

# RF AMPLIFIER

## MODEL QBS-256

Available as: QBS-256, Housing (E52-19500)

### Features

- High Gain: 24.0 dB Typical
- High Power: +33 dBm Typical
- Operating Temp. - 20 °C to +70 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -20 °C to +70 °C
Frequency	1800 - 2000 MHz	1800 - 2000 MHz
Gain (dB)	24.0 ± 1.0	—
Gain vs. Temperature	—	+2.0/ -2.0 Max.
Gain Flatness	1.5	—
Reverse Isolation (dB)	-35	—
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+33	+32 Min.
Output Intercept point 3rd Order	+47	+45 Min.
2nd Order	—	—
Power Vdc	15	—
mA	950	—

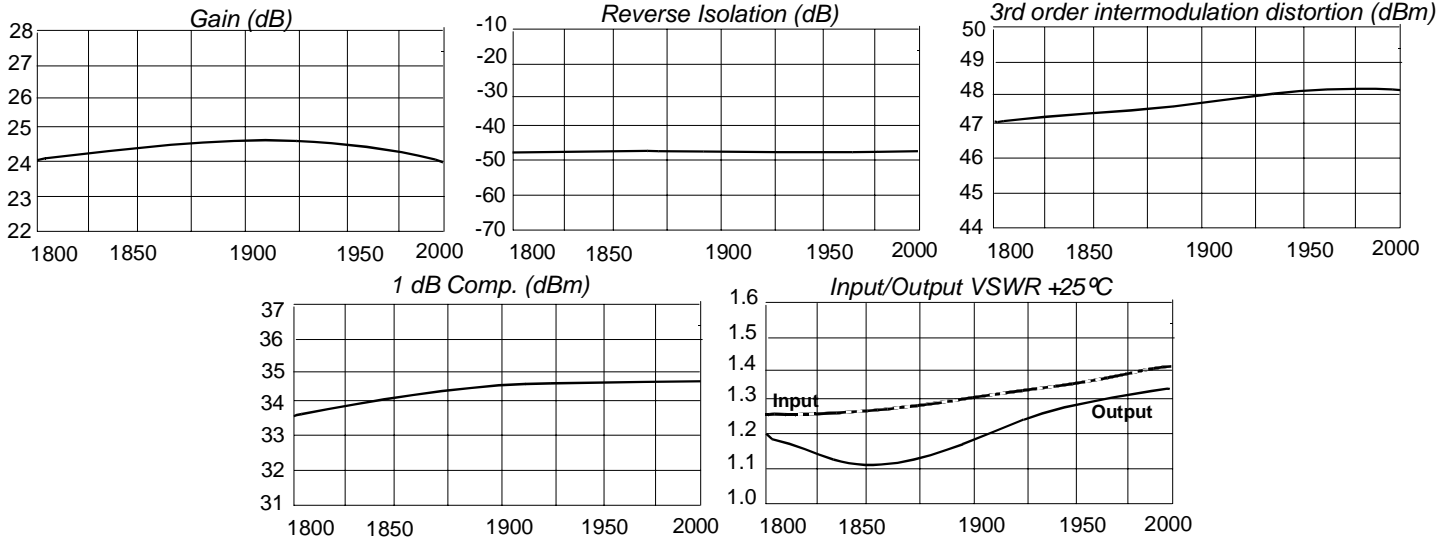
### Maximum Ratings

Ambient Operating Temperature ..... -20 °C to +70 °C  
 Storage Temperature ..... -55 °C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

#### Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

### Typical Performance Data



Legend ——— + 25 °C - - - - + 70 °C - - - - -20 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
1800	-20.8 87.5	24.0 -68.2	-46.9 114.9	-23.1 25.4
1825	-20.4 73.4	24.1 -91.0	-46.6 94.5	-26.4 -77.5
1850	-19.8 57.0	24.3 -113.9	-47.0 72.7	-26.4 -120.6
1875	-19.0 38.3	24.4 -137.1	-46.3 61.4	-24.5 -138.3
1900	-18.1 18.6	24.5 -160.8	-45.4 42.1	-24.0 -153.9
1925	-17.2 -2.2	24.5 175.3	-45.6 13.4	-20.9 -167.2
1950	-16.4 -22.5	24.4 151.1	-45.5 -2.9	-18.9 179.3
1975	-15.7 -42.0	24.3 126.8	-45.9 -16.8	-18.0 171.1
2000	-15.0 -59.7	24.0 102.7	-46.4 -43.9	-17.3 162.0



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