

# Bumble Bee-EX™

**HANDHELD RUGGEDIZED SPECTRUM ANALYZER**



**2.0-4.0 GHz** & **4.9-5.9 GHz**

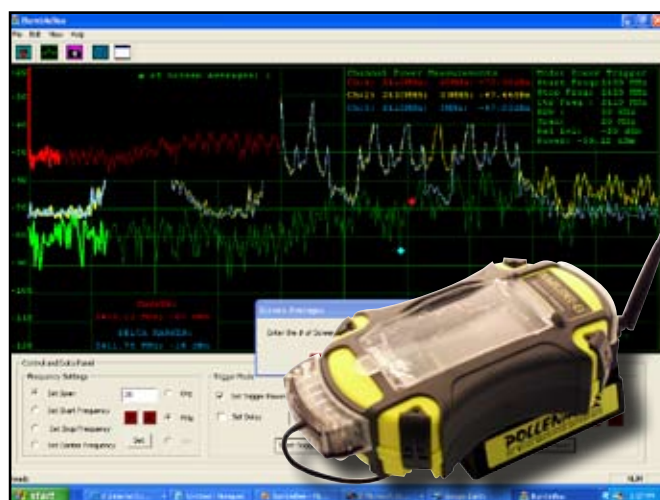
**BumbleBee-EX™** is a rugged, calibrated spectrum analyzer all-in-one system. The handheld receiver measures the popular wireless Wi-Fi/Wi-MAX frequencies between 2.0-4.0 & 4.9-5.9 GHz. **BumbleBee-EX** allows users to scan, display and record multiple RF waveforms for network installation, coverage and interference analysis. The color, touch-screen allows field engineers to tap on points of interest in any waveform and “zoom” in for further analysis. Advanced spectrum analysis features include 3 waveform, peak hold, peak search and user selectable power triggers. **BumbleBee-EX** allows for realtime spectral analysis of many wireless standards including RFID, VoIP, 802.11b/a/g & Bluetooth as well as unidentified RF interference such as microwaves and cordless phones. **BumbleBee-EX** takes the power of sophisticated laboratory spectrum analyzers and puts it in user's hands.

- SUPPORTS  
**Wi-MAX** frequencies
- IDENTIFIES  
**802.11b/a/g/n** frequencies
- SCANS  
**VoIP** frequencies
- ANALYZES  
**Bluetooth** frequencies



## BUMBLE BEE-EX FEATURES:

- 2.0-4.0 & 4.9-5.9 GHz SPECTRUM ANALYSIS**
- Wi-MAX, RFID, VoIP, 802.11 & OTHER ISM FREQUENCIES**
- COLOR, TOUCH-SCREEN INTERFACE**
- 3 WAVEFORM TRACES**
- PEAK HOLD / SEARCH**
- PACKET / INTERFERENCE TRIGGERS**
- WAVEFORM JPEG SNAPSHOTS**
- NECTAR PC SPECTRUM ANALYSIS SOFTWARE (OPTIONAL)**



Now you can have all the power of BumbleBee-EX on your PC with Nectar™ spectrum analysis software and Berkeley's Pollenator™ USB/Ethernet PC interface.

Berkeley Varitronics Systems  
255 Liberty Street, Metuchen, NJ 08840  
1-888-737-4287 / Fax: (732) 548-3404  
[www.bvsystems.com](http://www.bvsystems.com)

# Bumble Bee-EX™



## HANDHELD RUGGEDIZED SPECTRUM ANALYZER

### Frequency:

Standards: Wi-Fi 802.11b/a/g  
Wi-MAX  
ISM Band  
Public Safety  
U-NII

### Span:

50 kHz to 800 MHz  
Resolution bandwidth: 50 kHz – 1 MHz (50, 100, 300, 500, 1 MHz)  
Automatic 802.11 preset bandwidths  
Video bandwidth (smoothing): 100 kHz – 1 MHz (50 kHz steps)  
Screen Averaging: 1 – 100 Averages  
Reference Stability:  $\pm 2.5$  PPM  
Sweep Time: 800 mSec (20 MHz span, 50 kHz resolution bandwidth)

### Amplitude:

Average Noise Floor (No input):  $< -100$  dBm (reference level  $-70$  dBm)  
Dynamic Range:  $> 40$  dB  
Level Accuracy:  $\pm 1.5$  dB (25 deg. C)  
Max input (safe):  $+ 0$  dBm  
Max input (no saturation):  $- 20$  dB  
Reference level:  $-20$  to  $-70$  dBm (10 dB steps)

### Display/Operating System/Memory:

Number of traces: 3 colors  
Trace settings: Peak hold, screen average  
Marker functions: Peak search, center frequency, left, right, delta  
Screen shots saved to .jpg file  
Display (iPAQ): see HP2795 specifications  
Operating system (iPAQ): Windows® Mobile 5.0

### Triggering:

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.

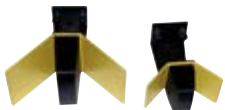
**Input Connector:** SMA Female, 50 $\Omega$

### Power:

Internal battery: (Li-PO), AC or DC  
Run time (internal battery):  $> 3$  hours  
Re-charge time:  $< 1$  hour

### Physical Specifications:

Weight: 3 lbs.  
Dimensions: 6"H x 4"W x 6"L



Optional 2.4 GHz    Optional 5 GHz



Optional 30 dB Attenuator



Optional 12V Power Inverter



Optional Logging Software



Mapping Software



RF Analysis Software