



MODEL **3430-LT**

L-Band Beacon Tracking Receiver

VERSION 4



## A Tracking Receiver for Antenna Step Tracking and Automatic Uplink Power Control

The Model 3430-LT Version 4 is the latest release of our reliable series of 3430 Beacon Receivers. With Version 4 firmware we now offer the full L-band range of **950 to 2100 MHz**, Digital level reference setting, ethernet connectivity with M&C control interface, and power up temperature compensation for rapid signal acquisition. Frequency selection on 10 kHz steps may be accomplished from the front panel or via remote control. Pre-detection noise bandwidth of 50 kHz (or factory option of 25 kHz) facilitates accurate tracking at very low C/N levels.

- Wide bandwidth, 950 to 2100 MHz standard
- Digital level reference setting, -40 to -100 dBm on 0.5 dB steps
- Ethernet connectivity with M&C control interface
- **NEW Version 2.0** M&C control interface allows for remote monitoring from one or multiple locations
- RS-232/422/485 and Ethernet all Standard
- Temperature stabilization compensation

The output of the Beacon Receiver is a DC voltage proportional to the input signal level to facilitate both antenna tracking control and automatic power control. A loss-of-carrier indicator is provided in the event the tracking signal is lost. Form "C" relay contacts provide an external loss-of-carrier alarm. A front panel VFD or SSC GUI (via your computer) displays operating frequency, relative signal level, carrier lock or alarm, and input level.

### Specifications:

|                                  |   |
|----------------------------------|---|
| <b>Input Frequency</b>           | 950 - 2100 MHz  |
| <b>Input Level</b>               | -40 to -90 dBm typical  |
| <b>Level Adjust</b>              | Digital, 0.5 dB steps   |
| <b>Level Accuracy</b>            | ±0.4 dB per step<br>±4 dB over entire range   |
| <b>Tracking Slope</b>            | 0.5 V/dB  |
| <b>Tracking Linearity</b>        | ±0.25 dB  |
| <b>Frequency Selection</b>       | 10 kHz steps  |
| <b>Min. Input Level for Lock</b> | -110 dBm  |
| <b>Input Connector</b>           | Type "N" Female, 50 ohm   |
| <b>Threshold</b>                 | 4 dB C/N for acquisition<br>< 1 dB C/N for carrier lock   |
| <b>Tracking Response</b>         | 0 to +10 VDC over 20 dB input range standard <sup>(2)</sup>   |
| <b>Alarms</b>                    | Form-C relay contacts   |
| <b>AFC</b>                       | ±25 kHz <sup>(3)</sup>  |
| <b>Noise Bandwidth</b>           | 50 kHz  |
| <b>M&amp;C</b>                   | RS-232 or RS-422/485<br>Ethernet 10/100 Base T<br>Continuous Data Streaming Option<br><i>Streaming signal strength output via a dedicated RS-232 DB-9 connector</i> |
| <b>M&amp;C Connector</b>         | DB-9 Female & RJ-45 Connector   |
| <b>MECHANICAL:</b>               |   |
| <b>Output Connector</b>          | Modular Socket & Plug (for ACU and UPC)   |
| <b>Dimensions</b>                | 1 RU, 19" x 16" x 1.75"   |
| <b>POWER:</b>                    |   |
| <b>Prime Input Power</b>         | 90-260 VAC, 47-63 Hz, Auto-sensing, 45 Watts max  |
| <b>LNB Power</b>                 | +24 Volts @ 1 Amp available on center conductor<br>Selectable In/Out <sup>(4)</sup>   |

**For additional options, contact customer service:**

- (1) Other Input Connectors (2) Other Ranges Available  
(3) Other AFC Options (4) Other Power Options

Contact Us

**Radeus Labs, Inc.** • (858) 391-1255 • Sales@radeuslabs.com  
12720 Danielson Ct. • Poway, CA 92064 USA • www.radeuslabs.com



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### Features & Options

Enhanced control features and additional monitoring tools are included along with strip charting for signal strength, AFC, and temperature.

Version 2.0 also includes a new event-triggered alarm feature that allows for email notification to your laptop or cell phone. Alarms are triggered via signal strength, loss of signal, and AFC conditions.

### Part Numbering: Typical part number 3430-LT00N

|                            |                |
|----------------------------|----------------|
| <b>BASE MODEL</b>          | 3430           |
| <b>BAND</b>                | LT             |
| <b>FREQUENCY RANGE*</b>    | 950 - 2100 MHz |
| <b>AFC &amp; FILTERING</b> | 0, A, S, or T  |
| <b>BANDWIDTH</b>           | 0 or 5         |
| <b>INPUT CONNECTOR</b>     | N, B, Q, or S  |

\*Other frequency ranges are available. Please see [www.radeuslabs.com](http://www.radeuslabs.com) for more information.

### Valid Options:

|                             |  |
|-----------------------------|--|
| <b>AFC &amp; FILTERING:</b> |  |
| <b>O</b>                    | Standard AFC. Standard 0.4 Hz output smoothing filter.                                 |
| <b>A</b>                    | No AFC – Use for tracking wide data carriers. Standard 0.4 Hz output smoothing filter. |
| <b>S</b>                    | No AFC and No 0.4 Hz output smoothing filter.  |
| <b>T</b>                    | Standard AFC. No 0.4 Hz output smoothing filter.                                       |

|                   |                                |
|-------------------|--------------------------------|
| <b>BANDWIDTH:</b> |                                |
| <b>0</b>          | 50 kHz Pre-detection bandwidth |
| <b>5</b>          | 25 kHz Pre-detection bandwidth |

|  |                             |
|--|-----------------------------|
| <b>INPUT CONNECTOR ON REAR OF BTR:</b> |                             |
| <b>N</b>                               | 50 ohm N female connector   |
| <b>B</b>                               | 50 ohm BNC female connector |
| <b>Q</b>                               | 50 ohm TNC female connector |
| <b>S</b>                               | 50 ohm SMA female connector |

|                               |                                   |
|-------------------------------|-----------------------------------|
| <b>M&amp;C:</b>               |                                   |
| <b>RS-232</b>                 |                                   |
| <b>RS-422/485</b>             |                                   |
| <b>Ethernet 10/100 Base T</b> | with SSC graphical user interface |
| <b>Optional</b>               | Continuous data streaming         |



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