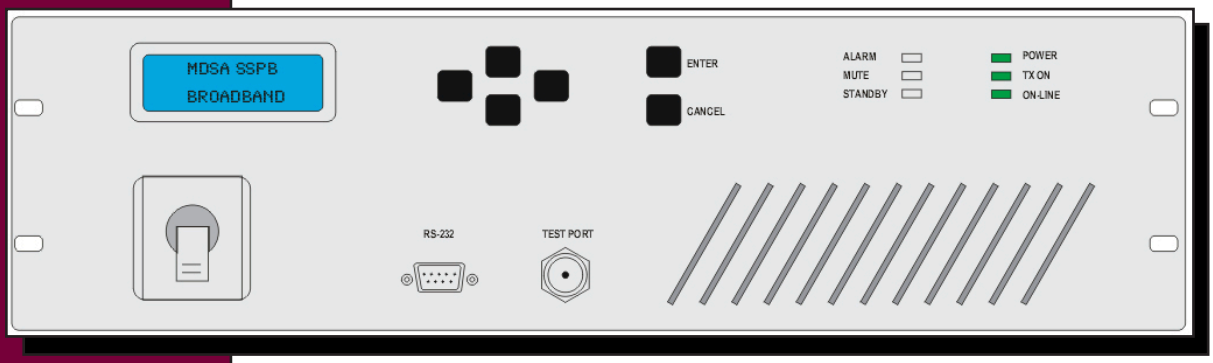
Power Amplifier
Solid State Power Block

Digital Head End Series

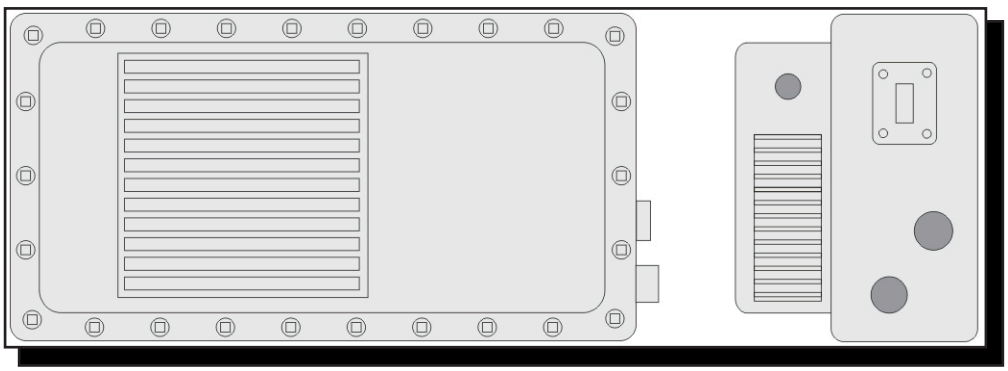
The MDSA rack-mount solid state power block (SSPB) is designed for operating in Ku-band frequency range for MVDDS systems and has high linearity in 1,000 MHz bandwidth which makes this unit unique in its class. The MDSA SSPB contains of Ku-band power amplifier, up-converter, monitoring and control system (M&C), power supply and cooling system. The SSPB system has a powerful monitor and control function. There is a microprocessor on the board, which processes signals from the amplifier modules and then sends them to the control unit and vice versa.

The SSPB is designed with built-in redundancy feature. Two power amplifiers can be combined into the redundant set for operation in 1:1 redundant configuration. The power amplifiers are available in output power from 10 to 80 Watts (40 dBm to 49 dBm) and frequency ranges from 10.7 to 12.7 GHz



Features

- Superb linearity across entire 1,000 MHz bandwidth
- Optional redundancy, permitting a 1:1 backup configuration
- Output power from 10 to 80 Watts (40 dBm to 49 dBm)
- Built-in monitoring of operational conditions
- Easy integration into our remote monitoring and control system for real-time tracking of operational status
- Available in indoor and outdoor versions based upon customer needs



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Technical Specifications
Power Amplifier

RF Specification

- Input frequency range: 950 to 1,950 MHz
- Output frequency range:
  - 10,700 to 11,700 MHz
  - 11,700 to 12,700 MHz
- Input connector: N-type, 50 Ohms
- Output connector: WR75
- Input signal range: -40 to -20 dBm
- Output signal level: +30 to +49 dBm
- Gain flatness:
  - 3 dB p-p, max within 1,000 MHz
  - 2 dB p-p, max within 500 MHz
  - 0.5 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 dBct

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

Indoor Specifications

- Power supply: 100 to 260 VAC, 50/60 Hz
- Power consumption: 300 Watts
- Operating temperature: 0 to +50 degrees Celsius

Outdoor Specifications

- Power supply: 40 to 60 VDC
- Power consumption: 370 Watts average
- Operating ambient temperature: -30 to +55 degrees Celsius

Models

- SSPB-107-40in

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