Functional Description

The Model ASC300-LW 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 ASC300-LW are for antenna step track controlling and uplink power control system. Also can be used on telemetry beacons.

Systems Specifications

- **Input Frequency**: 930 MHz to 2300 MHz
- **Warm up from cold start**: Within 1 dB in < 2 minutes
- **Temperature Stability**: ± 1.5 dB, 0 to 50 deg C
- **Pre-detection Bandwidth**: 60 kHz
- **Input Level**: -90 dBm, min.; -30 dBm max.
- **Frequency Tuning**: 10 kHz Steps
- **Frequency Adjust**: Front Panel or Remotely
- **C/N0**: <45 dB-Hz for capture
- **AFC**: +30 kHz
- **Image Rejection**: >40 dB, 930 to 2300 MHz
- **Input Impedance**: 50 Ohm
- **Input Connector**: Type-N, Female
- **Output Impedance**: 100 Ohm, single ended
- **Output Connector**: Terminal plug and BNC Female
- **Tracking Gradient**: 0.5 V/db
- **Tracking Response**: 0 to +10 VDC
- **System Level Range**: 60 dB
- **System Level Adjust**: 0 to 60dB, 0.5dB Steps
- **Frequency Stability**: <1 ppm, 0°C to +50°C
- **Phase Noise**: >75 dB-Hz, 1 kHz from Carrier
- **Alarms**: Unit Lock
- **Alarm Relay**: Form-C
- **External LNB Power**: +18 VDC, Switched, In/Out, 500 ma, max
- **CDS (Optional)**: DB-9, RS-232
- **Front Panel Display**: Vacuum Fluorescent
- **M&C Connector**: DB-9, Female
- **Ethernet 10/100 Base T (Optional)**: RJ-45 Jack connector
- **Primary Power**: 90 - 264 VAC 47 - 63Hz, 1.4 A AutoSensing

Environmental Specifications:

- **Operating Temperature**: 0°C to +50°C
- **Storage Temperature**: -40°C to +70°C
- **Humidity**: 95% RH @ 40°C

Options

- **Note 1**: 75 Ohm F female or 50 Ohm SMA female are available.
- **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. Other baud rates are available. A female DB9, RS-232 interface connector on the rear of the unit is specifically dedicated for this option.