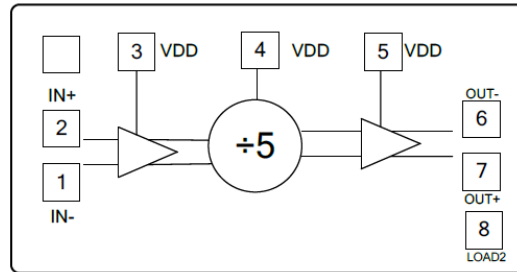


Features

- Frequency: DC-8GHz
- Output Power: 0.2dBm
- Single Power Supply: +5V/82mA
- Die Size: 2.1 x 0.88 x 0.1 mm

Functional Block Diagram

Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

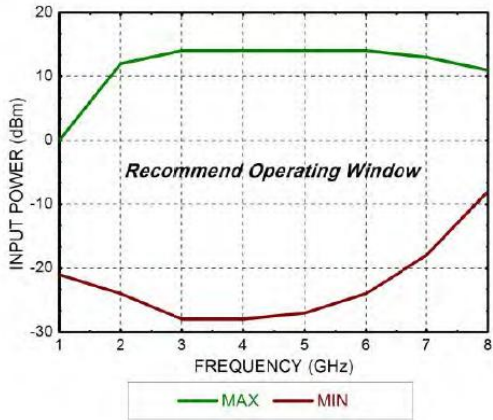
Electrical Specifications
TA = +25°C, VDD = +5V, IDD=82mA

Parameters	Condition	Min.	Typ.	Max.	Units
Maximum Input Frequency			8		GHz
Minimum Input Frequency	Sine Wave*		1		GHz
Input Power	$f_{IN}=1\text{GHz}$	-21	-5	0	dBm
	$f_{IN}=2-8\text{GHz}$	-27	0	+14	dBm
Output Power	$f_{IN}=\text{DC-8GHz}$		0.2		dBm
Single sideband phase noise @100kHz offset	$P_{IN}=0\text{dBm}$, $f_{IN}=5\text{GHz}$		-140		dBc/Hz
Reverse Leakage	OUT+,OUT-, Terminated		55		dB
Operating Current (IDD)			82		mA

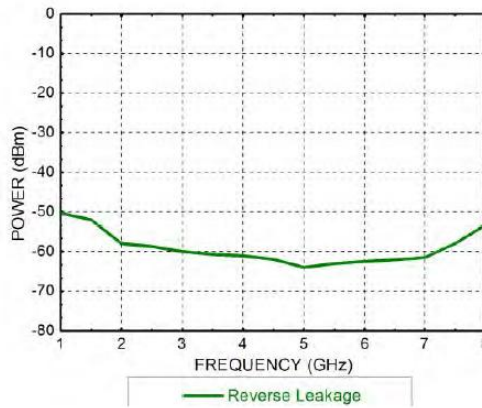
*if input signal is square wave, then the divider can work at DC.



