



Solid State Power Block

33 dBm Ku-band Outdoor Power Amplifier

MDS-SSPB-107-33o

The MDSA hub-mount solid state power block (SSPB) is designed for outdoor use and for operating in Ku-band frequency range for MVDDS systems. It has extremely high linearity across its 1,000 MHz bandwidth which makes this unit unique in its class. The MDSA SSPB consists of a Ku-band power amplifier, up-converter, monitoring and control system (M&C), power supply and cooling system. The SSPB system has powerful monitor and control functionality. There is a microprocessor on the board, which processes signals from the amplifier modules and then sends them to the MDSA M&C control unit for outdoor SSPBs and vice versa. The SSPB is designed with built-in redundancy feature. Two power amplifiers can be combined into one redundant set for operation in 1:1 redundant configuration as shown in the picture.



Features

- Superb linearity across entire 1,000 MHz bandwidth
- Optional redundancy, permitting a 1:1 backup configuration
- Additional RF output status LED on the rear panel
- Built-in monitoring of operational conditions
- Easy integration into our remote monitoring and control system for real-time tracking of operational status
- Hub-mount case for the outdoor use

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Technical Specifications

MDS-SSPB-107-330

RF Specification

- Input frequency range: 950 to 1,950 MHz
- Output frequency range:
 - 10,700 to 11,700 MHz
- Local oscillator frequency: 9,750 MHz
- Input connector: N-type, 50 Ohm
- Output connector: WR75 or N-Type (F)
- Input signal range: -34 to -14 dBm
- Output signal level: +33 dBm @1 dB compression (P1dB)
- Gain flatness:
 - 4 dB p-p, max within 1,000 MHz
 - 2 dB p-p, max within 500 MHz
 - 1 dB p-p, max within 40 MHz
- Input return loss, min: 18 dB
- Output return loss, min: 20 dB
- Noise figure, max: 10 dB@max gain
- Third order intermodulation, max: 35 dBc
- In-band spurious level, max: - 50 dBc@max power
- Out-band spurious level: - 50 dBc@max power
- Phase noise @ offset:
 - 100 Hz: - 60 dBc
 - 1 kHz: - 65 dBc
 - 10 kHz: - 75 dBc
 - 100 kHz: - 85 dBc

Management

- 10/100Base-T (RJ-45) for management over IP/Ethernet
- SNMP v.2 agent for monitoring and configuration switching
- RS-232 and RS-422 serial

Electrical Specifications

- Power supply: 90 to 260 VAC, 50/60 Hz
- Power consumption: 70 Watts
- Operating temperature: -30 to +55 degrees Celsius

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