



## Model ASC 300L-D (950 MHz to 2300 MHz) Beacon Receiver

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### Functional Description

The Model ASC300L-D Beacon Receiver is designed for data tracking with side band rejection. This is a high performance unit that is designed to real time track the power density of a satellite beacon and output a DC voltage that is linearly proportional to the beacon power. The applications for the ASC300L-D are for antenna step track controlling and uplink power control system.

### Systems Specifications

Input Frequency.....950 MHz to 2300 MHz  
 Gain Stability .....± 1 dB, 0 to 50 deg. C  
 Pre-detection Bandwidth (1) ..... 60 kHz  
 Input Level.....-90 dBm, min.; -30 dBm max.  
 ..... For full tracking range capability  
 Frequency Tuning..... 10 kHz Steps  
 Frequency Adjust.....Front Panel or Remotely  
 Threshold Alarm.....adjustable on 0.1V (0.2 dB) Steps  
 from front panel  
 Input Impedance.....50 Ohm  
 Input Connector ..... Type-N, Female  
 Output Impedance ..... 100 Ohm, single ended  
 Output Connector ..... Terminal plug and BNC Female  
 Tracking Gradient ..... 0.5 V/dB, Std  
 Tracking Response..... 0 to +10 VDC  
 ..... for a 20 dB input level change  
 System Level Adjust .....0 to 60dB, 0.5dB Steps  
 Frequency Stability ..... ± 0.5 ppm  
 Frequency Reference ..... 10 MHz (Internal)  
 Phase Noise ..... >75 dB-Hz, 1 kHz from Carrier  
 Alarms ..... Unit Lock

Alarm Relay .....Form-C  
**Optional:** External LNB Power ..... +18 VDC, switchable  
 In-Out, .300 ma, max. .... +15 and +24 VDC **Optional**  
 Continuous Digital Streaming (CDS).....DB-9, RS-232  
 .....(**Optional**) See Below \*  
 Front Panel Display..... Vacuum Fluorescent  
 M&C ..... RS-232 or RS-485 Switchable on rear panel  
 M&C Connector .....DB-9, Female  
**Optional:** 10/100 Fast Ethernet  
 Ethernet Interface ..... RJ-45 Jack connector  
 Ethernet Protocol .....TCP/IP, UDP,  
 HTTP,SNMP,ARP,Telnet,ICMP,BOOTP, DHCP,SMTP

### Physical Characteristics

Size ..... 1.75"H X 16.00"D X 19.00"W  
 Weight..... 8 lb. (3.63 kg)  
 Primary Power ..... 90 - 264 VAC 47 - 63Hz, 1.4 A  
 ..... AutoSensing

### Environmental Specifications:

Operating Temperature.....0<sup>o</sup>c to +50<sup>o</sup>c  
 Storage Temperature.....-40<sup>o</sup>c to +70<sup>o</sup>c  
 Humidity..... 95% RH@ 40<sup>o</sup>c

**Note: (1) Requires ± 25 KHz Downlink Stability**



### \* CDS Continuous Digital Streaming

The streaming option associated with the ASC300 series of beacon tracking receivers provides a continuous, two byte, data stream running at 9600 baud that contains twelve bits of signal strength level indication as well as lock or alarm condition of the unit. Other baud rates are available. A female DB9, RS-232, interface connector on the rear of the unit is specifically dedicated for this option.