



# RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

## RFHB05G26GVK

### Coaxial 20W 90° Hybrid Coupler 5 - 26.5GHz



#### Features

- High power handling up to 20W
- Wide band operation
- High isolation within operational band
- Stable performance over temperature
- Low Insertion Loss
- High peak to average handling capability

#### Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation

#### Electrical Specifications, $T_A=25^\circ\text{C}$

| Parameters                |         | Min.        | Typ.      | Max.      | Min. | Typ.      | Max.      | Units  |
|---------------------------|---------|-------------|-----------|-----------|------|-----------|-----------|--------|
| Frequency Range           |         | 5           |           | 18        | 18   |           | 26.5      | GHz    |
| Nominal Coupling          |         |             | 3         |           |      | 3         |           | dB     |
| Insertion Loss            |         |             | 0.8       | 1.0       |      | 0.9       | 1.3       | dB     |
| Isolation                 |         | 16          | 18        |           | 14   | 16        |           | dB     |
| Amplitude Imbalance       |         |             | $\pm 0.5$ | $\pm 0.6$ |      | $\pm 0.4$ | $\pm 0.6$ | dB     |
| Phase Imbalance           |         |             | $\pm 4$   | $\pm 6$   |      | $\pm 5$   | $\pm 7$   | deg    |
| VSWR                      |         |             | 1.4       | 1.6       |      | 1.5       | 1.7       | : 1    |
| Power Rating              | Average | 20          |           |           |      |           |           | W      |
|                           | Peak    | 300         |           |           |      |           |           | W      |
| Impedance                 |         | 50          |           |           |      |           |           | Ohms   |
| Weight                    |         | 1.06        |           |           |      |           |           | ounces |
| Input / Output Connectors |         | 2.92-Female |           |           |      |           |           |        |
| Material                  |         | Aluminum    |           |           |      |           |           |        |
| Finishing                 |         | Blue paint  |           |           |      |           |           |        |

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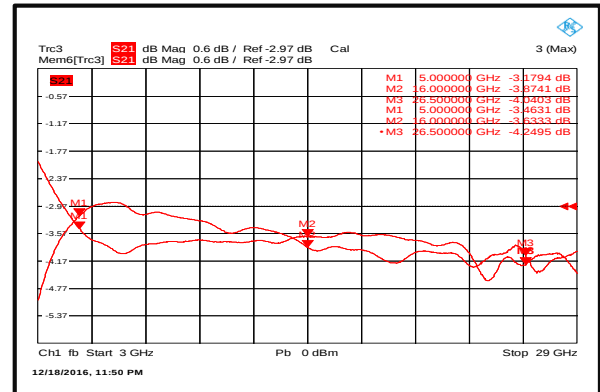


### Environmental Specifications

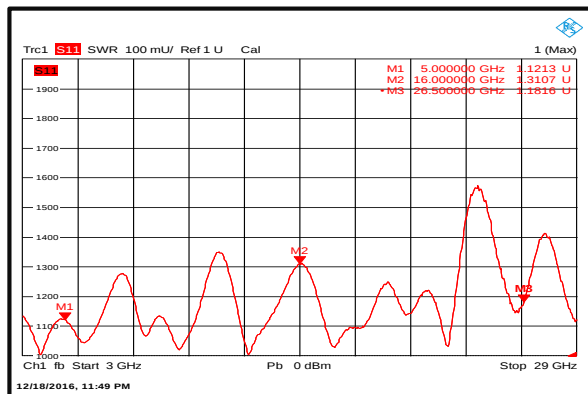
|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| Operational Temperature (°C) | -45 ~ +85              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

