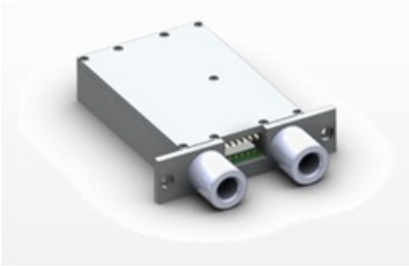




# A-VGAS2-3039

RF Engineering &  
Custom Build

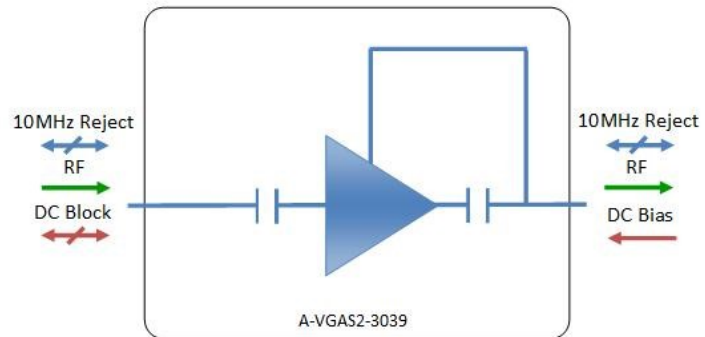
## Variable Gain S-band Amplifier



The A-VGAS2-3039 is a variable gain S-band (850-2500 MHz) amplifiers with 0 to 30dB gain settable in 1dB gain steps with a built in regulator, DC & 10 MHz block. The unit is powered in line from the RF cable onto the output port.

These components are available with the following RF connector options: 50 Ω SMA, N-type, BNC and 75 Ω

### Vector diagram



### RF Parameters

| A-VGAS2-3039-xxxx  | S5S5         | N5N5         | B5B5         | B7B7         | F7F7         |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Frequency Range    | 850-2500 MHz | 850-2500 MHz | 850-2500 MHz | 850-2500 MHz | 850-2500 MHz |
| RF Connectors      | 50Ω SMA      | 50Ω N-Type   | 50Ω BNC      | 75Ω BNC      | 75Ω F-Type   |
| Gain               | 0 –30 dB     | 0 –30 dB     | 0 –30 dB     | 0 –30 dB     | 0 –30 dB     |
| Flatness           | ± 0.8 dB     | ± 0.8 dB     | ± 1.0 dB     | ± 1.2 dB     | ± 1.2 dB     |
| Input Return Loss  | 17 dB typ    | 17 dB typ    | 15 dB typ    | 15 dB typ    | 15 dB typ    |
|                    | 14 dB min    | 14 dB min    | 12 dB min    | 8 dB min     | 8 dB min     |
| Output Return Loss | 17 dB typ    | 17 dB typ    | 15 dB typ    | 15 dB typ    | 15 dB typ    |
|                    | 14 dB min    | 14 dB min    | 12 dB min    | 8 dB min     | 8 dB min     |
| 1 dB GCP*          | 18 dB typ    | 18 dB typ    | 18 dB typ    | 18 dB typ    | 18 dB typ    |
|                    | 15 dB min    | 15 dB min    | 15 dB min    | 15 dB min    | 15 dB min    |
| IP3                | 28           | 28           | 28           | 28           | 28           |
| Noise Figure       | 12           | 12           | 12           | 12           | 12           |