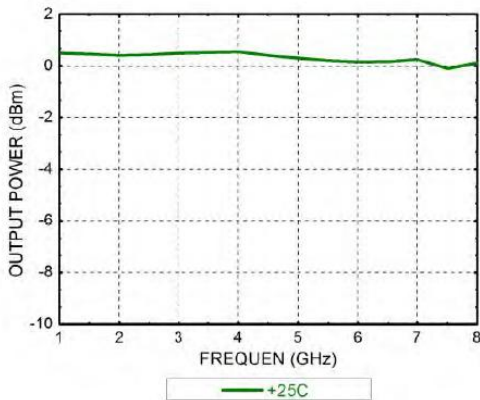
Input sensitivity window, T=25°C



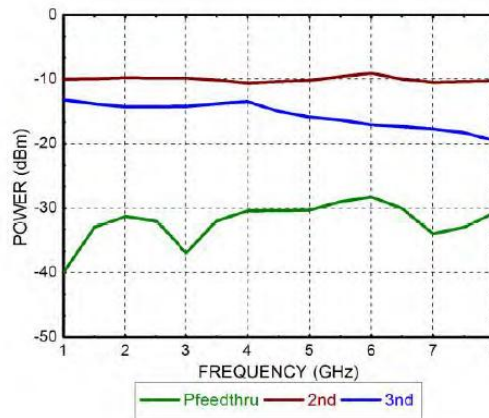
Reverse Leakage , Pin=0dBm, T=25°C



Output Power, T=25°C

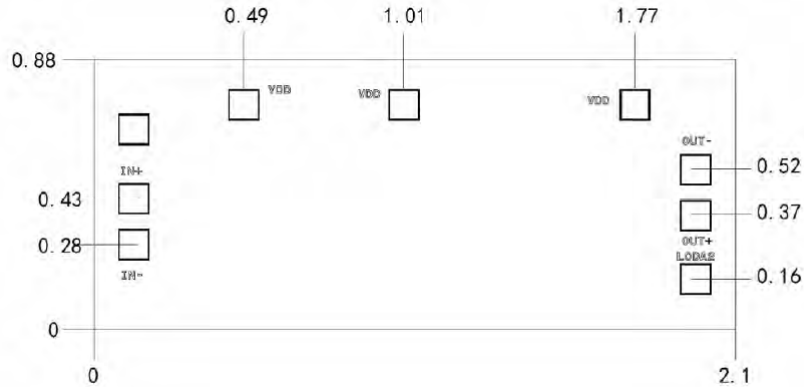


Output Harmonic, Pin=0dBm, T=25°C





Outline Drawing:
All Dimensions in mm

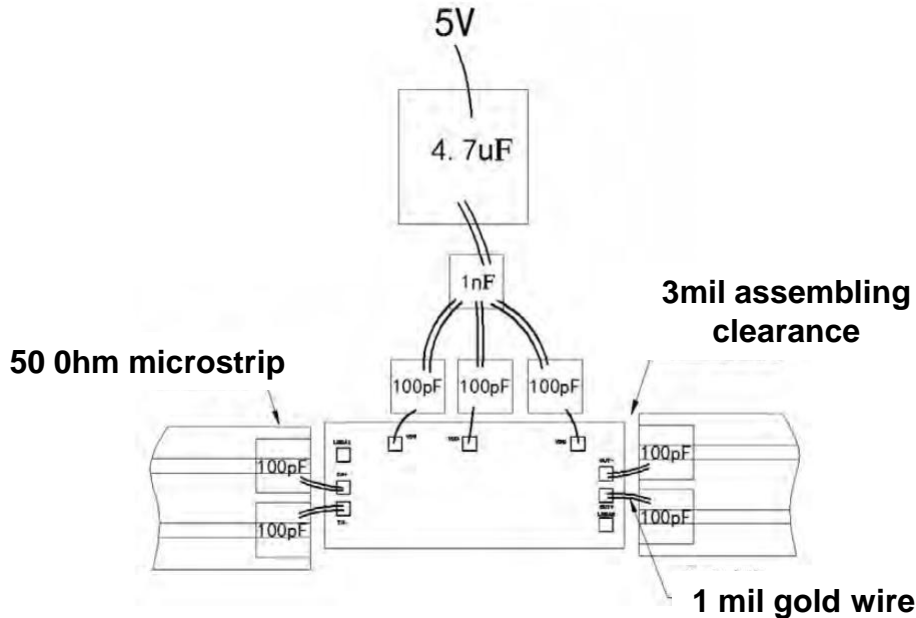


Pad Description

Pad	Function	Description
1	IN-	RF input, external DC blocking capacitor required. 180° phase difference with Pad2.
2	IN+	RF input, external DC blocking capacitor required.
3,4,5	VDD	Power supply +5V, external 100pF/1nF/4.7uF bypass capacitor required.
6	OUT-	Divided signal output, external DC blocking capacitor required. 180° phase difference with Pad7.
7	OUT+	Divided signal output, external DC blocking capacitor required.
8	LOAD2	Single-ended output configuration port, when Pad7 not used, connect it with Pad8.
Die bottom	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing



- For single-ended input, parallel connect 100pF capacitor and 30kΩ resistor between Pad2 and ground, signal input from Pad1
- For single-ended output, connect Pad7 and Pad8 with gold bonding, signal output from Pad6

Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. Maximum drain voltage: +5.5V
2. Operating temperature: -55°C to +85°C
3. Storage temperature: -65°C to +150°C