

# Power Amplifier - 50 watts

Model QBS-563 (1710 - 1880 MHz)



## Features

- High Output: 50 watts
- Class AB Design
- Ultra High Efficiency...up to 50%
- Gain: 34 dB
- Supply: +28 volts
- Impedance: 50 ohms



## Description

The QBS-563 is class AB amplifier with a narrow band frequency range of 1710 to 1880 MHz. Operating over a DC input voltage of +28 Vdc, the QBS-563 provides 34 dB small signal gain. Output power of +44 dBm is provided over the 1710 to 1880 MHz frequency band. Typical current drawn from a +28 V supply at +44 dBm output power is 3000 mA.

## Added Features

- Internal Voltage Regulator: Supplies from +28 to +32 volts
- Thermal Temperature Compensating Circuits
- High Input Protection Circuitry
- Built-in Fault Monitoring
- Built-in User Control Interfaces
- Harmonic Filters

## Typical Specifications

|                        |                     |
|------------------------|---------------------|
| Frequency              | 1710 to 1880 MHz    |
| Output Power           | +44 dBm             |
| Saturated Output Power | +51 dBm (over band) |
| Small Signal Gain      | 34 dB               |
| Gain Flatness          | +/- 1 dB            |
| IP3                    | +56 dBm             |
| Reverse Isolation      | 50 dB               |
| Impedance              | 50 ohms             |
| DC Power               | +28 V / 3000 mA     |
| Temp Range             | -40°C to +85°C      |

*All specifications above typical, measured at 25 °C*

## Dimensions and Connections

8.0" L x 3.5" W x 1.29" H

Hermetically sealed housing, available with field replaceable SMA connectors, or gold plated pins for through board mount.

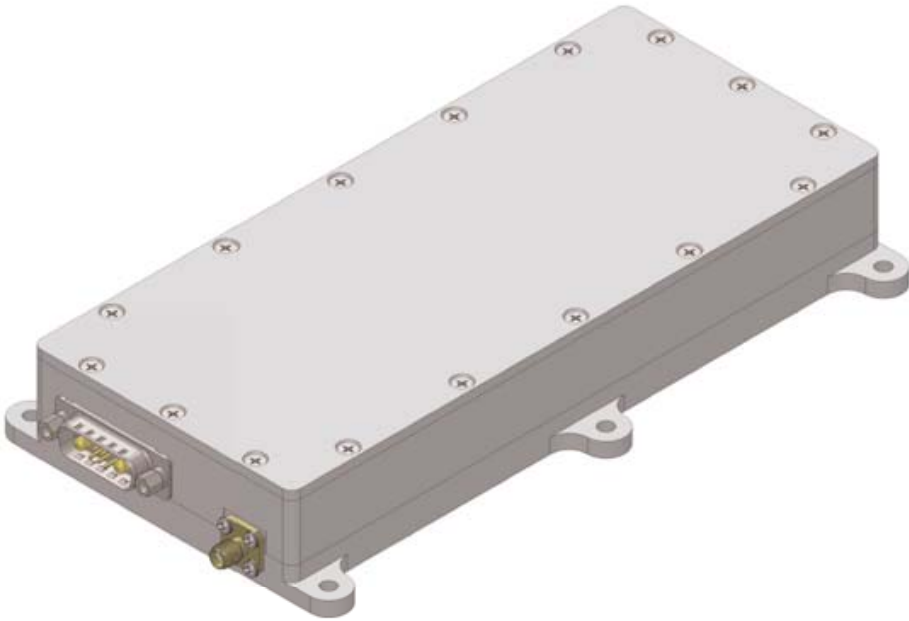
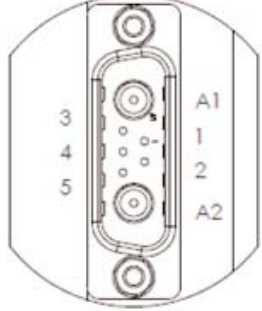
## Maximum Ratings

|                       |                 |
|-----------------------|-----------------|
| Operating Temperature | -55°C to +100°C |
| Storage Temperature   | -62°C to +125°C |
| DC Voltage at 25°C    | +34 volts       |
| Input Drive at 25°C   | +28 dBm         |

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## Control Logic

7W2 CONNECTOR  
DETAIL A

| 7W2 CONNECTOR PINOUT |                |
|----------------------|----------------|
| Pin Number           | SIGNAL         |
| A1                   | +28 VDC        |
| A2                   | +28 VDC RETURN |
| 1                    | BLANK +        |
| 2                    | B (+)          |
| 3                    | BLANK -        |
| 4                    | RTN/SHIELD     |
| 5                    | A (-)          |

## Outline Drawing

