

# Model 3430-X

## X-Band Beacon Tracking Receiver

*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** 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

Input Frequency .....	7.25- 7.75 GHz
Input Level .....	-30 to -90 dBm typical
Level Adjust .....	Digital, 0.5 dB steps
Level Accuracy .....	±0.4 dB per step
	..... ±4 dB over entire range
Tracking Slope .....	0.5 V/dB
Tracking Linearity .....	±0.25 dB
Frequency Selection .....	10 kHz steps
X to L band conversion .....	Internal
Min. input level for Lock .....	-105 dBm
Input Connector .....	Type "N" Female, 50 ohm*
Threshold .....	4 dB C/N for acquisition
	< 1 dB C/N for carrier lock
Tracking Response .....	0 to +10 VDC over 20 dB input range standard
	other ranges optional****
Alarms .....	Form-C relay contacts
AFC .....	±25 kHz**
Noise Bandwidth .....	50 kHz
M&C.....	RS-232 or RS-422/485
	.....Ethernet 10/100 Base T
	.....Continuous Data Streaming option/ streaming signal strength output via a dedicated RS-232 DB 9 connector
M&C Connector .....	DB-9 Female & RJ 45 Connector

**MECHANICAL:**

Output Connector ..... Modular socket & plug  
Dimensions ..... 1 RU, 19" x 16" x 1.75"

**POWER:**

Prime Input Power ..... 90-260 VAC, 47-63 Hz,  
auto-sensing, 45 Watts max

LNB Power ..... +24 Volts @ 1 Amp available on center conductor  
Selectable In/Out\*\*\*

- \* Other input connectors available please contact SSC
- \*\*\* Other power options available please contact SSC

- \*\* Other AFC options available please contact SSC
- \*\*\*\* Other ranges available please contact SSC

**Valid Options**

**AFC and Filtering**

- O Standard AFC and 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 No 0.4 Hz output smoothing filter. Standard AFC.

**Bandwidth**

- O 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



**Part Numbering**

Typical part number 3430-X000N

Base Model	BAND	Conversion Type	Frequency Range	AFC & Filtering	Band-width	Input Connector
3430	X	0	7.25 – 7.75 GHz	0, A, S, or T	0 or 5	N, B, Q or S

Other Frequency Ranges are available.

Please see <http://www.satsyscorp.com> for more information.

Satellite Systems announces the new control GUI version **2.0** for our Beacon Receiver Product line. 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.

