ATLANTIC SATELLITE CORPORATION

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Model ASC 300-L (950 MHz to 2050 MHz) Beacon Tracking Receiver

Quality Products @ Reasonable Prices

Functional Description

The Model **ASC300–L 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 applications for the **ASC300-L** are for antenna step track controlling and uplink power control system.

Systems Specifications

Input Frequency…………950 MHz to 2050 MHz
Pre-detection Bandwidth………………….40 kHz
Input Level………..-80 dBm, min.; -50 dBm max.
　　　　　For full tracking range capability
Frequency Tuning…………………10 kHz Steps
Frequency Adjust……..Front Panel or Remotely
AFC…………………………………………$\pm$20kHz
Threshold……..<45 dB-Hz (C/N_0) for acquisition
Input Impedance………………………….75 Ohm
Input Connector………………....Type-F, 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……………….30 dB, Linear
Frequency Stability………<1 ppm, 0^0c to +50^0c
Frequency Reference…………10 MHz (Internal)
Phase Noise…….>75 dB-Hz, 1 kHz from Carrier

Alarms……………………………………….Unit Lock
Alarm Relay………………………………...Form-C
External LNB Power……+24 VDC, switchable In-Out, .500 ma, max.　　　　+15 and +18 VDC Optional
Continuous Digital Streaming (CDS)….DB-9, RS-232
　　　　　　　　　(optional) See Below *
Front Panel Display……………..Vacuum Fluorescent
M&C……..RS-232 or RS-422/485 Switchable on rear panel　　　　Ethernet 10/100 Base T (**Optional**)
M&C Connector……………………….DB-9, Female
　　　　　　　　　　　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…………………..0^0c to +50^0c
Storage Temperature…………………..-40^0c to +70^0c
Humidity……………………………...95% RH@ 40^0c

* 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 2400 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.

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