

# BANTAM INSTRUMENTS

## WLAN SPECTRUM ANALYZERS



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## WHO ARE WE?

- 8 year old company located in Silicon Valley
- Founders have over 100 years of RF experience
- Sales worldwide to major companies
- Products with low cost and ease of use
- Wide variety of handheld spectrum analyzers:
  - EMC Pre-Compliance Measurements
  - Remote Signal Monitoring
  - Satellite Uplink/Downlink Testing (70 & 140 MHz IF)
  - 2.4 GHz and 5 GHz WLAN Spectrum Analyzer

# WLAN Spectrum Analyzers

- Selection of AP locations
- Selection of AP channels

These are based on signal strength measurements and on consideration of radio propagation issues.

If the site involves a building with two or more floors, the design can become quite complex as it becomes 3-dimensional

# Interference Signals

- Microwave Ovens
- Wireless Telephones
- Wireless Cameras
- Medical or Industrial Equipment
- Other 802.11 Installations
- Co-Channel Interference

A true spectrum analyzer is required to detect and identify many of these signals.

# True Measurement of Field Strength

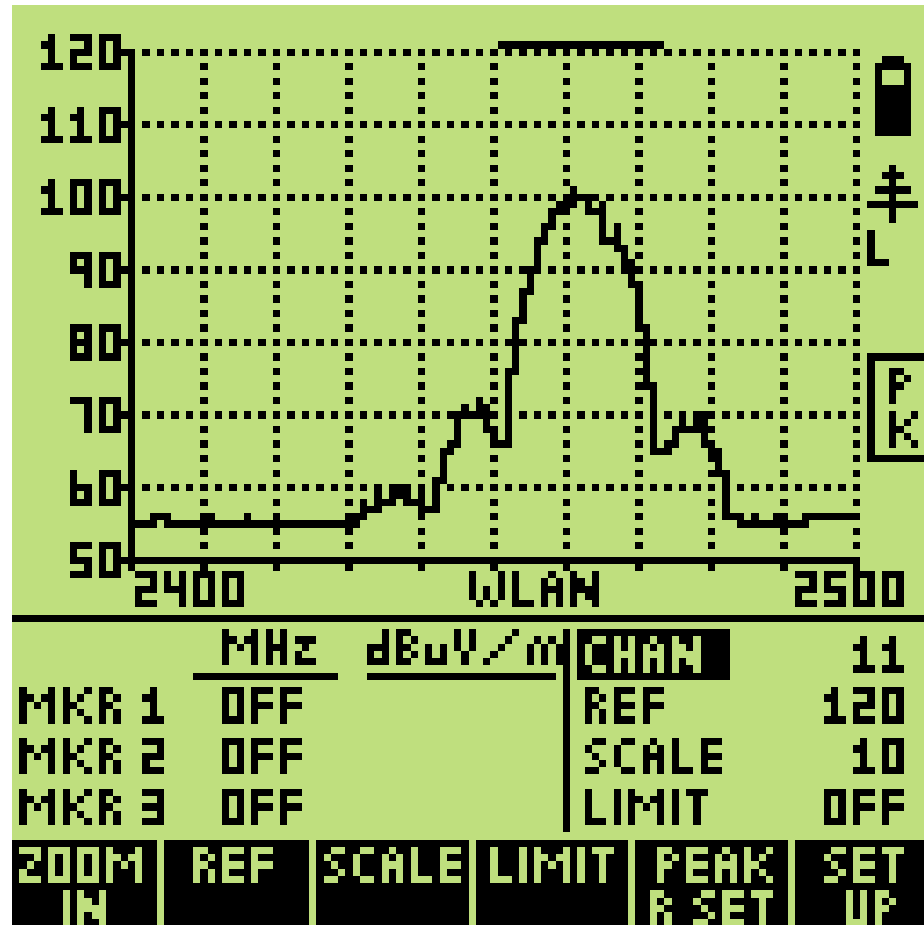


Calibrated antennas are included with the spectrum analyzer.

