

50Ω Divide-BY-8, DC-24 GHz

Case PN: 6UDD2W6S1A2

Features:

- Divide by M: (M = 8)
- Ultra Low SSB Phase Noise -155 dBc/Hz
- Input frequency range: DC-24 GHz
- Output Power: 2 dBm
- Single DC Supply: +5V
- Low Power Consumption: 81 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	24		GHz
2	Minimum Input Frequency	Since Wave Input [Note 1]		0.1		GHz
3	Input Power Range	$F_{in} = 0.1$ to 20 GHz	-15		+10	dBm
		$F_{in} = 20$ to 24 GHz	-5		+10	dBm
4	Output Power	$F_{in} = 0.1$ to 24 GHz	0	+2	+4	dBm
5	Reverse Leakage	RF Output Terminated, $P_{in}=0$ dBm, $F_{in}=6$ GHz		-70		dBm
6	SSB Phase Noise (100 kHz offset)	$P_{in}=0$ dBm, $F_{in}=6$ GHz		-155		dBc/Hz
7	Supply Current (I_{CC})	$V_{CC} = 5$ V	71	81	94	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 ($V_{CC} = +5\text{V}$)	+13	dBm
2	V_{CC}	+5.5	V
3	Storage Temperature	-65 to +150	$^\circ\text{C}$
4	Operating Temperature	-40 to +85	$^\circ\text{C}$

Outline Drawing (Inch)