



Model 3430-X X-Band Beacon Tracking Receiver

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



The Model 3430-X 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

3430-X	7.25 to 7.75 GHz	Internal BDC	X-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.



Satellite Systems Corporation
 101 Malibu Drive Virginia Beach, VA 23452 USA
 Voice (757) 463-3553 Fax (757) 463-3891
 sales@satsyscorp.com

Model 3430-X

X-Band Beacon Tracking Receiver

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	-55 to -90 dBm typical
Input Frequency	7.25 to 7.75 GHz
Tracking Slope	0.5 V/dB
Tracking Linearity	0.25 dB
Frequency Selection	10 kHz steps
Min. input level for Lock	-110 dBm
BTR 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
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
LNB Power	+24 Volts @ 1 Amp available on center conductor Selectable In/Out



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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.

Part Numbering Typical part number 3430-X00N

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

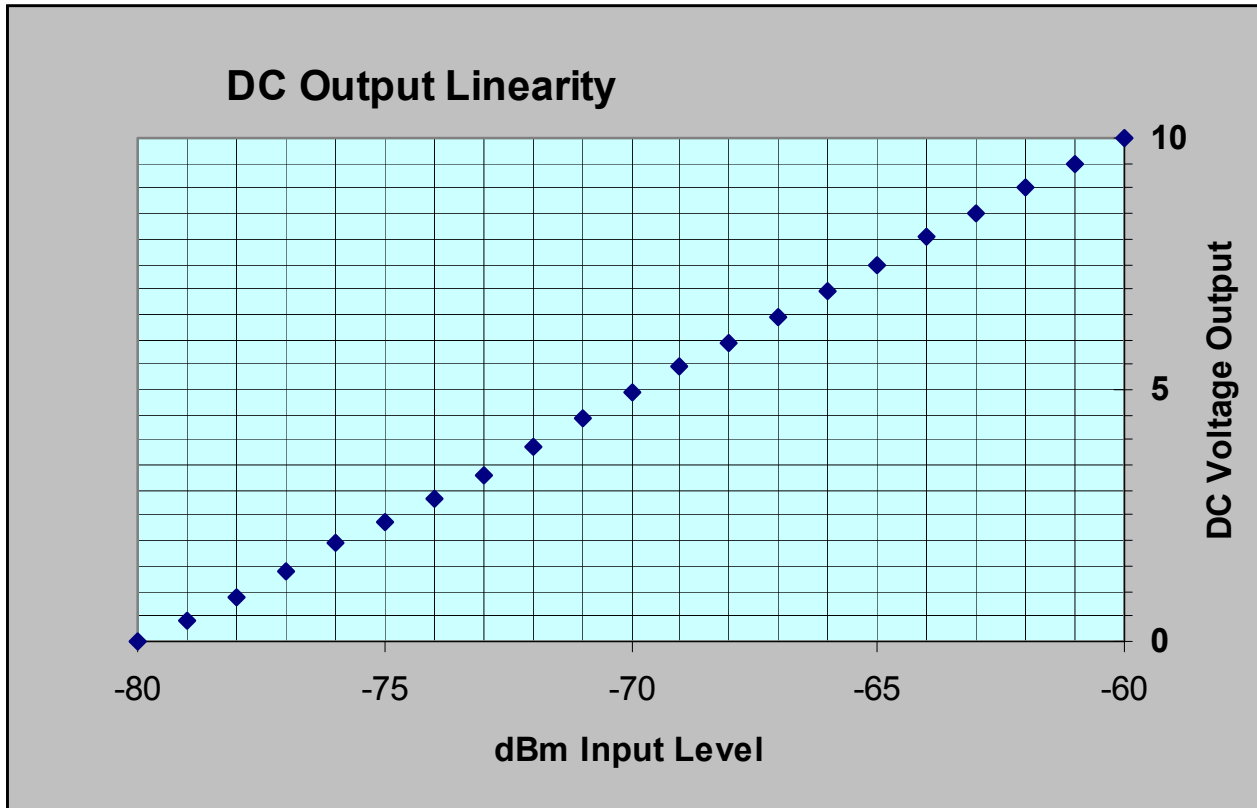
Other Frequency Ranges are available.

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



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