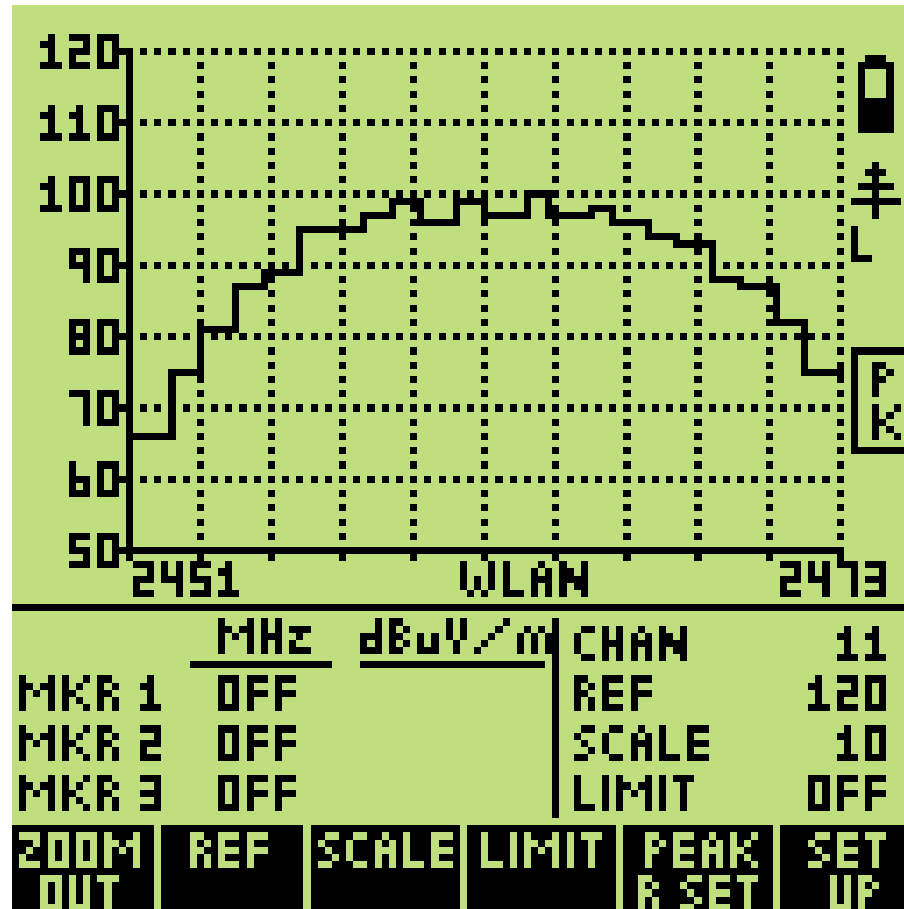
Measure Signal Strength in  $\text{dB}\mu\text{V}/\text{m}$  using the supplied antenna. The antenna factor,  $AF$ , of the antenna is stored in the spectrum analyzer.

Measure  $\text{dBm}$  or  $\text{dB}\mu\text{V}$  at the input connector.  $\text{dBm}$  reading can be converted to RSSI using a table.

