

## Features

- Ultra Wideband Solid State Power Amplifier
- Gain: 45dB Typical
- Psat: 40dBm Typical
- Supply Voltage: +28V



## Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT  
Test Instrument

| Parameter                                         | Min. | Typ. | Max. | Units |
|---------------------------------------------------|------|------|------|-------|
| Frequency Range                                   | 26   |      | 40   | GHz   |
| Gain                                              | 40   | 45   |      | dB    |
| Gain Flatness                                     |      | ±6.0 |      | dB    |
| Gain Variation Over Temperature<br>(-45°C~+85°C ) |      | ±6.0 |      | dB    |
| Input Return Loss                                 |      | 15   |      | dB    |
| Saturated Output Power (Psat)                     | 38   | 40   |      | dBm   |
| Isolation S12                                     |      | -60  |      | dB    |
| Supply Current (Vcc=+28V)                         |      | 4    | 6    | A     |
| Power-added Efficiency                            |      | 10   |      | %     |

|                           |                    |                 |                                |
|---------------------------|--------------------|-----------------|--------------------------------|
| Weight                    | 16.5 ounces (Max.) | Impedance       | 50ohms                         |
| Input / Output Connectors | 2.92mm-Female      | Material        | Aluminum                       |
| Finish                    | Nickel Plated      | Package Sealing | Epoxy Sealed (Standard)        |
|                           |                    |                 | Hermetically Sealed (Optional) |

### Absolute Maximum Ratings

|                   |       |
|-------------------|-------|
| Operating Voltage | +30V  |
| RF Input Power    | +5dBm |

**Note:** Maximum RF input power is set to assure safety of amplifier. Input power may be increased at own risk to achieve full power of amplifier. Please reference gain and power curves.

### Biassing Up Procedure

|        |                                                                                  |
|--------|----------------------------------------------------------------------------------|
| Step 1 | Connect Ground Pin                                                               |
| Step 2 | Connect input and output with 50 Ohm source/load. (in band VSWR10dB return loss) |
| Step 3 | Connect +28V                                                                     |

### Power OFF Procedure

|        |                       |
|--------|-----------------------|
| Step 1 | Turn off +28V biasing |
| Step 2 | Remove RF connection  |
| Step 3 | Remove Ground         |

### Environmental Specifications

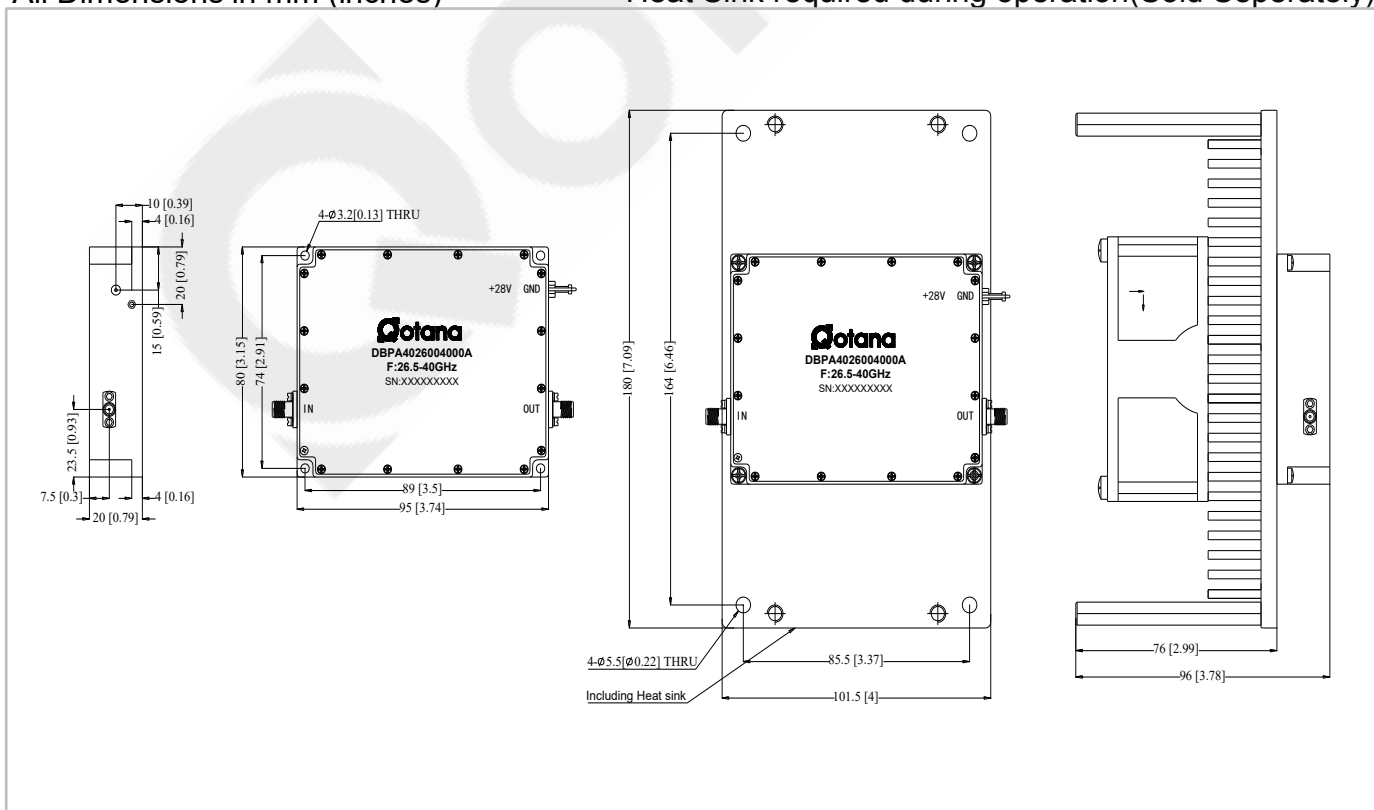
|                         |                                                                                  |
|-------------------------|----------------------------------------------------------------------------------|
| Operational Temperature | -45°C~+85°C                                                                      |
| Storage Temperature     | -55°C~+125°C                                                                     |
| Altitude                | 30,000 ft. (Epoxy Sealed Controlled environment)                                 |
|                         | 60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional) |
| Vibration               | 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis                             |
| Humidity                | 100% RH at 35°C, 95%RH at 40°C                                                   |
| Shock                   | 20G for 11msec half sine wave, 3 axis both directions                            |

