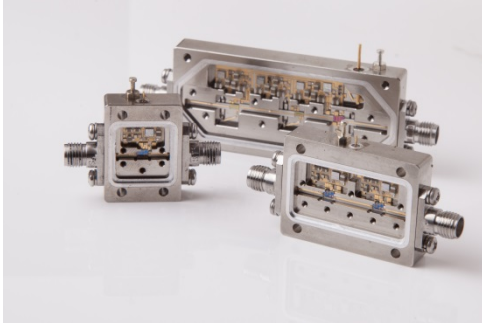


# Medium Power RF Amplifier

**Frequency Range: 1400 MHz to 2700 MHz**



## Features

- Wide Bandwidth: 1400 MHz -2700 MHz
- High Output Power: +33.5 dBm
- High Linearity: +60 dBm (IP2)
- No External Circuitry or Blocking Caps Required

Model BXMP1248 is a high performance medium power amplifier covering a wide 1400-2700 MHz bandwidth. This design also offers excellent linearity and a laser welded housing for the ultimate in environmental protection. This standard model may also be modified or customized in order to optimize any one particular parameter). All specification ratings are based on measurements in a 50  $\Omega$  (ohm) system with a DC supply voltage tolerance of +/- 2%.

## Technical Specifications

| Parameter                              | Unit  | Typical   | Min/Max   |
|--|-------|-----------|-----------|
| Frequency Range                        | MHz   | 1400-2700 | 1400-2700 |
| Gain                                   | dB    | 31.5      | 30        |
| Noise Figure                           | dB    | 4.0       | 5.0       |
| Output Power @ 1 dB Compression        | dBm   | +33.5     | +33       |
| Output 3 <sup>rd</sup> Order Intercept | dBm   | 45        | ---       |
| Output 2 <sup>nd</sup> Order Intercept | dBm   | 60        | ---       |
| Reverse Isolation                      | dB    | 60        | ---       |
| Input VSWR                             | ---   | 1.5:1     | 2.0:1     |
| Output VSWR                            | ---   | 1.5:1     | 2.0:1     |
| Supply Voltage                         | volts | +15       | +15       |
| Supply Current                         | mA    | 900       | 950       |

## Maximum Ratings

| Maximum (No Damage) Ratings |                 |
|-----------------------------|-----------------|
| Storage Temperature         | -62°C to +125°C |
| Operating Temperature       | -40°C to +85°C  |
| DC Voltage @ 25°C           | +18 volts       |
| Input Drive @ 25°C (CW)     | +18 dBm         |

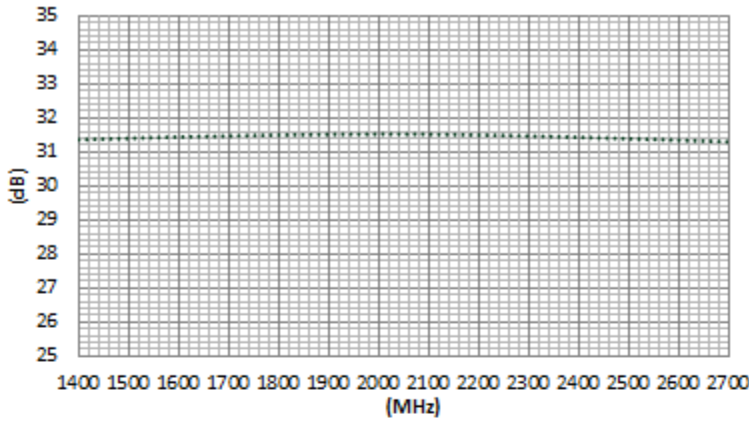
\* Typical values are measured at 25°C, but not guaranteed.

## Mechanical & Electrical

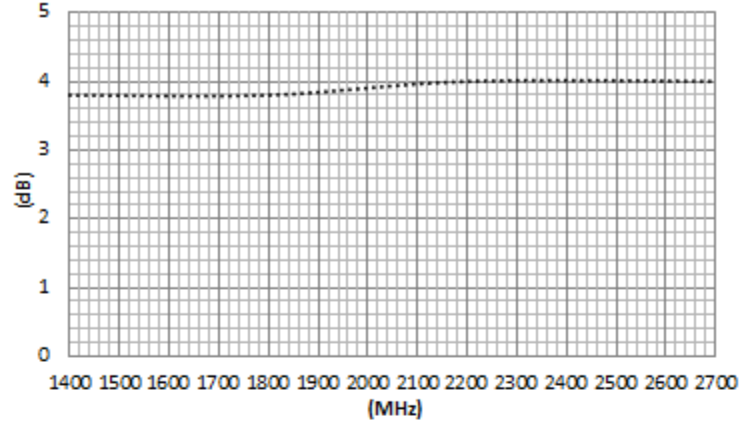
| Parameter                            | Specification               |
|--------------------------------------|-----------------------------|
| Specification Temperatures (Min/Max) | 0°C to +50°C                |
| Housing Size                         | 1.75" L x 1.10" W x 0.52" H |
| Housing Drawing                      | SMA Connectorized           |

