



# Model 3430-IF IF-Band Beacon Tracking Receiver

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



The Model 3430-IF is a fully frequency agile satellite receiver designed to provide a linear DC reference voltage proportional to the received signal level of a satellite beacon or narrow-band SCPC carrier. Frequency selection on 10 kHz steps may be accomplished from the front panel or remote control. Pre-detection noise bandwidth of 50 kHz facilitates accurate tracking at very low C/N levels.

## Model and Frequency Range Selection Table

<b>3430-IF</b>	50 to 200 MHz	70 MHz and 140 MHz IF-Band applications
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*Reliable products for commercial and government satellite communications since 1980*

### Version 3 Firmware Features:

- RS-232 / RS-485 are both included and selected via front panel menu options.
- Available baud rates of 1200, 2400, 4800, 9600 and 19200 are selected via front panel menu options.
- Extended RS-485 addressing range of hexadecimal 01 - FF.
- Remote Port polling active in Local Mode.



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# Model 3430-IF

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The output of the Beacon Receiver is a DC voltage proportional to the input signal level to facilitate both 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 external Loss of Carrier Alarm. A front panel VFD displays operating frequency, relative signal level, carrier lock or alarm and input level.

### Specifications

Input Level .....	-15 to -40 dBm typical
Input Frequency .....	50 to 200 MHz
Tracking Slope .....	0.5 V/dB
Tracking Linearity .....	0.25 dB
Frequency Selection .....	10 kHz steps
Min. input level for Lock .....	-50 dBm
BTR 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
Alarms .....	Form-C relay contacts
AFC .....	±25 kHz
Noise Bandwidth .....	50 kHz

**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
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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.

#### **Part Numbering**      Typical part number 3430-IF00B

Base Model	Band	AFC & Filtering	<u>Band-width</u>	<u>Input Conn</u>
3430	IF	0, A, S, or T	0 or 5	N, B, or Q

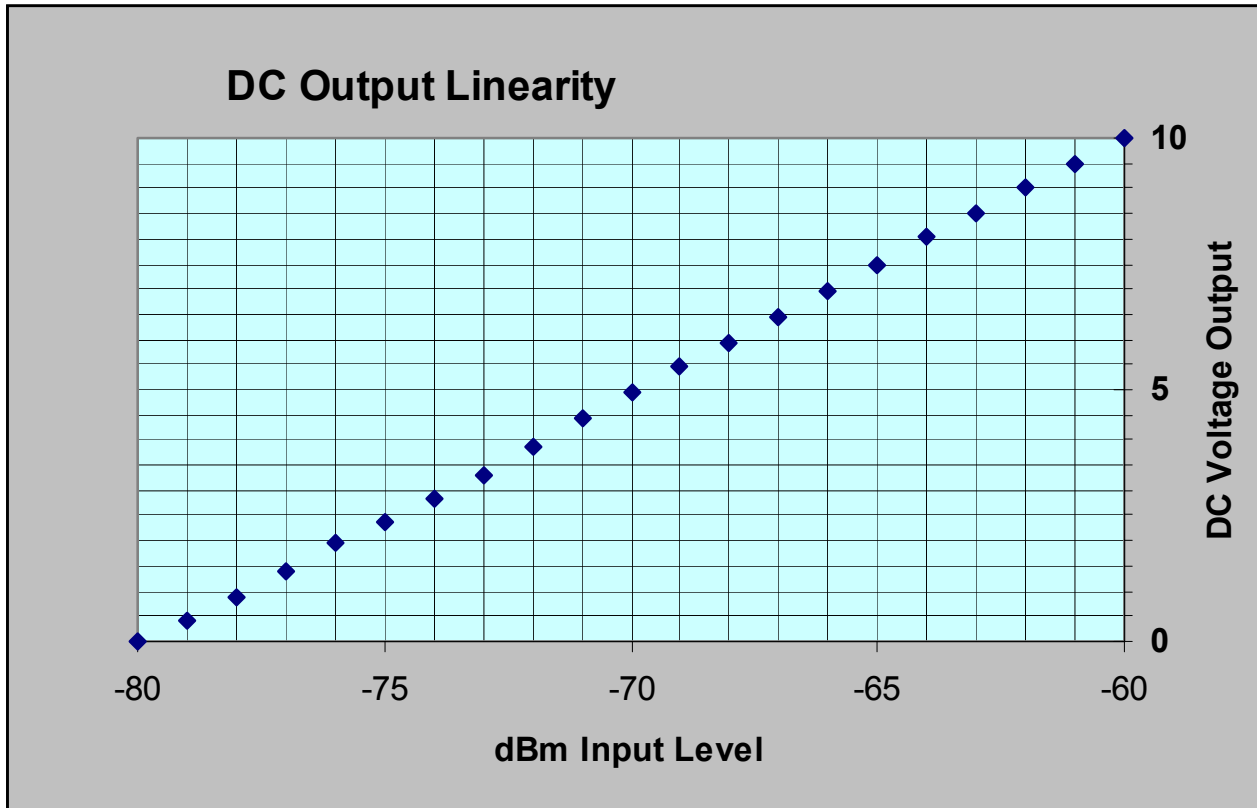
**Other Frequency Ranges are available.**

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



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