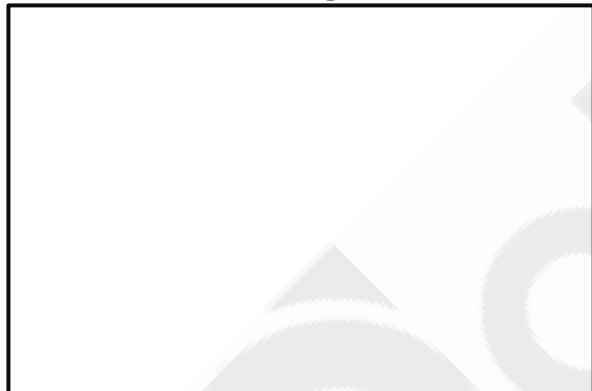
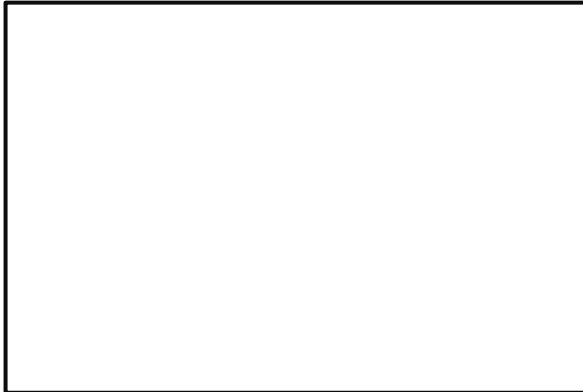
**Note:** The operating temperature for the unit is specified at the package base. It is the user's responsibility to ensure the part is in an environment capable of maintaining the temperature within the specified limits

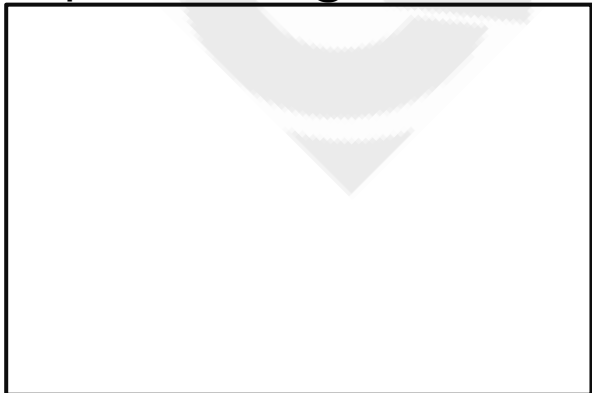
### Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)



**Gain@+25℃****Input Return Loss@+25℃****Output Return Loss@+25℃****Isolation @+25℃****Gain @-45℃****Input Return Loss @-45℃**

**Output Return Loss@-45℃****Isolation@-45℃****Gain@+85℃****Input Return Loss @+85℃****Output Return Loss@+85℃****Isolation@+85℃**

**Gain vs. Output Power****P1dB-P5dB vs. Frequency****Power Added Efficiency****Left IM3 vs. Pout****Right IM3 vs. Pout****Current**

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