

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 ± 30 kHz
 Threshold..... <45 dB-Hz (C/N₀) 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^oc to +50^o 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-422/485 Switchable 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^oc to +50^o c
 Storage Temperature -40^oc to +70^o c
 Humidity 95% RH @ 40^o c

Band 1 (10.7 to 11.70 GHz)
Band 2 (11.70 to 12.75 GHz)

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* 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.