



# Directional Coupler

7.0—12.4 GHz

- High power handle capability up to 50W
- High Directivity
- Low Insertion loss
- Low temperature coefficient material offer stable
- LMDS multi-carrier operation



| RF Parameters                  |         | Min.                                   | Typ. | Max. | Units  |
|--------------------------------|---------|--|------|------|--------|
| Frequency Range                |         | 7                                      |      | 12.4 | GHz    |
| Nominal Coupling               |         | 5                                      | 6    | 7    | dB     |
| Frequency Sensitivity          |         |  | ±0.3 | ±0.5 | dB     |
| Directivity                    |         | 13                                     | 15   |      | dB     |
| Insertion Loss (Excl Coupling) |         |  |      | 0.3  | dB     |
| Insertion Loss (true)          |         |  | 1.5  | 1.8  | dB     |
| Primary VSWR                   |         |  | 1.2  | 1.3  | : 1    |
| Secondary VSWR                 |         |  | 1.2  | 1.3  | : 1    |
| Power Rating                   | Average | 50                                     |      |      | W      |
|                                | Peak    | 1<br>(1% Duty Cycle, 1 us Pulse Width) |      |      | W      |
| Impedance                      |         | 50                                     |      |      | Ohms   |
| Weight                         |         | 0.8 Max.                               |      |      | ounces |
| Input / Output Connectors      |         | SMA-Female (Stainless steel)           |      |      |        |
| Material                       |         | Aluminium                              |      |      |        |
| Finishing                      |         | Gray Paint                             |      |      |        |

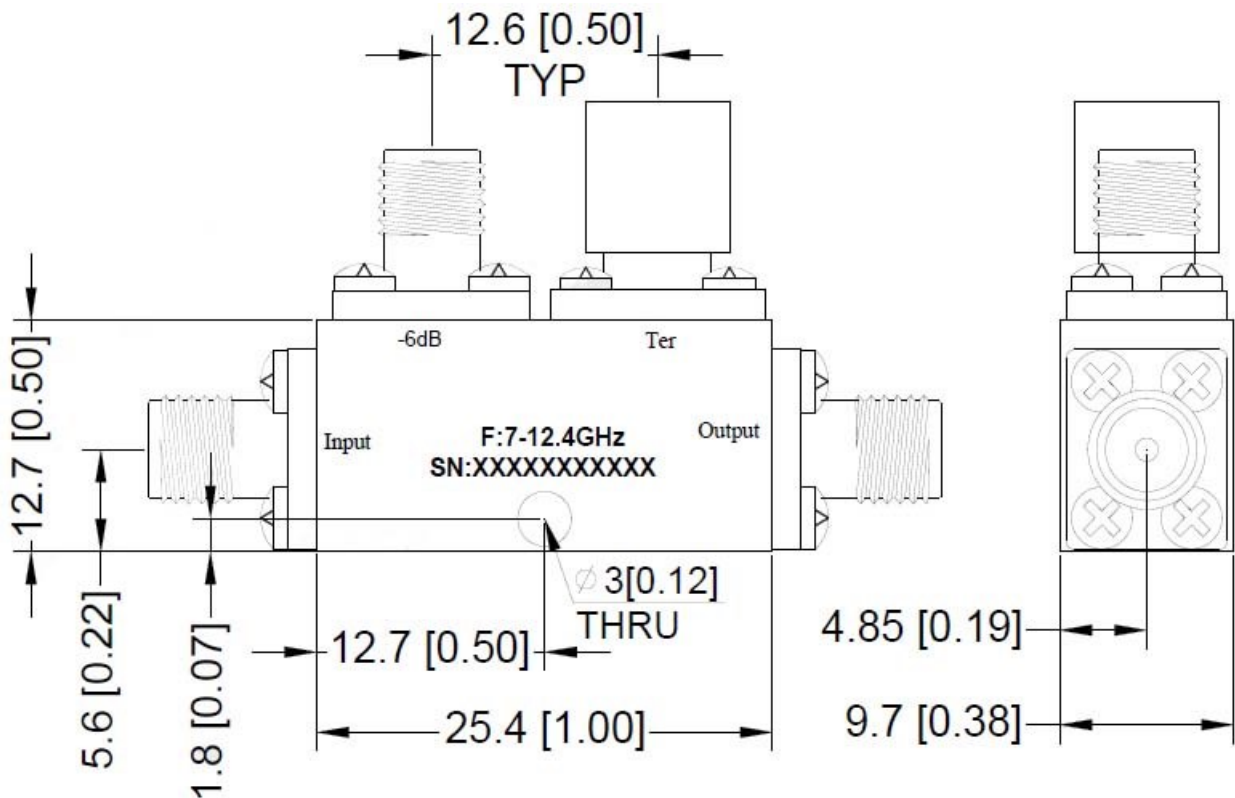




| Environmental Specification |   |
|-----------------------------|---|
| Operational Temperature     | -40°C~+85°C   |
| Storage Temperature         | -50°C~+105°C  |
| Altitude                    | 30,000 ft. (Epoxy Sealed Controlled environment)                      |
| (Optional)                  | 60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) |
| 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                 |

**Physical dimensions ±0.5mm (0.02 inches):**

Mounting Holes Tolerances ±0.2mm (0.008 inches)



Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.  
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.