**Typical Performance Graphs**

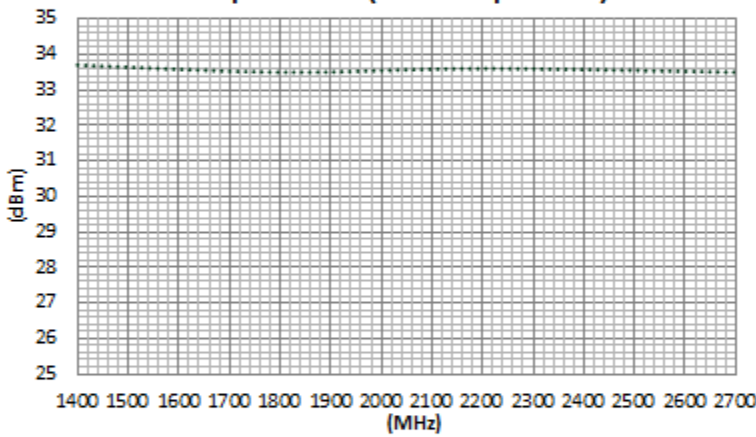
**Gain**



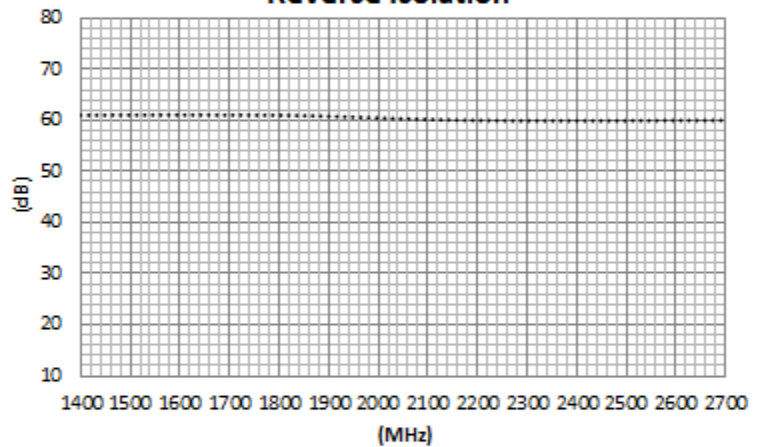
**Noise Figure**



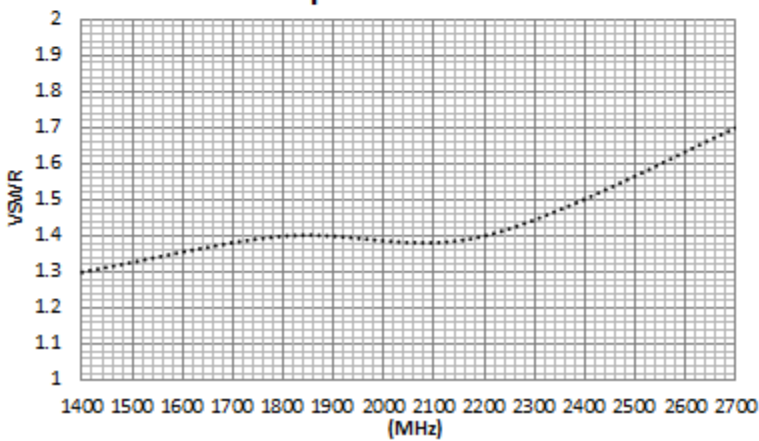
**Output Power (1 dB Compression)**



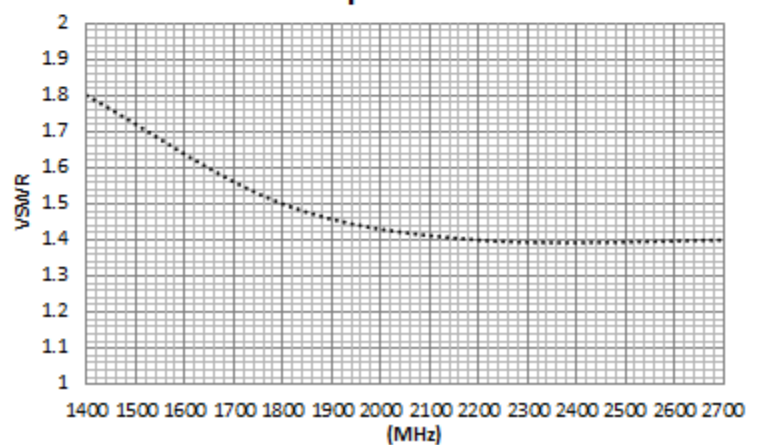
**Reverse Isolation**



**Input VSWR**



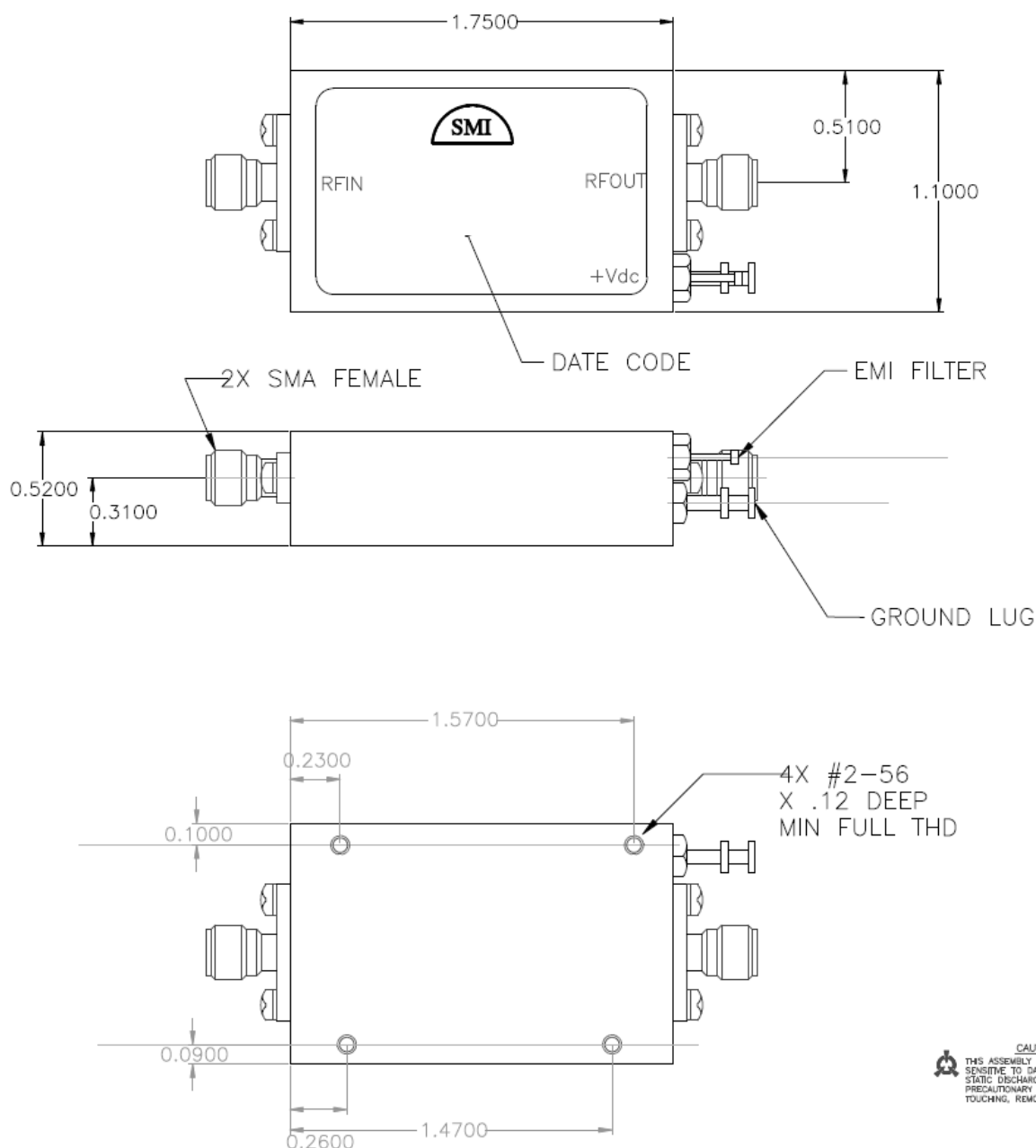
**Output VSWR**



|   |  |
|---|--|
| Grounding Instructions  | Care should be taken to effectively ground each unit.  |
| Revisions   | API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice. |
| Min./Max. Values  | Specifications are guaranteed when tested in a 50 Ω (ohm) system.  |
| Typical performance graphs and values are measured at 25°C, but not guaranteed. |  |

## Outline Drawing

(For reference only)



**CAUTION**  
THIS ASSEMBLY CONTAINS PARTS SENSITIVE TO DAMAGE BY ELECTRO-STATIC DISCHARGE (ESD). USE ESD PRECAUTIONARY PROCEDURES WHEN TOUCHING, REMOVING OR INSERTING.