

Model ASC 300-70 Beacon Tracking Receiver

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Functional Description

The Model **ASC300-70 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 **ASC300-70** are for antenna step track controlling and uplink power control system.

Systems Specifications

Input Frequency 65.00 to 75.00 MHz
 Pre-detection Bandwidth 50 kHz Std
 Input Level..... -85 dBm, min.; -25 dBm, max.
 For full tracking range capability
 Frequency Tuning 10 kHz Steps
 Frequency Adjust Front Panel or Remotely
 AFC ± 23 kHz
 Threshold < 45 dB-Hz (C/N₀) for acquisition
 Input Impedance 50 Ohm
 Input Connector..... Type-BNC, 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 60 dB, 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..... None
 Continuous Digital Streaming RS-232 or RS-422
 DB9 interface connector . (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 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
 Auto-Sensing

Environmental Specifications:

Operating Temperature..... 0^oc to +50^o c
 Storage Temperature -40^o c to +70^o c
 Humidity 95% RH@ 40^o c

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* 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. A female DB9, interface connector on the rear of the unit is specifically dedicated for this option.