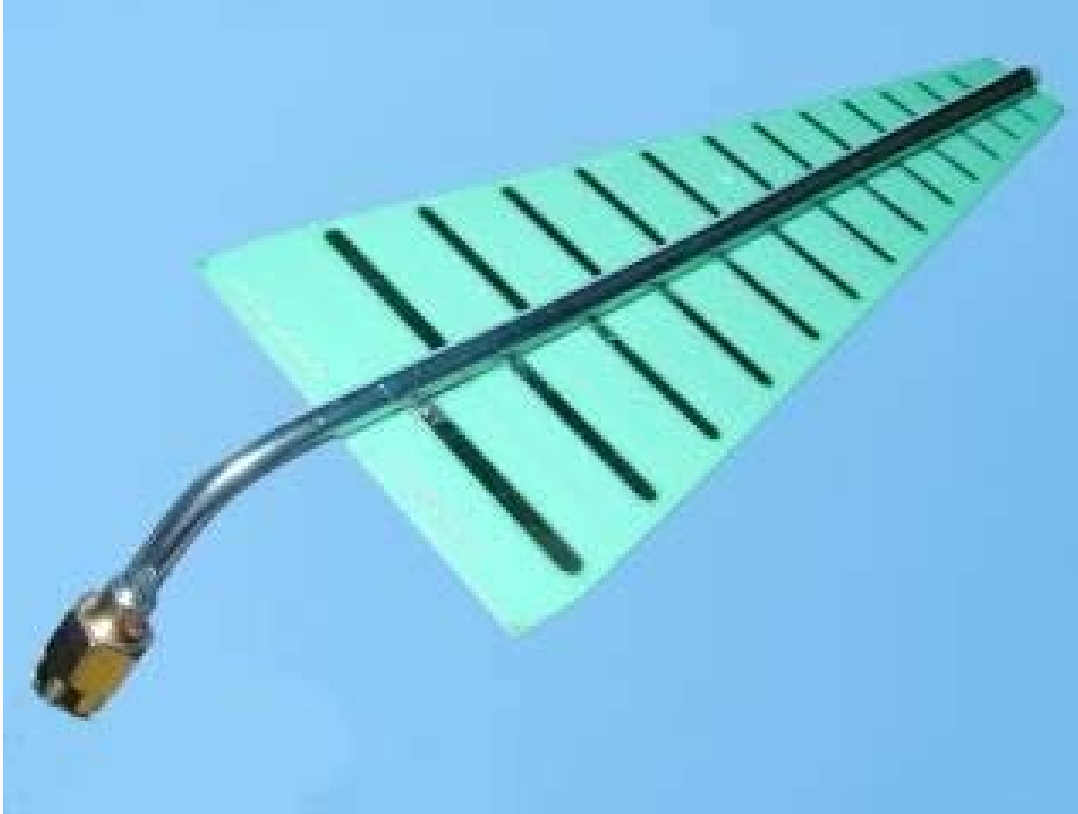
# Full Information on the Screen



# Zoom-In to see an Individual Channel



# Locating Interference Signals



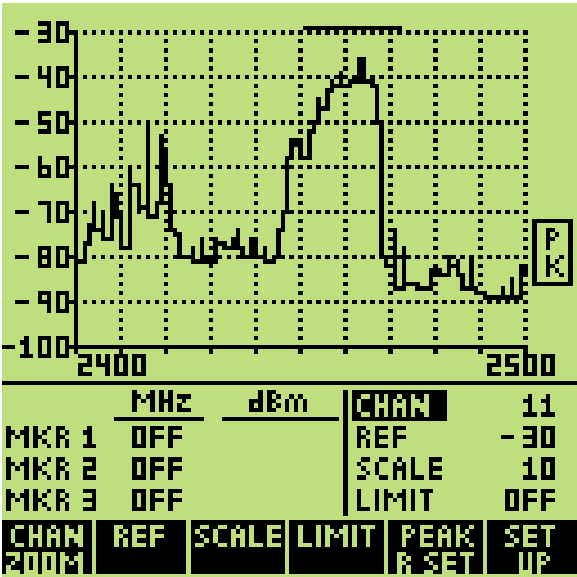
An optional log periodic directional antenna is available which covers 2.4 GHz to 6.0 GHz

This antenna is especially useful for locating unknown interference signals

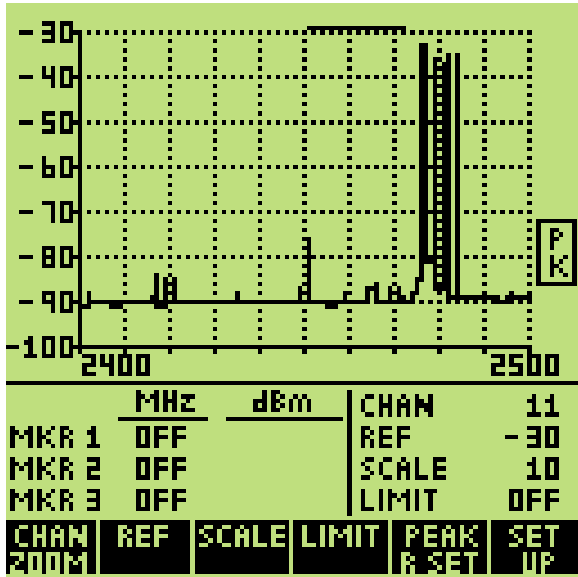


# Identification of Interference

## Typical Interfering Signals



Microwave Oven



Wireless Telephone

# Additional Spectrum Analyzer Features

- 20 internal stored setup memories
- 20 internal measurement trace memories
- Built in HELP function at the press of a button
- Three Frequency Markers
- RS-232 Serial Interface
- PC Enhancement Software

# PC Enhancement Software

- Operates on any WINDOWS environment
- Download Measurement Screens in bitmap format for use in reports and other documents.
- Download frequency and amplitude data for use in EXCEL, MathCad, and other programs.

# Model 424A WLAN Spectrum Analyzer

1.8 to 2.9 GHz Frequency Range

## Includes:

1.8 - 2.9 GHz Antenna

PC Enhancement Software

Serial Interface Cable

100-240 VAC, 50/60 Hz Battery Charger

Soft Carrying Case

Operating Manual

One Year Warranty

Price \$2600 USD

Can be upgraded to add 5.0 - 6.0 GHz band

# Model 425A WLAN Spectrum Analyzer

1.8 to 2.9 and 5.0 - 6.0 GHz Frequency Range

Includes:

5.0 - 6.0 GHz Antenna

1.8 - 2.9 GHz Antenna

PC Enhancement Software

Serial Interface Cable

100-240 VAC, 50/60 Hz Battery Charger

Soft Carrying Case

Operating Manual

One Year Warranty

Price \$4400 USD

The logo for the EE Times ACE Awards. It features the text "EE TIMES" in a small, black, sans-serif font on the left. To its right, the word "ACE" is written in a large, white, serif font, set against a solid red rectangular background. Below this red bar, the word "AWARDS" is written in a very large, bold, black, serif font.

# EE TIMES ACE AWARDS

Bantam Instruments WLAN Spectrum Analyzer has been nominated by eeTimes magazine as test and measurement product of the year for 2004 along with five other finalists. The winner will be announced at the Embedded Systems Conference in San Francisco on March 9, 2005.

# Bantam Contact Information

If you are interested in our products, please contact me (Robert Bathiany) at [RBathiany@BantamInstruments.com](mailto:RBathiany@BantamInstruments.com).

Please put ICTP in the subject line to remind me where I met you. I will likely be able to arrange an additional discount as we have a company philosophy to help developing countries.