

YELLOWJACKET® B/A/G

802.11 B/A/G WI-FI ANALYSIS SYSTEM

Yellowjacket® B/A/G is a wireless test receiver system that demodulates, sweeps, analyzes, and optimizes all popular 802.11 Wi-Fi network standards including 802.11b/g (2.4 GHz) and 802.11a (5 GHz). The calibrated receiver is a passive measurement device that is network independent so it remains “invisible” to any Wi-Fi network. **Yellowjacket® B/A/G** is also a powerful spectrum analyzer that measures RF energy allowing not only detailed interference analysis but the ability to see the “whole picture” of your 2.4 and 5 GHz network WISP or hotspot. When equipped with a BVS DF (Direction Finding) antenna, **Yellowjacket® B/A/G** locates and pinpoints rogue APs and STAs and even detects spurious interference from sources such as microwave ovens and cordless phones. Powerful packet analysis features such as SNR (Signal-to-Noise), Multipath (Ec/Io), Delay Spread, Channel Frequency Response (CFR), SSID and Received Signal Strength Indicator (RSSI) give **Yellowjacket® B/A/G** the distinction of being the only true handheld RF spectrum protocol analysis and direction finding tool accurate to within 1 dB. **Yellowjacket® B/A/G** functions as a complete WLAN analysis system offering both measurements made through packet demodulation and spectrum analysis in a rugged, handheld package.

FEATURES:

- Measure 2.4 GHz coverage for DSSS and OFDM WLANs within the IEEE 802.11b/g standard
- Measure 5 GHz coverage for OFDM WLANs within the IEEE 802.11a standard
- Receive, filter and process DSSS and OFDM studies all in a handheld Windows Mobile OS® environment
- 802.11 packet Demodulation tools for Channel Frequency Response, Antenna Alignment and Signal-to-Noise ratio
- Full Featured Spectrum Analysis including Power Triggers, Waveform Traces and Full Spectrum Sweep
- Measure RSSI in true dBm with a calibrated receiver
- Multipath and RSSI; narrow band & total channel power
- Complex AP / STA list analysis including Multipath, Absolute Channel, and SSID
- Rechargeable Internal Li-Poly battery or A/C power
- RJ-45 Ethernet Port for fast, networked PC communication
- MAC Security Authorization Lists/Detection/Alarms as well as WEP and WPA encryption detection
- Optional Direction Finding antennae for locating rogue APs, WLAN hackers and spurious RF interference*
- Internal GPS receiver for realtime geo-coding of all measurements and optional Swarm™ mapping/validation coverage software

*Direction Finding designed for use with optional DF antenna (sold separately)
*Swarm™ Mapping Software sold separately



Swarm™ Mapping Software combines both indoor network surveys and outdoor GPS drive studies for a seamless overall picture and analysis of your 802.11 Wi-Fi networks as well as any RF interference or adjacent WLANs that might disturb your network's performance.

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YELLOWJACKET®-B/A/G

802.11B/A/G Wi-Fi ANALYSIS SYSTEM

DEMODULATOR SPECIFICATIONS

BANDS SUPPORTED

2.4-2.5 GHz, 5-5.8 GHz (includes 802.11a and 802.11h (Europe))

RF SENSITIVITY (Wide Band)

-20 to -90 dBm

PACKET PREAMBLE DEMODULATOR and ANALYZER

Multipath Measurement and Graphical Display

CORRELATED POWER MEASUREMENTS

RATIO

Correlated Power (dBm)

-30 dBm : -100 dBm

Correlated Power to Total Power Ec/Io (dB)

0 dB : -10 dB

Total Channel Power Measurement

- 20 dBm : -80 dBm

SPECTRUM ANALYZER SPECIFICATIONS

BANDS SUPPORTED

2.4-2.5 GHz, 5-5.8 GHz (includes 802.11a and 802.11h (Europe))

AVERAGE NOISE FLOOR (NO INPUT)

< -100 dBm (reference level -70 dBm, resolution bandwidth = 50 kHz)

DYNAMIC RANGE

> 40 dB

LEVEL ACCURACY

± 1.5 dB (25° C)

MAX INPUT (SAFE)

+ 0 dB

MAX INPUT (NO SATURATION)

- 20 dB

REFERENCE LEVEL

-20 to -70 dBm (10 dB steps)

DISPLAY (IPAQ)

see HX2700 specifications

OPERATING SYSTEM (IPAQ)

Windows® Mobile 5.0

TRIGGERING

USER CONTROL

auto or manual

PACKET/INTERFERENCE TRIGGER

trigger analyzer when input power meets or exceeds threshold (20 MHz span)

TRIGGER THRESHOLD

user settable in dBm

TRIGGER DELAY

user settable in mS

GENERAL SPECIFICATIONS

INTERNAL GPS RECEIVER

12-channel GPS receiver

INPUT CONNECTOR

SMA Female, 50 Ohm

POWER

Li-PO, AC or DC

RUNTIME INTERNAL BATTERY

> 3 hours

RECHARGE TIME

< 3 hours

PHYSICAL SPECIFICATIONS

WEIGHT

3 lbs.

DIMENSIONS

3"H x 5"W x 9"L (water resistant, high impact ABS plastic case)



SPECTRUM ANALYSIS

Full spectrum sweep
Preset channel sweep
Variable Resolution Bandwidth
Set Reference Level
Channel Power
Screen Averaging
Video Smoothing
Marker/Delta Functions
Trigger
Multiple Traces
Spectrogram
Histogram
Persistence



PACKET DEMODULATION:

Survey sweep of channels for all APs
Individual channel analysis of APs or STAs
Absolute channel
W.I.S.P. antenna alignment
Signal-to-Noise ratios
RSSI for each AP/STA in true dBm
Multipath in chips and nanoseconds
AP manufacturer's ID



NETWORK SECURITY:

Authorize or Unauthorize MAC addresses
Generate valid AP list automatically
Upload AP list from PC
Flag invalid APs as "suspect"
Detects WEP encryption
Detects WPA encryption