

Model ASC300LW (930 MHz to 2300 MHz) Beacon Receiver

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Functional Description

The Model **ASC300-LW Beacon Receiver** 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 by utilizing a true, RMS-responding power detector. The applications for the ASC300-LW are for antenna step track controlling and uplink power control system. Also can be used on telemetry beacons.

Systems Specifications

Input Frequency..... 930 MHz to 2300 MHz
Warm up from cold start..... Within 1 dB in < 2 minutes
Temperature Stability..... ± 1.5 dB, 0 to 50 deg C
 Pre-detection Bandwidth 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
 C/N₀ ≤45 dB-Hz for capture
 AFC ±30 kHz
 Image Rejection..... >40 dB, 930 to 2300MHz
 Input Impedance (**Note 1**) 50 Ohm
 Input Connector (**Note 1**)..... Type-N, Female
 Output Impedance 100 Ohm, single ended
 Output Connector Terminal plug and BNC Female
 Tracking Gradient 0.5 V/dB
 Tracking Response..... 0 to +10 VDC
 for a 20 dB input level change
 System Level Range 60 dB
 System Level Adjust..... 0 to 60dB, 0.5dB Steps
 Frequency Stability <1 ppm, 0^oc to +50^o c
 Phase Noise >75 dB-Hz, 1 kHz from Carrier
 Alarms Unit Lock
 Alarm Relay Form-C

External LNB Power +18 VDC, Switched, In/Out, 500 ma, max
 +15 VDC (**Optional**)
 CDS (**Optional**)..... DB-9, RS-232
 Front Panel Display..... Vacuum Fluorescent
 M&C RS-232 & RS-422/485 switched on rear panel
 M&C Connector..... DB-9, Female
 Ethernet 10/100 Base T (**Optional**) RJ-45 Jack connector
 1) Ethernet without SNMP support (**Optional**)
 2) Ethernet with SNMP V2 and MIB file (**Optional**)

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^oc to +50^o c
 Storage Temperature - 40^oc to +70^o c
 Humidity 95% RH@ 40^o c

Options

Note 1: 75 Ohm F female or 50 Ohm SMA female are available.
 Call or Email Factory

(Optional) CDS, Continuous Digital Streaming

The streaming option associated with the ASC300 series of beacon receivers provides a continuous, two byte, data stream running at 9600 baud that contains ten 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.

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