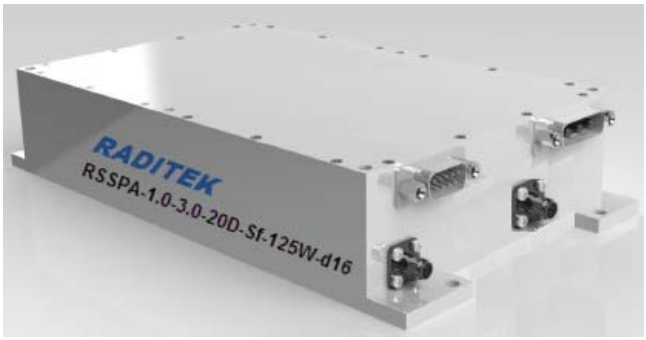
RADITEK

**SSPA**
**125 Watts**

# Solid State Power Amplifier 1.0-3.0 GHz
## 125 Watts CW

RoHS COMPLIANT

• Amplifier should be mounted on a heat sink with forced air cooling.




01 Model Features
• RF sample monitoring via SMA female connector
• DC monitoring of RF output level

**Order Examples: RAMP-M-1.0-3.0-20d50v-125Wcw-0pt-d16**
**Description:** *(SSPA, Module, 1.0-3.0GHz, 20dB Gain,50V, SMA female Connectors,125W Continuous)*
*Option* **- 01 With I and 02 without interface, Protection and Alarms (see below)**

| Parameter | Specifications | Units |
|---|---|---|
| Operating Frequency Range | **1.0-3.0** | GHz |
| Class | AB | |
| Gain | **20** | dB |
| Max Output Power (P1) | **125W CW** | Watts |
| Output power flatness | **± 1dB** | dB |
| Input and Output VSWR | 1.5:1 max (**Note:** Unit shall accept a load VSWR up to 2.5:1 without damage) | :1 |
| Duty Cycle | 100 max | % |
| Remote control | None | |
| ON OFF isolation | Better than -60 | dBc |
| Harmonics | -20 at P1 | dBc |
| Out of band Spurious levels | -70 | dBc |
| Phase noise | -60 dBc/Hz at 100 Hz from carrier (Input source phase noise <-80 dBc/Hz typ<br>Amplifier should not add noise components more than 10dB) | dBc/Hz |
| Noise figure | <10 | dB |
| System power supply | +50V | VDC |
| Input and Output Impedance | 50 Ω ±1 | Ohms |
| Operating temperature | -40 to +70* | ºC |

## Interface, Protection and Alarm Options

| OPTION # | -01 (Includes all listed options below) | | -02 |
|---|---|---|---|
| Transient Protection | /RFI Filter, Suitable surge protection to be provided by user | | None |
| Control interface | D38999 SERIES III Circular connector | | None |
| RF Output sample | SMA Female | | None |
| M&C Interface RS422-DB25 | a Forward & Reflected power | f. Voltage & Current of critical modules used in SSPA | None |
| | b Output VSWR | G. Forward power monitoring | None |
| | c. Duty Cycle | H. Reflected power monitoring | None |
| | e Temperature | I. Temperature health | None |
| Protection Against Damage | I. Over Temperature, automatic shutdown (resets when temperature returns to normal) | | None |
| | II. Over-current (automatic shutdown, requires resetting the unit to clear it) | | None |
| | III. Excess VSWR | | None |
| | IV. RF input over drive > +10dBm | | None |
| Alarms | Over temp. with auto clear; Over-current, with man. clear, VSWR, I/P Over drive | | None |

**Customer to install adequate heat sink and forced air cooling to ensure temperature does not exceed 70°C**



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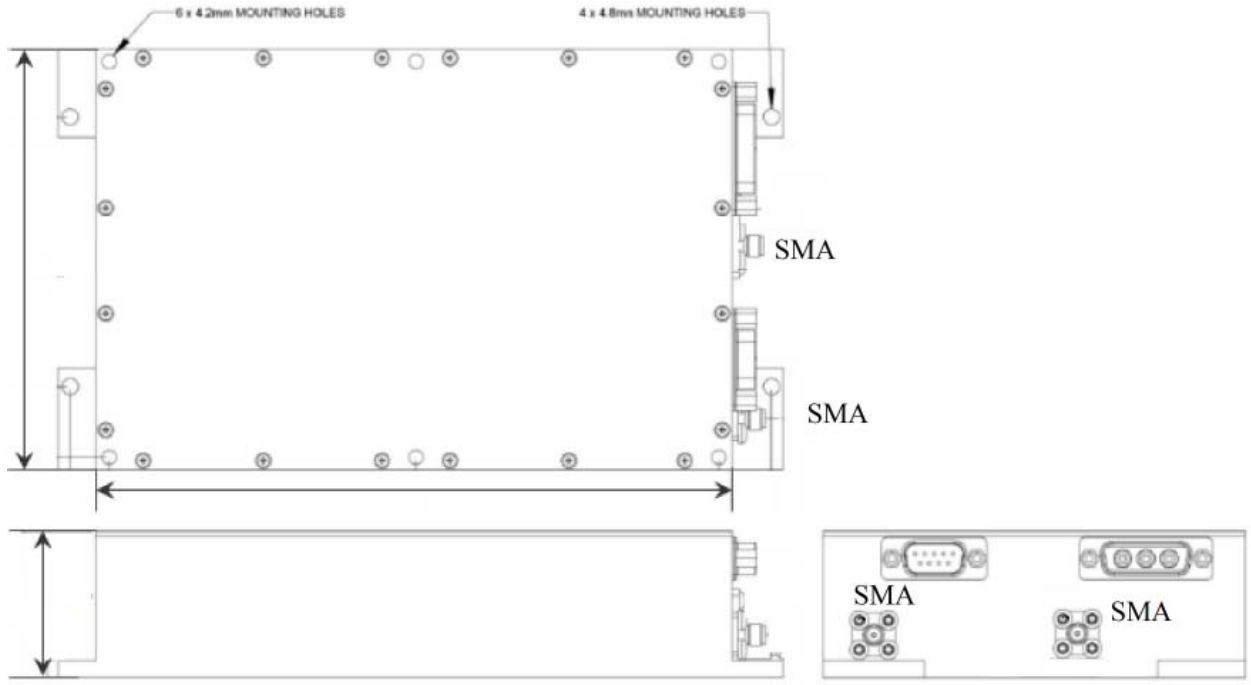
# Solid State Power Amplifier Module 1.0-3.0GHz

## SMA female to SMA Female Connector, 125 Watts Power

| Mechanical Specifications | | Units |
|---|---|---|
| Type of Package | Module 15” x 10” x 3.5” | Inches |
| Mounting arrangement | Horizontal | |
| Cooling | **Forced Air to be provided by customer** | |
| Weight | <17 Lbs max | Lbs |
| **Interfacing connectors** | | |
| RF Input and RF output | SMA Female Panel mount | |
| DC Line | D38999 SERIES III Circular connector | |
| Finish & Paint | Anodyne | |
| General notes | Power have mating caps with metallic bead chain. | |
| Environmental & EMI/EMC | Mil std 461F (Designed to meet but not tested) | |

Enclosure subject to change to improve performance
Both Input and Output connectors are SMA Female

**Outline drawing & dimension**



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