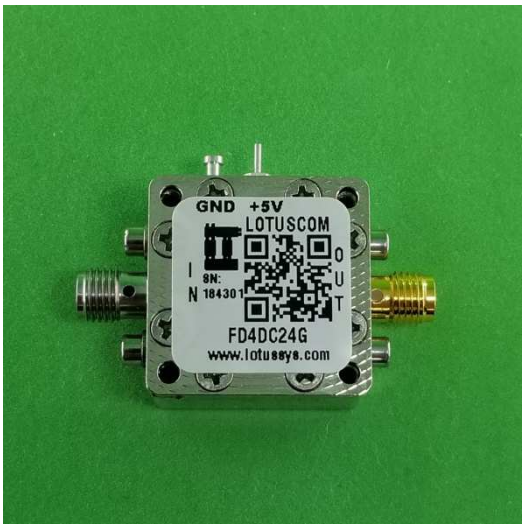
# Frequency Divider DC to 24 GHz (÷2) FD2DC24G

## 50Ω Divide-BY-2, DC-24 GHz

Case PN: 6UDD2W6S1A2

**Features:**

- **Divide by M: (M = 2)**
- **Ultra Low SSB Phase Noise -153 dBc/Hz**
- **Input frequency range: DC-24 GHz**
- **Output Power: 3 dBm**
- **Single DC Supply: +5V**
- **Low Power Consumption: 73 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°C, 50 Ohm System, Vcc=+5V)**

| No. | Parameter | Conditions | Electrical Specification | | | |
|---|---|---|---|---|---|---|
| | | | MIN | TYP. | MAX | UNITS |
| 1 | Maximum Input Frequency | | 18 | 24 | | GHz |
| 2 | Minimum Input Frequency | Since Wave Input [Note 1] | | 0.1 | | GHz |
| 3 | Input Power Range | Fin = 0.1 to 18 GHz | -15 | | +10 | dBm |
| | | Fin = 18 to 24 GHz | -5 | | +10 | dBm |
| 4 | Output Power | Fin = 0.1 to 18 GHz | 0 | +3 | +5 | dBm |
| | | Fin = 18 to 24 GHz | -3 | 0 | +3 | |
| 5 | Reverse Leakage | RF Output Terminated, Pin=0 dBm, Fin=6 GHz | | -55 | | dBm |
| 6 | SSB Phase Noise (100 kHz offset) | Pin=0 dBm, Fin=6 GHz | | -153 | | dBc/Hz |
| 7 | Supply Current (Icc) | Vcc = 5 V | 64 | 73 | 84 | mA |

Note 1: Square wave input is recommended for <650MHz input for best phase performance. If a sine wave input below 650 MHz is used, we recommend the drive level >5 dBm for best operation.

### Absolute Maximum Ratings

| Item | Parameter | Rating | UNITS |
|---|---|---|---|
| 1 | RF Input Power (Vcc = +5V) | +13 | dBm |
| 2 | Vcc | +5.5 | V |
| 3 | Storage Temperature | -65 to +150 | °C |
| 4 | Operating Temperature | -40 to +85 | °C |

### Outline Drawing (Inch)