

Beacon Tracking Receivers



Satellite Systems Corporation's 3400 Series Beacon Receivers operate at input frequencies:

Model 3430	949 - 1455 MHz
Model 3430C	3.625 - 4.2 GHz
Model 3470	67.5 - 72.5 MHz

For Ku input frequencies, SSC offers downconverters from 10.95~11.7, 11.7~12.2 or 12.25~12.75 GHz to L-band for use with SSC's Model 3430 receiver.

SSC's Beacon Receivers provide a linear DC signal strength voltage reference for earth station antenna tracking and uplink power control.

The Model 3430 and 3430C Beacon Receivers are frequency agile for tuning any satellite beacon signal or narrow-band SCPC channel on 10 KHz steps across the full 500 MHz band. Pre-detection noise bandwidth of 50 KHz facilitates accurate tracking at very low C/N levels..

The output of the Model 3430 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 LCD displays operating frequency, relative signal level, carrier lock or alarm and input level. Operating frequency and input gain are adjustable from the front panel or by remote Monitor and Control serial interface.

Unit Specifications

Input Frequency	
3430C	3625 - 4200 MHz
3430	949 - 1455 MHz
3470	67.5 - 72.5 MHz

Input Level, front panel adjustable:	for +7.5VDC Output
3430, 3430C:	-60 to -85 dBm typical
3470	-35 to -55 dBm typical

Tracking Response 0 to +10 VDC
over 20dB input range

Tracking Slope	0.5V/dB
Tracking Linearity	0.25dB
3430, 3430C	-75 to -60 dBm input
3470	-55 to -40 dBm input

Frequency Selection	Local or remote
3430, 3430C	500 MHz on 10 KHz steps
3470	67.5 - 72.5 MHz on 10 KHz steps

Threshold 4 dB C/N for acquisition
< 1 dB C/N for carrier lock

Min. input level for Lock	-105dBm
Alarms	Local/Alarm Display Form-C relay contacts

AFC	±25 KHz,
Noise Bandwidth	50 KHz

MECHANICAL:

Input Connector	3430C: Type "N" 50 ohm 3430: Type "F" 75 ohm ("N" 50 ohm optional) 3470: Type "BNC" 75 ohm
Output Connector	Modular socket & plug
M&C Connector	DB-9, Female
M&C Interface	RS-232 or RS-485 (4 wire) 2400 baud

DIMENSIONS: Single 19" rack unit, 16" deep
POWER 110/230 VAC 40-60 Hz
auto-sensing



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