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These areas

## **MODEL 5067**

20 - 1000 MHz 300 WATTS LINEAR POWER RF AMPLIFIER

## Solid State Broadband High Power RF Amplifier

The 5067 is a 300 Watt broadband amplifier that covers the 20 – 1000 MHz frequency range. This amplifier utilizes Class A/AB linear power devices that provide an excellent  $3^{rd}$  order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5067 comes with an extended multiyear warranty.

## **CIRCUIT PROTECTIONS**

- Overload
- Over Current
- ◊ Over Voltage

## **ORDERING MODELS**

 ◊ F - Front Panel Connectors
◊ FE - Front Panel Connectors and Control Option

| ParameterSpecification @ 25° CElectricalImage: Constraint of the system of t                            |                   |                          |                               |
|---|-------------------|--------------------------|-------------------------------|
| 1Frequency Range20 - 1000 MHz2Saturated Output Power300 Watts typical3Power Output @ 1dB Comp.180 Watts min4Small Signal Gain+56 dB min5Gain Flatness± 2.0 dB max6IP3+58 dBm typical7Input VSWR2:1 max8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input200 - 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  |                   | Parameter Parameter      | Specification @ 25° C         |
| 2Saturated Output Power300 Watts typical3Power Output @ 1dB Comp.180 Watts min4Small Signal Gain+56 dB min5Gain Flatness± 2.0 dB max6IP3+58 dBm typical7Input VSWR2:1 max8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanical1360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | <b>Electrical</b> |                          |                               |
| 3Power Output @ 1dB Comp.180 Watts min4Small Signal Gain+56 dB min5Gain Flatness± 2.0 dB max6IP3+58 dBm typical7Input VSWR2:1 max8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanicalConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 1                 | Frequency Range          | 20 – 1000 MHz                 |
| 4Small Signal Gain+56 dB min5Gain Flatness± 2.0 dB max6IP3+58 dBm typical7Input VSWR2:1 max8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanicalInputrous Signals31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 2                 | Saturated Output Power   | 300 Watts typical             |
| 5Gain Flatness $\pm 2.0 dB max$ 6IP3 $\pm 58 dBm typical$ 7Input VSWR $2:1 max$ 8Harmonics $-20 dBc typical @ 180 Watts$ 9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input $200 - 240$ VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions $31" x 24" x 26"$ 17Weight $360$ lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature $0^{\circ}$ C to $+50^{\circ}$ C22Operating Humidity95% Non-condensing   | 3                 | Power Output @ 1dB Comp. | 180 Watts min                 |
| 6IP36IP3+58 dBm typical7Input VSWR $2:1 \max$ 8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input $200 - 240$ VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions $31" x 24" x 26"$ 17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 4                 | Small Signal Gain        | +56 dB min                    |
| 7Input VSWR2:1 max8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 5                 | Gain Flatness            | <u>+</u> 2.0 dB max           |
| 8Harmonics-20 dBc typical @ 180 Watts9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 6                 | IP <sub>3</sub>          | +58 dBm typical               |
| 9Spurious Signals> -60 dBc typical @ 180 Watts10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationAB16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 7                 | Input VSWR               | 2:1 max                       |
| 10Input/Output Impedance50 Ohms nominal11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanicalImpute the signal31" x 24" x 26"16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 8                 | Harmonics                | -20 dBc typical @ 180 Watts   |
| 11AC Input Power4000 Watts max12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanical16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 9                 | Spurious Signals         | > -60 dBc typical @ 180 Watts |
| 12AC Input200 – 240 VAC, single phase13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanical16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 10                | Input/Output Impedance   | 50 Ohms nominal               |
| 13RF Input0 dBm max14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanical16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 11                | AC Input Power           | 4000 Watts max                |
| 14RF Input Signal FormatCW/AM/FM/PM/Pulse15Class of OperationABMechanical16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 12                | AC Input                 | 200 – 240 VAC, single phase   |
| 15Class of OperationABMechanical16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 13                | RF Input                 | 0 dBm max                     |
| MechanicalImage: Second se | 14                | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |
| 16Dimensions31" x 24" x 26"17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced AirEnvironmental0perating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | 15                | Class of Operation       | AB                            |
| 17Weight360 lb. max18ConnectorsType-N19GroundingChassis20CoolingInternal Forced Air21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing  | <u>Mechanical</u> |                          |                               |
| 18ConnectorsType-N19GroundingChassis20CoolingInternal Forced AirEnvironmental   | 16                | Dimensions               | 31" x 24" x 26"               |
| 19GroundingChassis20CoolingInternal Forced AirEnvironmental   | 17                | Weight                   | 360 lb. max                   |
| 20CoolingInternal Forced AirEnvironmental   | 18                | Connectors               | Type-N                        |
| EnvironmentalOperating Temperature0° C to +50° C21Operating Humidity95% Non-condensing  | 19                | Grounding                | Chassis                       |
| 21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing   | 20                | Cooling                  | Internal Forced Air           |
| 22 Operating Humidity 95% Non-condensing  | Environmental     |                          |                               |
|   | 21                | Operating Temperature    | 0° C to +50° C                |
| 22 Operating Altitude Up to 10,000' Above See Level   | 22                | Operating Humidity       | 95% Non-condensing            |
| 23 Operating Allitude Op to 10,000 Above Sea Level  | 23                | Operating Altitude       | Up to 10,000' Above Sea Level |
| 24 Shock and Vibration Normal Truck Transport   | 24                | Shock and Vibration      | Normal Truck Transport        |

Specifications subject to change without notice.