Functional Description

The Model ASC300C Beacon 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 ASC300C are for antenna tracking controllers and uplink power control system. Note: The model ASC300C can be offered with external BDC instead of an internal BDC.

Systems Specifications

- **Input Frequency**: 3400.000 to 4200.000 MHz
- **Pre-detection Bandwidth**: 60 kHz
- **Input Level**: -90 dBm, min.; -30 dBm max.
- **Frequency Tuning**: 10 kHz Steps
- **Frequency Adjust**: Front Panel or Remotely
- **AFC Threshold**: <45 dB-Hz (C/N0) for acquisition
- **Input Impedance**: 50 Ohm
- **Output Impedance**: 100 Ohm, single ended
- **Tracking Gradient**: 0.5 V/dB, Std
- **Tracking Response**: 0 to +10 VDC
- **System Level Adjust**: 0 to 60 dB, 0.5 dB Steps
- **Frequency Stability**: <1 ppm, 0°c to +50°c
- **Frequency Reference**: 10 MHz (Internal)
- **Phase Noise**: >75 dB-Hz, 1 kHz from Carrier
- **Alarms**: Unit Lock
- **Alarm Relay**: Form-C
- **External Power**: None (Internal BDC)
- **CDS (Optional)**: DB-9, RS-232
- **DB9 interface connector**: See Below *
- **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. (4.08 kg)
  - **Primary Power**: 90 - 264 VAC 47 - 63Hz
- **Environmental Specifications**:
  - **Operating Temperature**: 0°c to +50°c
  - **Storage Temperature**: -40°c to +70°c
  - **Humidity**: 95% RH@ 40°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.