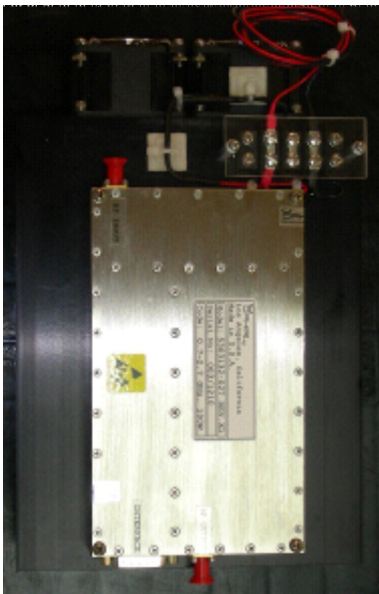


## Solid State Broadband High Power RF Amplifier

The 5303132-027 is a 100 Watt broadband amplifier that covers the 700-2700 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3<sup>rd</sup> 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 5303132-027 comes with an extended multiyear warranty.



**Shown with Optional Heatsink and Fans**

|                             | Parameter                 | Specification @ 25° C                                     |
|-----------------------------|---------------------------|---|
| <b><u>Electrical</u></b>    |                           |   |
| 1                           | Frequency Range           | 700 - 2700 MHz  |
| 2                           | Output Power @ Psat       | 100 Watts typical<br>90 Watts minimum                     |
| 3                           | Small Signal Gain         | +45 dB minimum  |
| 4                           | Gain Flatness @ Psat      | +/-2.0 dB maximum<br>+/-1.5 dB typical                    |
| 5                           | Input VSWR                | 2:1 max   |
| 6                           | Harmonics                 | -20 dBc typical<br>-15 dBc maximum                        |
| 7                           | Spurious Signals          | -60 dBc maximum<br>-70 dB typical                         |
| 8                           | Input/Output Impedance    | 50 Ohms nominal   |
| 10                          | Efficiency (PAE)          | 25% minimum<br>30% typical                                |
| 11                          | Switching Time (Blanking) | 5µs maximum   |
| 12                          | DC Input                  | 30Vdc nominal   |
| 13                          | RF Input                  | +10 dBm max<br>+7 dBm nominal full rated power            |
| 14                          | DC Power Consumption      | 500 W max   |
| 15                          | RF Input Signal Format    | CW/AM/FM/PM/Pulse   |
| 16                          | Class of Operation        | A/AB  |
| <b><u>Mechanical</u></b>    |                           |   |
| 17                          | Dimensions                | Length 180mm<br>Width 105mm<br>Height <30mm               |
| 18                          | Weight                    | < 1.0Kg   |
| 19                          | Connectors                | SMA female  |
| 20                          | Grounding                 | Chassis   |
| 21                          | Cooling                   | Adequate Heatsink Required                                |
| <b><u>Environmental</u></b> |                           |   |
| 22                          | Baseplate Temperature     | -20° C to +85° C<br>Shutdown over 85°C<br>Recovery @ 60°C |
| 23                          | Operating Humidity        | 95% Non-condensing  |
| 24                          | Operating Altitude        | Up to 10,000' Above Sea Level                             |
| 25                          | Shock and Vibration       | MIL-STD-810F (Method 516.5)                               |

Specifications subject to change without notice

### DC and Interface Connector Pin Description

- |                         |  |
|-------------------------|--|
| ◇ Pin 1 VDD +30VDC      | ◇ Pin 8 N/C  |
| ◇ Pin 2 VDD +30VDC      | ◇ Pin 9 VDD +30VDC   |
| ◇ Pin 3 Ground          | ◇ Pin 10 Ground  |
| ◇ Pin 4 N/C             | ◇ Pin 11 Ground  |
| ◇ Pin 5 Current Monitor | ◇ Pin 12 Blanking (On/Off)<br>On = 3-5 Vdc; Off = <0.5 Vdc |
| ◇ Pin 6 N/C             | ◇ Pin 13 Ground  |
| ◇ Pin 7 N/C             |  |

**Blanking sequence: Apply main Vdc first, before enabling blanking feature.**