



Satellite Systems Corporation
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Model 3430-IF

IF-Band Beacon Tracking Receiver

70 MHz and 140 MHz IF band applications w/ **Version 4**

A tracking receiver for antenna step tracking and automatic uplink power control

The Model 3430-IF Version 4 is the latest release of our reliable series of 3430 Beacon Receivers. The Model 3430-IF features an input of **50-200 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.

- ★ 50 to 200 MHz standard input for 70 MHz and 140 MHz IF band applications
- ★ Digital level reference setting, -10 to -70 dBm on 0.5 dB steps
- ★ Ethernet connectivity with M&C control interface
- ★ 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 | 50 - 200 MHz |
| Input Level | -10 to -70 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 |
| Min. input level for Lock | -85 dBm |
| Input Connector | Type "BNC" 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 |

* Other input connectors available please contact SSC
 ** Other AFC options available please contact SSC
 **** Other ranges available please contact SSC



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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

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-IF00N

| Base Model | BAND | Frequency Range | AFC & Filtering | Band-width | Input Connector |
|------------|------|-----------------|-----------------|------------|-----------------|
| 3430 | IF | 50-200 MHz | 0, A, S, or T | 0 or 5 | N, B, Q, or S |

Other Frequency Ranges are available.
 For L band applications, please see our Model 3430-L
 Please see <http://www.satsyscorp.com> for more information.

Figure 1. User interface example