#### BROADCAST



#### MARINE OIL & GAS



#### SNG & VSAT



#### SATELLITE TELEPORT





# Variable Gain L-band Amplifier

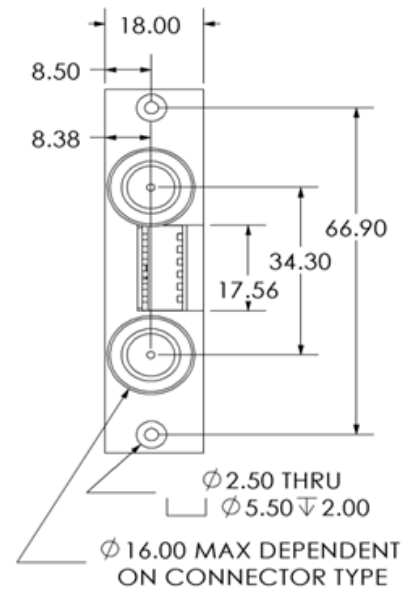
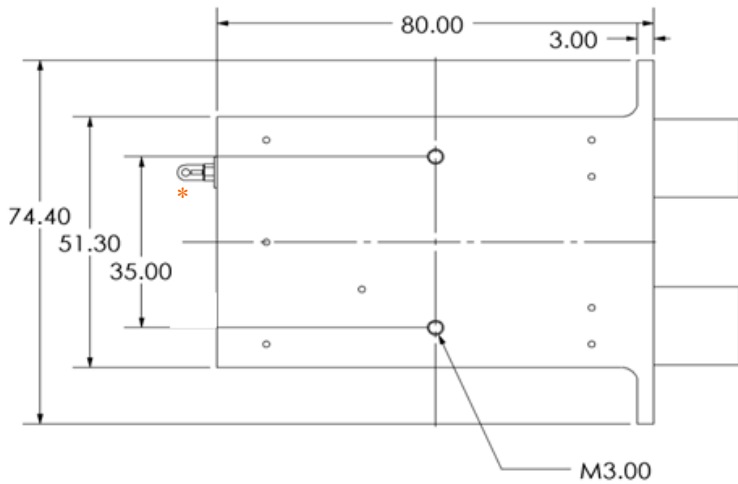
### Environmental

|                       |                                |
|-----------------------|--------------------------------|
| Operating Temperature | 0°C to 55°C                    |
| Storage Temperature   | -20°C to +75 °C                |
| Location              | Indoor use Only                |
| Humidity              | 85 % non-condensing            |
| Altitude              | 10,000 ft above mean sea level |

### Max Operating Parameters

|                |                       |     |
|----------------|-----------------------|-----|
| Input RF Power | 24 dBm (250mW)        |     |
| Voltage        | RF ports              | 35V |
|                | DC bias               | 28V |
| DC Consumption | 200 mA Max 160 mA Typ |     |

### Physical dimensions



\* In-line powered modules do not have the DC filter connection

### Gain Settings

| Switch settings | 1  | 2 | 3 | 4 | 5 | 6   | Other features   |
|-----------------|----|---|---|---|---|-----|--|
| Attenuation     | 16 | 8 | 4 | 2 | 1 | n/a | Attenuation settings when the selected switch is at ON state |
| Max Gain        | 1  | 1 | 1 | 1 | 1 | n/a | Max gain (0dB attenuation setting)                           |
| Min gain        | 0  | 0 | 0 | 0 | 0 | n/a | Min gain (31dB attenuation setting)                          |

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## Variable Gain L-band Amplifier

### Alternative L-band 850-2150 MHz Gain Block Amplifiers

| Model Numbers | Bias Option* | Freq vs. Gain | Gain Options (dB) | Other features  |
|---------------|--------------|---------------|-------------------|---|
| 3011          | In-Line      | Flat          | 0 to 30           | DC block and 10MHz Block on all ports                 |
| 3015          | In-Line      | Flat          | 0 to 30           | DC block and 10MHz Block on all ports with LNB inject |
| 3013          | In-Line      | Flat          | 0 to 30           | DC block and 10MHz pass on all ports                  |
| 3014          | In-Line      | Flat          | 0 to 30           | DC Pass and 10MHz Pass on all ports                   |
| 3016          | External     | Flat          | 0 to 30           | DC block and 10MHz Block on all ports                 |
| 3017, 3020    | External     | Flat          | 0 to 30           | DC block and 10MHz Block on all ports with LNB inject |
| 3018          | External     | Flat          | 0 to 30           | DC Block and 10MHz Pass on all ports                  |
| 3019          | External     | Flat          | 0 to 30           | DC Pass and 10MHz Pass on all ports                   |

### PSU range available

**PSU12F125-9701**



**PSU120V02-9702**



**PSU48F150-9703**



### PSU range available

| Model Number       | Input               | Output              | Other                     |
|--------------------|---------------------|---------------------|---------------------------|
| PSU12F125-9701-SLP | 100-240V (AC), 0.6A | 12V (DC), 1.25A     | Solder pin output         |
| PSU12F125-9701-ML2 | 100-240V (AC), 0.6A | 12V (DC), 1.25A     | Female 3 pin Molex socket |
| PSU120V02-9702-SLP | 100-240V (AC), 1.2A | 12V to 24V (DC), 5A | Solder pin output         |
| PSU120V02-9702-ML2 | 100-240V (AC), 1.2A | 12V to 24V(DC) 5A   | Female 3 pin Molex socket |
| PSU48F150-9703-SLP | 100-240V (AC), 2.5A | 48V (DC), 3.13A     | Solder pin output         |
| PSU48F150-9703-ML2 | 100-240V (AC), 2.5A | 48V (DC), 3.13A     | Female 3 pin Molex socket |

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