

50Ω Divide-BY-8, DC-18 GHz

Case PN: 6UDD2W6S1A2

Features:

- Divide by M: (M = 8)
- Ultra Low SSB Phase Noise -150 dBc/Hz
- Input frequency range: DC-18 GHz
- Output Power: -4 dBm
- Single DC Supply: +5V
- Low Power Consumption: 103 mA
- Rugged, shielded case (SMA Connector)

Applications:

- Cellular, Satellite Communication Systems
- PCS, W-CDMA, ISM, LTE
- SDR & Ham Radio/Fiber Optic/Test Equipment

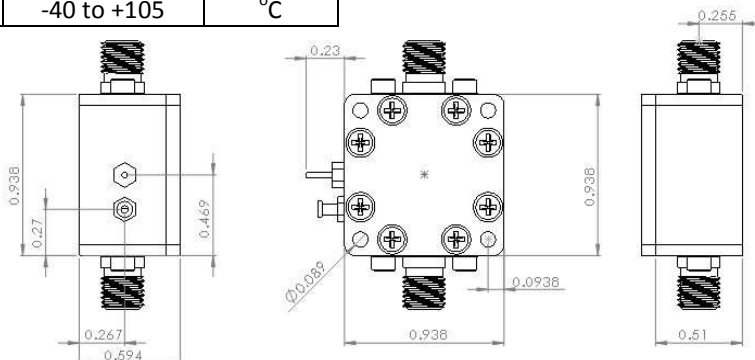
**Electrical Specifications (Test Conditions: $T_A = +25^\circ\text{C}$, 50 Ohm System, $V_{CC}=+5\text{V}$)**

| No. | Parameter | Conditions | Electrical Specification | | | |
|-----|----------------------------------|--|--------------------------|------|-----|--------|
| | | | MIN | TYP. | MAX | UNITS |
| 1 | Maximum Input Frequency | | 18 | 19 | | GHz |
| 2 | Minimum Input Frequency | Since Wave Input [Note 1] | | 0.2 | 0.5 | GHz |
| 3 | Input Power Range | $F_{in} = 2$ to 14 GHz | -20 | -15 | +10 | dBm |
| | | $F_{in} = 14$ to 16 GHz | -20 | -15 | +5 | dBm |
| | | $F_{in} = 16$ to 18 GHz | -15 | -10 | 0 | dBm |
| 4 | Output Power | $F_{in} = 0.5$ to 18 GHz | -7 | -4 | | dBm |
| 5 | Reverse Leakage | RF Output Terminated, $P_{in}=0$ dBm, $F_{in}=8$ GHz | | -55 | | dBm |
| 6 | SSB Phase Noise (100 kHz offset) | $P_{in}=0$ dBm, $F_{in} = 6$ GHz | | -150 | | dBc/Hz |
| 7 | Output Transition Time | $P_{in} = 0$ dBm, $F_{out} = 882$ MHz | | 100 | | ps |
| 8 | Supply Current (I_{CC}) | $V_{CC} = 5$ V | | 103 | | mA |

Note 1: Divider will operation down to DC for Square-wave input signal

Absolute Maximum Ratings

| Item | Parameter | Rating | UNITS |
|------|--|-------------|------------------|
| 1 | RF Input Power ($V_{CC} = +5\text{V}$) | +13 | dBm |
| 2 | V_{CC} | +5.5 | V |
| 3 | Storage Temperature | -65 to +150 | $^\circ\text{C}$ |
| 4 | Operating Temperature | -40 to +105 | $^\circ\text{C}$ |

Outline Drawing (Inch)**Lotus Communication Systems, Inc.**

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