### Typical Performance Plots

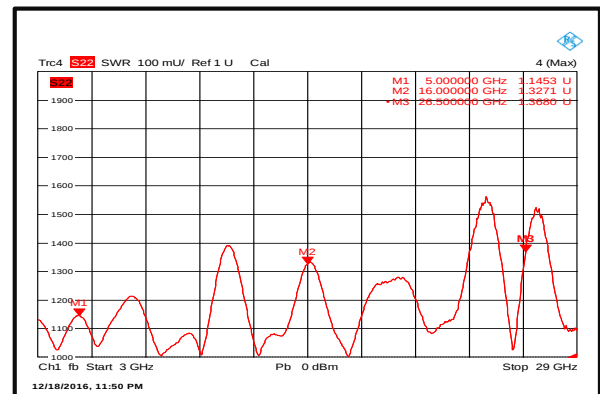
#### Loss & Amplitude Imbalance



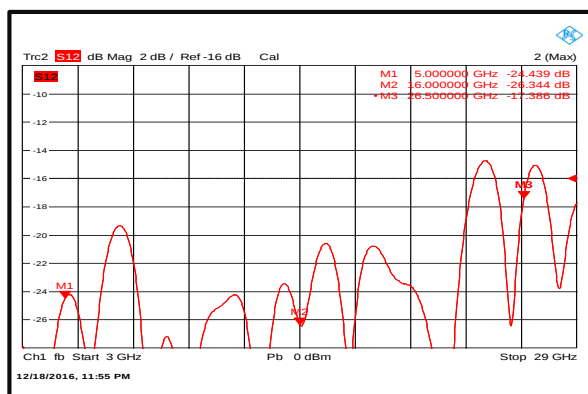
#### Input VSWR



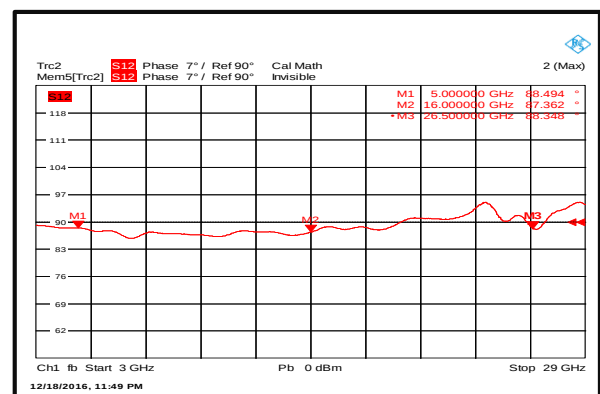
#### Output VSWR



#### Isolation



#### Phase Imbalance





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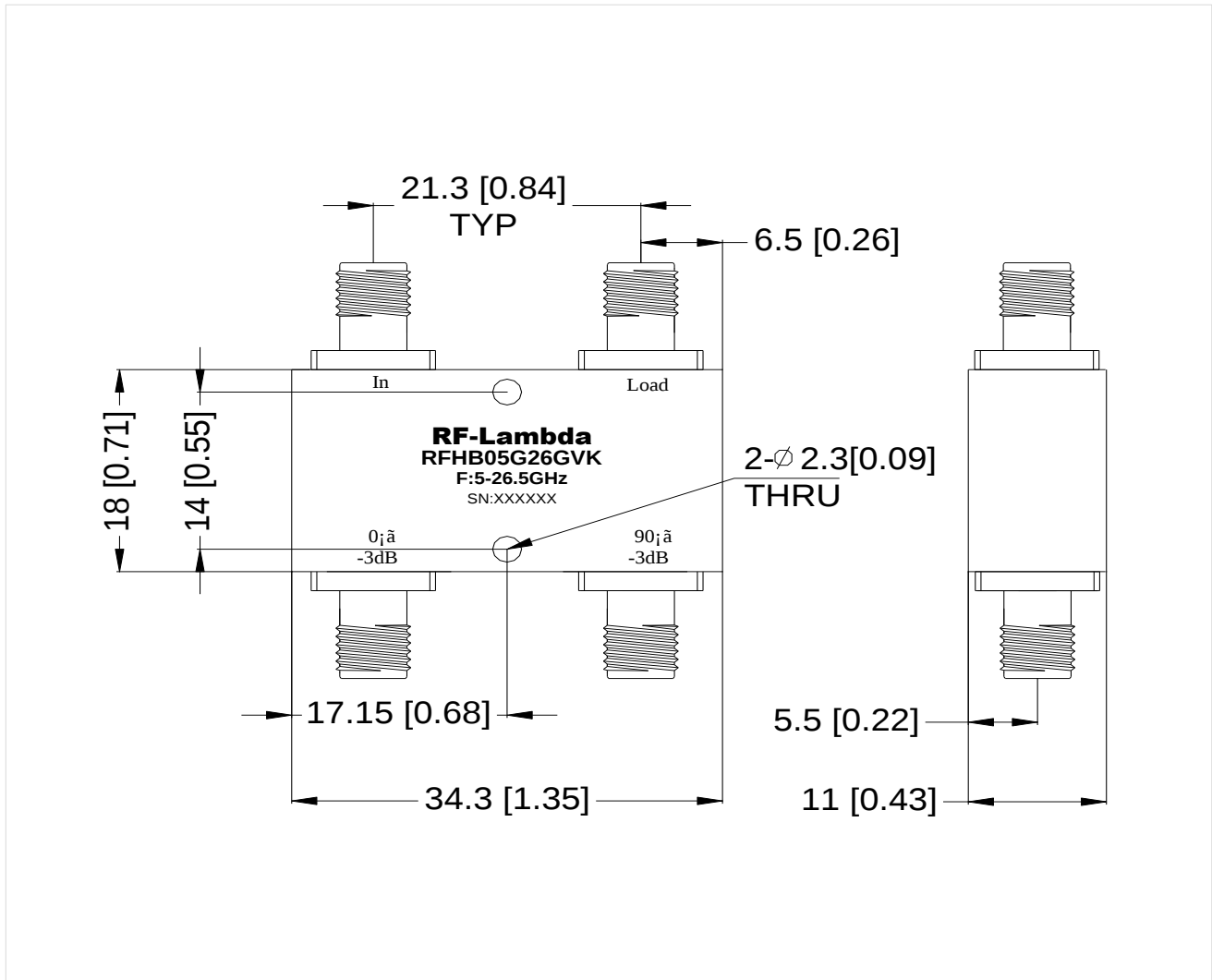
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### Outline Drawing:

All Dimensions in mm [inches]

Tolerance  $\pm 0.2$  [0.008]



### Important Notice

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