

Model ASC 300-LW (950 MHz to 2300 MHz) Beacon Tracking Receiver

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Functional Description

The Model **ASC300-LW Beacon Tracking 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 proprietary “**SWEEP TRAC**” option provide signal tracking capability for higher drift LNB's. The applications for the ASC300-LW are for antenna step track controlling and uplink power control system.

Systems Specifications

Input Frequency950 MHz to 2300 MHz
 Pre-detection Bandwidth..... 50 kHz
 Input Level-85 dBm, min.; -25 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 (**Note 1**) +23kHz
 Image Rejection.....>40 dB, 950 to 2300MHz
 Input Impedance (**Note 2**)..... 75 Ohm
 Input Connector (**Note 2**)..... Type-F, Female
 Output Impedance 100 Ohm, single ended
 Output Connector Terminal plug and BNC Female
 Tracking Gradient0.5 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
 Frequency Reference 10 MHz (Internal)
 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
 CDS (**Option A**)DB-9, RS-232 or RS-422
 Front Panel Display Vacuum Fluorescent
 M&C RS-232 or RS-422/485 switched on rear panel
 M&C Connector..... DB-9, Female
 Ethernet 10/100 Base T (**Option B**).....RJ-45 Jack connector

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
 Humidity95% RH@ 40^o c

Options

Note 1: Up to ± 100kHz with Proprietary “sweep trac” automatic frequency capture. Customer specified tracking range. Less than 6 sec. Capture time at ± 100kHz tracking.

Note 2: 50 Ohm N or SMA Type, available. Call or Email Factory

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(Option A) 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 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 or RS-422, interface connector on the rear of the unit is specifically dedicated for this option.