



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

The Model 3430-X Version 4 is the latest release of our reliable series of 3430 Beacon Receivers. The Model 3430-X features an input of **7.25 – 7.75 GHz**, 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.

- 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>	7.25 – 7.75 GHz
<b>Input Level</b>	-30 to -90 dBm typical
<b>Level Adjust</b>	Digital, 0.5 dB steps
<b>Level Accuracy</b>	±0.4 dB per step ±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>X-to-L Band Conversion</b>	Internal
<b>Min. Input Level for Lock</b>	-105 dBm
<b>Input Connector</b>	Type “N” Female, 50 ohm <sup>(1)</sup>
<b>Threshold</b>	4 dB C/N for acquisition < 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 Ethernet 10/100 Base T Continuous Data Streaming Option <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 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

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# MODEL 3430-X

## X-Band Beacon Tracking Receiver

VERSION 4



### 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-X000N

<b>BASE MODEL</b>	3430
<b>BAND</b>	X
<b>CONVERSION TYPE</b>	0
<b>FREQUENCY RANGE*</b>	7.25 - 7.75 GHz
<b>AFC &amp; FILTERING</b>	O, 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:

#### AFC & FILTERING:

- O** Standard AFC. Standard 0.4 Hz output smoothing filter.
- A** No AFC – Use for tracking wide data carriers. Standard 0.4 Hz output smoothing filter.
- S** No AFC and No 0.4 Hz output smoothing filter.
- T** Standard AFC. No 0.4 Hz output smoothing filter.

#### BANDWIDTH:

- 0** 50 kHz Pre-detection bandwidth
- 5** 25 kHz Pre-detection bandwidth

#### INPUT CONNECTOR ON REAR OF BTR:

- N** 50 ohm N female connector
- B** 50 ohm BNC female connector
- Q** 50 ohm TNC female connector
- S** 50 ohm SMA female connector

#### M&C:

- RS-232**
- RS-422/485**
- Ethernet 10/100 Base T** with SSC graphical user interface
- Optional** Continuous data streaming



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