

# AMP3026

## SOLID STATE HIGH POWER AMPLIFIER

### PRELIMINARY

#### FEATURES

Class AB GaN design  
Instantaneous wide Bandwidth  
Built-in protection circuits  
High reliability and ruggedness

#### ELECTRICAL SPECIFICATIONS

| Parameter                 | Specification      | Notes          |
|---------------------------|--------------------|----------------|
| Operating Frequency Range | 8.0 - 12.0 GHz     |                |
| Power Output Past         | 50 Watt Typ        | CW             |
| Power Output P1dB         | 30 Watt Typ        |                |
| Small Signal Gain         | 47 dB Min          |                |
| Power Gain Flatness       | 4.0 dB p-p Max     |                |
| Input Return Loss         | 10 dB Min          |                |
| Harmonics                 | >25 dBc            | At rated Pout  |
| Non Harmonics Spurious    | >60 dBc            |                |
| Noise Figure              | 8 dB Max           |                |
| Operating Voltage         | 42 VDC $\pm$ 0.5 V |                |
| Current Consumption       | 10 Amp Max         | At rated Pout  |
| Max Input Power           | +8 dBm Max         | Without damage |
| Load VSWR Protection      | 3 : 1              |                |

#### ENVIRONMENTAL CHARACTERISTICS

| Parameter                  | Specification | Notes            |
|----------------------------|---------------|------------------|
| Operating Case Temperature | -20 to +75 °C |                  |
| Storage Temperature        | -40 to +85 °C |                  |
| Relative Humidity          | 5 to 95 %     | Non Condensation |

#### MECHANICAL SPECIFICATIONS

| Parameter                      | Specification     | Notes                |
|--------------------------------|-------------------|----------------------|
| Dimensions                     | 140 X 130 x 27 mm | Excluding Connectors |
| Weight                         | TBD               |                      |
| RF Connectors In/Out           | HF SMA female     | Cover Flange         |
| DC Power / Interface Connector | 9-Pin D-Sub       |                      |
| Cooling                        | External Heatsink | Forced air required  |

#### D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function       | Description                        |
|-----|----------------|------------------------------------|
| 1   |                | N/A                                |
| 2   |                | N/A                                |
| 3   | Current Sensor | $I_D @ 20mV/100mA$ Typ             |
| 4   | Temp Sensor    | $V_T @ 10mV/^{\circ}C + 500mV$ Typ |
| 5   | Shutdown       | TTL                                |
| 6,7 | VDD            | 42VDC                              |
| 8,9 | GND            | Ground                             |

**PRELIMINARY**

**OUTLINE DRAWING**

