

# YELLOWJACKET®-OEM

Wi-Fi RECEIVER MODULE & SOFTWARE DEVELOPER'S KIT

Wi-Fi PACKET ANALYSIS

802.11b  
802.11a  
802.11n  
802.11g

RF SPECTRUM ANALYSIS

2.0 - 5.9 GHz



## Wi-Fi RECEIVER

**YELLOWJACKET®-OEM** is an 802.11 Wi-Fi developer's kit that includes a calibrated receiver and DLL. The calibrated receiver measures between 2.0 - 5.9 GHz covering such popular wireless bands including Wi-Fi, Wi-MAX, ISM, Public Safety, Bluetooth and more. **YELLOWJACKET®-OEM** sweeps and demodulates all 802.11b/a/n/g packets providing MAC, SSID, SNR, Delay Spread, CFR and more. Berkeley's receiver technology measures RSSI to within  $\pm 1$  dB of any nearby 802.11 packet on or off your network. **YELLOWJACKET®-OEM** module contains (1) Ethernet 10/100 Mbit port and (1) mini USB port for PC connectivity, (1) standard SMA female antenna connection, an internal 12-channel/satellite GPS receiver and necessary DLL software and documentation.

## DLL CODER'S KIT

**YELLOWJACKET®-OEM** includes a DLL (Dynamic Link Libraries) to get any developer up and running with their own custom software development. The **YELLOWJACKET®-OEM** kit includes all the necessary components for creating customizable WLAN surveys, interference detection and packet traffic analysis.



Hard case with all accessories



DLL software & documentation

Built-in 12-channel GPS receiver



SMA female antenna connection

mini USB port



Ethernet 10/100 Mbit connection



Call us today for more information:

TOLL FREE 1-888-737-4287

Tel: +1 732-548-3737

Fax: (732) 548-3404

www.bvsystems.com

email: sales@bvsystems.com

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## WI-FI RECEIVER MODULE FOR SOFTWARE DEVELOPERS

### DEMODULATOR SPECIFICATIONS

<b>BANDS SUPPORTED</b>	2.4-2.5 & 5.8 GHz (all 802.11b/a/g)
<b>RF SENSITIVITY (Wide Band)</b>	-20 to -90 dBm
<b>PACKET DEMODULATOR</b>	Multipath Measurement and Graphical Display
<b>CORRELATED POWER MEASUREMENTS</b>	% Total Power
Total Channel Power Measurement	- 20 dBm : -80 dBm
<b>PACKET DEMODULATION</b>	
Channel Scan Mode	Device MAC Address, SSID, RSSI, Channel Number, Encryption (On / Off), Data Rates, Modulation (DSSS / OFDM), Device Type (AP / NIC), Tx Packet Type & Device Packet Type Sent To / Received From.
<b>SINGLE DEVICE SURVEY MODE</b>	
Packet Analysis	Relative distribution of the different packets transmitted (broadcast/ unicast / multi cast) and data rates of transmitter packets
Traffic Analysis	Relative distribution of various Tx / Rx packets (data, beacon, probe Rq. / Rsp., etc.)
<b>MULTIPATH ANALYSIS</b>	Percentage of total correlated power
<b>CHANNEL SCAN SETTINGS</b>	
User Selectable	Select 14 channels in 2.4 GHz band (802.11b/g) and 27 channels in 5 GHz band (802.11a) with user selectable scan time settings per channel
Adaptive Scan	Intelligent scanning technique allows the receiver to spend more time on channels with greater Wi-Fi activity. Channel scan time increments everytime activity has been detected on a channel up to a maximum value.

### SPECTRUM ANALYZER SPECIFICATIONS

<b>BANDS SUPPORTED</b>	2.0 - 5.9 GHz (includes 802.11b, a, n, g, h)
<b>AVERAGE NOISE FLOOR (NO INPUT)</b>	< -100 dBm (reference level -70 dBm, resolution bandwidth = 50 kHz)
<b>DYNAMIC RANGE</b>	> 40 dB
<b>LEVEL ACCURACY</b>	± 1.5 dB (25° C)
<b>MAX INPUT (SAFE)</b>	+ 0 dB
<b>MAX INPUT (NO SATURATION)</b>	- 20 dB
<b>REFERENCE LEVEL</b>	-20 to -70 dBm (10 dB steps)
<b>DISPLAY (Tablet UMPC)</b>	see Samsung Q1 specifications
<b>OPERATING SYSTEM (Tablet UMPC)</b>	Windows® Tablet XP

### TRIGGERING

<b>PACKET/INTERFERENCE TRIGGER</b>	trigger analyzer when input power ≥ threshold (20 MHz span)
<b>TRIGGER THRESHOLD</b>	user settable in dBm (up to 20 dB below current reference power level)
<b>TRIGGER DELAY</b>	user settable in mS

### GENERAL SPECIFICATIONS

<b>INTERNAL GPS RECEIVER</b>	12-channel GPS receiver
<b>INPUT CONNECTOR</b>	SMA Female, 50 Ohm
<b>POWER</b>	Included AC to DC transformer

### PHYSICAL SPECIFICATIONS

<b>WEIGHT</b>	2 lbs.
<b>DIMENSIONS</b>	3"H x 4"W x 8"L (water resistant, high impact ABS plastic case)

