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# Model 3434-CH

## C-Band Beacon Tracking Receiver

### Version 4

*A tracking receiver for antenna step tracking and automatic uplink power control with Accu-trac for high frequency drift applications.*

The Model 3434-CH Version 4 is the latest release of our reliable series of 3434 Beacon Receivers. With Version 4 firmware the Model 3434-CH has an input of **3.4 - 4.2 GHz\*\*\*\***, Digital Level reference setting, Ethernet connectivity with M&C control interface, and power up temperature compensation for rapid signal acquisition. The 3434 series now offers our proprietary *Accu-trac* search and acquire AFC feature with several search bandwidths up to  $\pm 800$  kHz. 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 for use with either CW or BPSK carriers.

- ★ AFC disable option for wide data carrier applications
- ★ Digital level reference setting, -30 to -90 dBm on 0.5 dB steps
- ★ Accu-trac signal tracking feature for high drift LNB applications with selectable acquisition bandwidths up to  $\pm 800$  kHz
- ★ RS-232/422/485 and Ethernet, control interface, all Standard / Front panel selectable
- ★ Dual signal strength output / 2 identical analog outputs for simultaneous antenna tracking and UPC control

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 .....	3.4 - 4.2 GHz
Input Level .....	-30 to -90 dBm typical
Level Adjust .....	Digital, 0.5 dB steps
Level Accuracy .....	$\pm 0.4$ dB per step
.....	$\pm 4$ dB over entire range
Total composite input level.....	-15 dBm maximum
Tracking Slope .....	0.5 V/dB
Tracking Linearity .....	$\pm 0.25$ dB
Frequency Selection .....	10 kHz steps
C to L 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 .....	$\pm 25$ kHz**
AFC disable.....	For Wide data carrier applications
Accu-trac sweep widths .....	disable & user selectable bandwidths from $\pm 50$ kHz to $\pm 800$ kHz
Noise Bandwidth .....	50 kHz
Modulation type .....	CW or BPSK up to 8 kbps
Output – dual signal strength analog output .....	Modular socket & plug
M&C .....	RS-232 or RS-422/485
.....	Ethernet 10/100 Base T / Front panel selectable
.....	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
.....	Dedicated DB9 with CDS option
Output Connector .....	Modular socket & plug
Dimensions .....	1 RU, 19" x 16" x 1.75"
Prime Input Power .....	90-260 VAC, 47-63 Hz,
.....	auto-sensing, 45 Watts max

\* 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



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**Sweep Widths for Accu-trac signal tracking feature for high frequency drift applications.**  
 Accu-trac features can be selected from the front panel or via remote mode. Disabled or active selected by user.

Disabled	±50 kHz	±75 kHz	±100 kHz	±150 kHz	±200 kHz	±250 kHz
±300 kHz	±400 kHz	±500 kHz	±600 kHz	±700 kHz	±800 kHz	

### Valid Options

#### AFC and Filtering

- 0 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

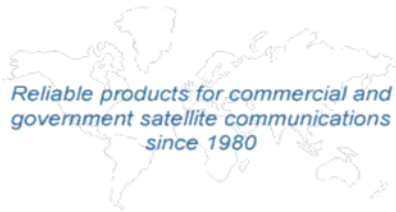
- 0 50 kHz pre-detection bandwidth
- 5 25 kHz pre-detection bandwidth

#### 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

#### Options

- Blank No CDS
- C Optional Continuous Data Streaming



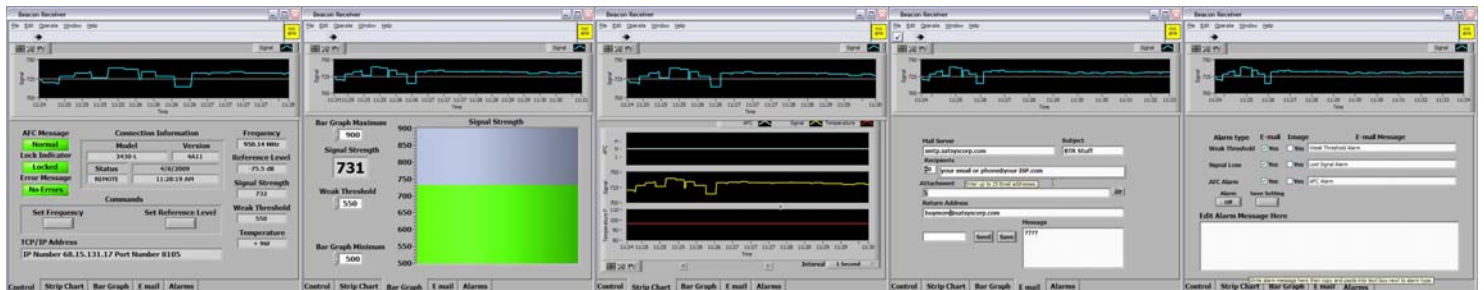
### Part Numbering Typical part number 3434-CH00N

Frequency Range	Base Model	BAND	AFC & Filtering	Band-width	Input Connector	M&C
3.4 - 4.2 GHz	3434	CH	0, A, S, or T	0 or 5	N, B, Q, or S	Blank or - C

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.



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