



## Application Note

10/26/2009

### How to use Spectrum Screen feature of Super Buddy™ satellite meter

#### Spectrum Screen

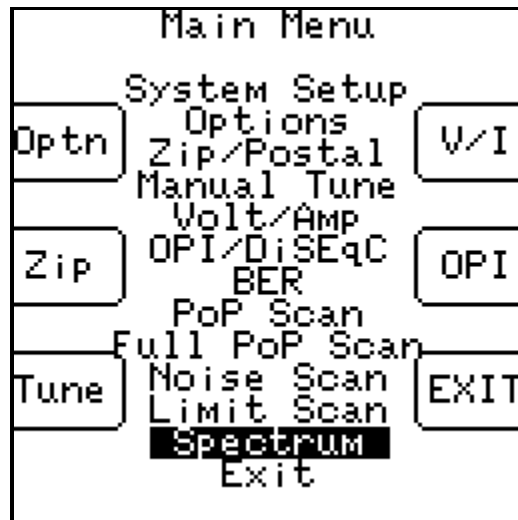
The spectrum screen may be used to:

- Look for the presence of carriers
- Look at a carrier with an incompatible modulation type or encryption
- Optimize your polarity adjustment (null out the opposite polarity)

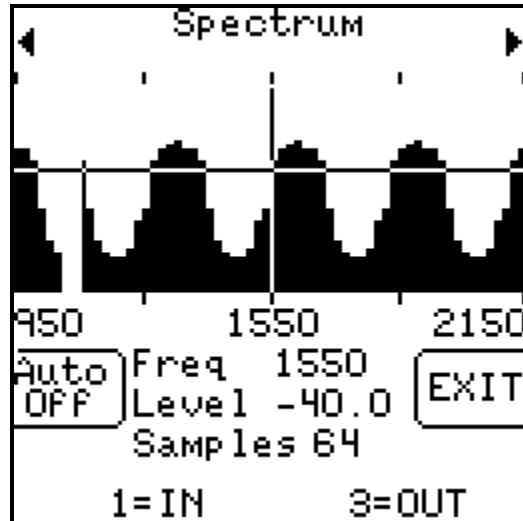
This feature imitates a spectrum analyzer screen although it has less resolution and a much slower sweep rate than an actual spectrum analyzer. This screen has the following features:

- Adjustable frequency span
- Automated level scaling
- Frequency and level cursors
- Adjustable sweep rate

To view the spectrum display, press the MENU soft-key in bottom right hand corner of main Run screen. Then use your up/down arrow keys to highlight "Spectrum" and press the Enter key.



The spectrum screen will start sweeping with the maximum frequency span and amplitude range.



### Cursor Position

Press Up/Down arrow keys to move cursor vertically to different amplitude levels on the y-axis. The level (Level) at the cursor position is shown in the bottom center area of the screen.

Note: Signal Level displayed will depend on whether you have selected dBm, dBmV, or dBμV in the Options menu.

Press Left/Right arrow keys to move cursor horizontally to different frequencies on x-axis. The frequency (Freq) of the cursor position is also shown in the bottom center area of the screen.

Note: Frequency displayed will depend whether you have selected L-Band or downlink in the Options menu.

### Span

Press the 1 key on the numeric keypad to zoom in (less span). This will cut the displayed span in half around the cursor's frequency position. Minimum span is 50 MHz.

Press the 3 key on the numeric keypad to zoom out (more span). This doubles the displayed span around the cursor's frequency position. Full span is from 950 to 2150 MHz.

### Paging

Press the upper left soft-key to "page" to the left, changing the start and stop frequencies (when not at full span). Press upper right soft-key to "page" to the right.

### Amplitude Range

The default amplitude range shown on the spectrum display is -70 to -20 dBm. To change the amplitude range, press the Auto soft-key in bottom left hand corner of LCD screen to turn auto scaling on or off.

This will rescale the amplitude range to the min/max amplitude levels detected during the last sweep. When on, the level scaling will be adjusted to make the measured signal levels more obvious.

### Resolution and Refresh Rate

Press +/- key on numeric keypad to change the sample rate (samples per sweep). You can choose between 32, 64, or 128. 32 samples results in lower resolution and less detail, but a faster sweep. 128 samples results in a higher resolution and more detail, but a slower sweep. By default, the meter measures 64 samples (2 pixels per sample) to create a picture of the power spectrum.

Press EXIT soft-key in bottom right hand corner of LCD screen to return to main Run screen.