



High performance beacon receiver for step track and uplink power control applications.

The Model RL3500 is the latest release in our line of high performance Beacon Receivers. The 3500 is a fully synthesized, hybrid analog/digital beacon receiver blending state of the art with proven reliability. With an L-band range of **930 to 2300 MHz**, Digital Level reference setting, serial M&C interface, and power up temperature compensation for rapid signal acquisition, the 3500 provides some high end features in a modest single rack form factor. Further the 3500 has a 1kHz tuning resolution, a wide range of software selectable detection bandwidths and Accu-track searchable bandwidths to accommodate frequency drift in tracking beacons.

- Non-coherent, FFT detection method
- BNC reference output on front panel
- **5G ready**, multiple acquisition bandwidths to reduce impact of ranging and modulation
- Output smoothing to minimize effects of carrier amplitude variance
- Larger 2x20 display
- Ethernet connectable GUI
- Serial M&C control interface for remote control
- Front panel selectable LOs for use with an external LNB/BDC
- 1 kHz tuning steps

Specifications:

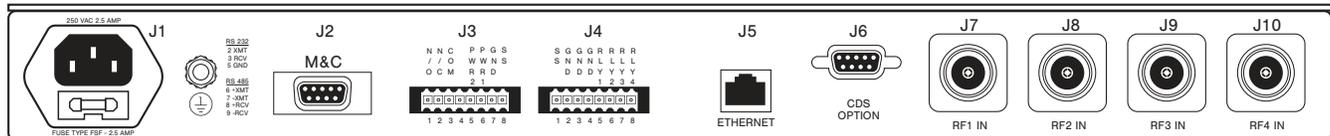
Input Frequency	930 - 2300 MHz
Input Level	-40 to -100 dBm typical
Level Adjust	Digital, 0.5 dB steps
Tracking Slope	0.25, 0.5, 1.0 V/dB, software selectable
Tracking Linearity	±0.25 dB
Frequency Selection	1 kHz steps
Min. Input Level for Lock	-115 dBm
RF Input Connector	Up to qty. 4 type "N" female, 50 ohm connectors
Sensitivity (C/N₀)	40 dB-Hz
Tracking Response	0 to +10 VDC over 20 dB input range
Alarms	Form-C relay contacts
Pre-detection Bandwidths	2.5, 4, 15, 25, 50, 280 kHz, software selectable Ethernet 10/100 RJ-45 Jack
AccuTrack Searchable Bandwidths	+/- 50kHz, +/-75kHz, +/-100kHz, +/-150kHz, +/-200kHz, +/-250kHz, +/-300kHz, +/-400kHz, +/-500kHz, +/-600kHz, +/-700kHz, +/-800kHz
Remote M&C	RS-232 or RS-422/485 DB-9 Female
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 with current monitoring. Selectable In/Out ⁽¹⁾
L-Band	930 - 2300 MHz
C-Band	3.4 - 4.2 MHz
Ku-Band	10.70 - 12.75 MHz

For additional options, contact customer service:
(1) Other Power Options

Contact Us

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The output of the Beacon Receiver is a DC voltage proportional to the input signal level to facilitate both antenna control and uplink power control applications. "Loss of Carrier" indication is provided in the event the tracking signal is lost via form "C" relay contacts. A larger front panel LCD or network based GUI displays the beacon frequency, relative signal level, carrier lock or alarm, and input signal level.



Part Numbering: Typical part number 3500-L1N, 3500-Ku4S

BASE MODEL	3500
BANDS	L, S, C, X, Ku, Ka
NUMBER OF RF INPUTS @ BAND	1, 2 & 4 input options
INPUT CONNECTOR	N = N Type, S = SMA, F= F Type

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