

Bumble Bee™

HANDHELD MULTI-BAND SPECTRUM ANALYZER

SPOT RFID TAGS

DETECT 802.11 APs

PUBLIC SAFETY BAND

IDENTIFY VoIP SIGNALS

NOW SUPPORTS 4.9 GHz (Public Safety Band)

900 MHz

2.4 GHz

4.9 GHz

5 GHz

BumbleBee™ is a precision calibrated Wi-Fi spectrum analyzer that interfaces with HP's iPAQ® PocketPC®. The handheld receiver measures popular wireless bands: 900 MHz, 2.4 GHz, 4.9 GHz and 5 GHz. **BumbleBee™** allows the user to capture, display and record each of these bands for network installation, coverage and interference analysis. The iPAQ's touch screen allows field engineers to tap on points of interest in the waveform and "zoom" in for further analysis. Advanced spectrum analysis features include 3 WAVEFORM TRACES, PEAK HOLD, PEAK SEARCH, SPECTROGRAM, HISTOGRAM and user selectable PACKET / INTERFERENCE TRIGGERS. **BumbleBee™** allows for on-the-fly switching of bands for realtime spectral analysis of many wireless standards including RFID, VoIP, 802.11(b,a,g & Bluetooth) and cordless phones/video. **BumbleBee™** is the only true handheld Wi-Fi spectrum analyzer.

BUMBLE BEE FEATURES:

- 900 MHz, 2.4 GHz, 4.9 GHz, 5 GHz SPECTRUM ANALYSIS** (4.9 GHz only available in Public Safety Model)
- IDENTIFY RFID, VoIP, 802.11 & OTHER ISM RF SPECTRUMS**
- HP iPAQ POCKETPC INTERFACE**
- 3 WAVEFORM TRACES**
- RF SPECTROGRAM & HISTOGRAM**
- PEAK HOLD / SEARCH**
- PACKET / INTERFERENCE TRIGGERS**
- 802.11 CHANNEL PRESETS**
- WAVEFORM JPEG SNAPSHOTS**

IDENTIFY INTERFERENCE



Berkeley Varitronics Systems
255 Liberty Street, Metuchen, NJ 08840
(732) 548-3737 / Fax: (732) 548-3404
www.bvsystems.com

BERKELEY VARITRONICS SYSTEMS
wireless products

Bumble Bee™



HANDHELD MULTI-BAND SPECTRUM ANALYZER

Frequency:

Ranges:	902-928 MHz	ISM Band	
	2400 – 2500 MHz	ISM Band	(802.11/802.11b/g standard)
	4940 – 4990 MHz	(Public Safety Band)	*only available in public safety model
	5150 – 5500 MHz	U-NII	(802.11a standard)
	5500 – 5900 MHz	U-NII	(802.11a standard)

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:	± 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:	± 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 see HP4700 or HP2200 specifications
Display (iPAQ):	Pocket PC™ 2003
Operating system (iPAQ):	

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, 50Ω
------------------	-----------------

Power:

Internal battery:	(4 AA Ni-MH), AC or DC
Run time (internal battery):	> 3 hours
Re-charge time:	< 1 hour

Physical Specifications:

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

Accessories:

900 MHz Antenna
2400 MHz Antenna
5 GHz Antenna

Optional Accessories:

HX4700 or HX2400 series iPAQ
12V Car Adapter
900 MHz Yagi Antenna
2.4 GHz Directional Antenna
5 GHz Directional Antenna
5 Watt dB attenuator pad

Use Berkeley's optional 5 watt attenuator pad when connected directly to an AP.



Use Berkeley's optional 900 MHz, 2.4 GHz or 5 GHz directional antenna to locate and pinpoint various sources of interference or hackers.

