 MB of RAM
		3 MB of free disk space (for installation)
		16 MB of free memory space
		Open slot for PCMCIA or CF Type II card

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

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