Model ASC300Ku-I (Internal BDC) Beacon Receiver

Quality Products @ Reasonable Prices

Functional Description

The Model **ASC300Ku-I Beacon Receiver** is a high performance self contained 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 **ASC300Ku-I will tune over any of the three primary Ku band satellites (10.7-11.70 GHz, 11.70-12.75 GHz) by utilizing an internal block down converter. The frequency band must be customer specified. The applications for the ASC300 Ku-I** are for antenna tracking controllers and uplink power control system.

Systems Specifications

Input Frequency ....Customer Specified Internal Block Converter (See below bands)
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
AFC ....$\pm$30 kHz
Threshold.............. <45 dB-Hz (C/N$_0$) for acquisition Input
Impedance... 50 Ohm
Input Connector........... Type-N, Female **(SMA Optional)**
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........................ <1 ppm, 0^{0}c to +50^0 c

Frequency Reference............................10 MHz (Internal)
Phase Noise................... >75 dBc-Hz, 1 kHz from Carrier
Alarms..Unit Lock
Alarm Relay.. Form-C
External LNB Power..None
CDS **(Optional)**.. DB-9, RS-232
Front Panel Display.........................Vacuum Fluorescent
M&C ..... RS-232 or RS-422/485Switchable on rear panel
M&C Connector.. DB-9, Female
Ethernet 10/100 Base T **(Optional)** ...... RJ-45 Connector

Physical Characteristics
Size ....1.75"H X 16.00"D X 19.00"W
Weight...9 lb. (4.09 kg)
Primary Power.................. 90 - 264 VAC 47 - 63Hz, 1.4 A
.... Auto-Sensing

Environmental Specifications:
Operating Temperature................................0^{0}c to +50^0 c
Storage Temperature............................... -40^{0}c to +70^0 c
Humidity ....95% RH@ 40^0 c

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