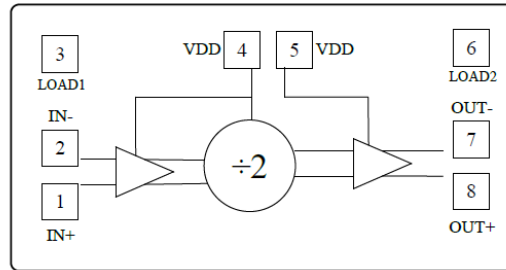


Features

- Frequency: DC-12GHz
- Output Power: 0dBm
- Single Power Supply: +5V/78mA
- Die Size: 1.5 x 0.75 x 0.1 mm

Functional Block Diagram

Typical Applications

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

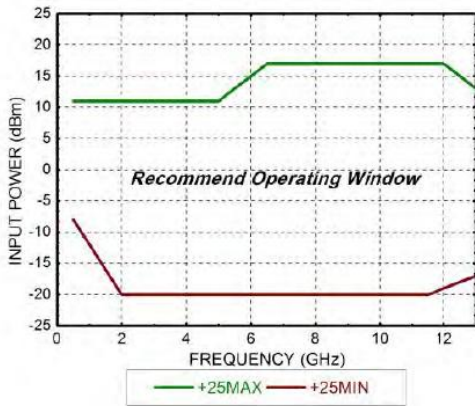
Electrical Specifications

TA = +25°C, VDD = +5V, IDD=78mA

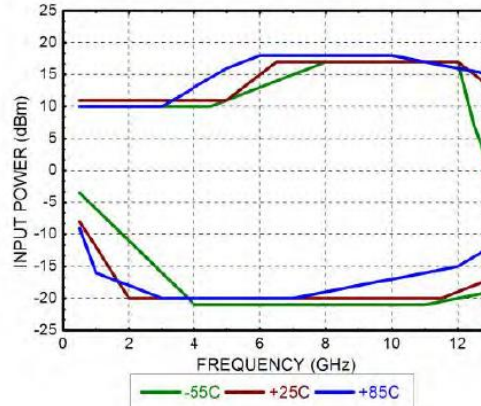
Parameters	Condition	Min.	Typ.	Max.	Units
Maximum Input Frequency			12		GHz
Minimum Input Frequency	Sine Wave*		0.6		GHz
Input Power	f _{IN} =1-12GHz	-20	0	+17	dBm
Output Power	f _{IN} =1-10GHz	-1	0		dBm
	f _{IN} =11-12GHz	-2	-1		dBm
Single sideband phase noise @100kHz offset	P _{IN} =0dBm, f _{IN} =9GHz		-140		dBc/Hz
Reverse Leakage	OUT+,OUT-, Terminated		53		dB
Operating Current (IDD)			78		mA

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

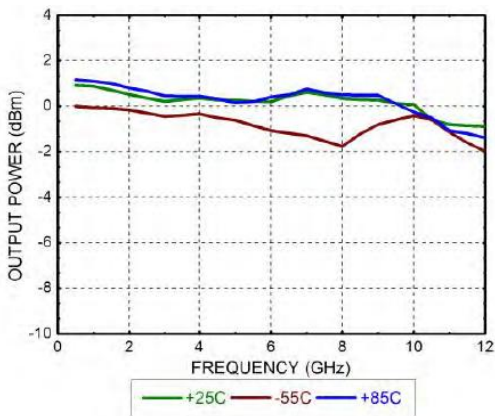
Input sensitivity window, T=25°C



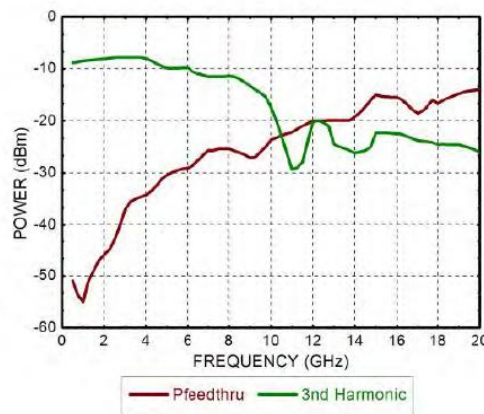
Input sensitivity window vs. Temperature



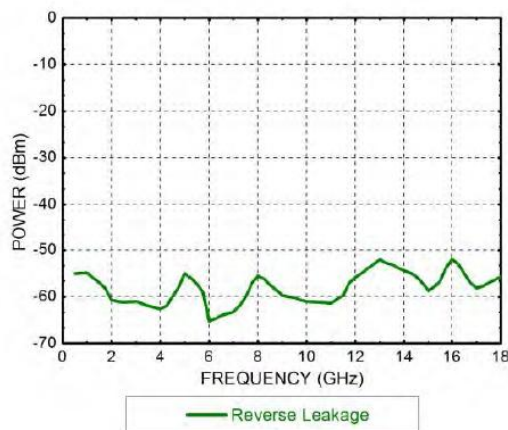
Output Power vs. Temperature



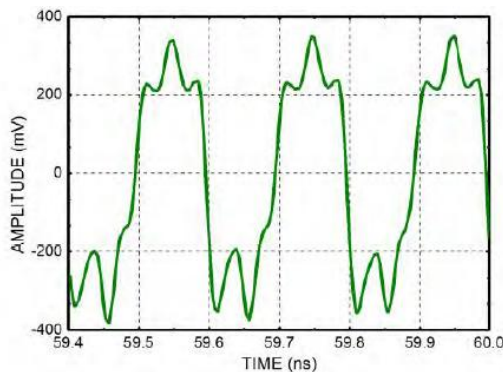
Output Harmonic, Pin=0dBm, T=25°C



Reverse Leakage, Pin=0dBm, T=25°C

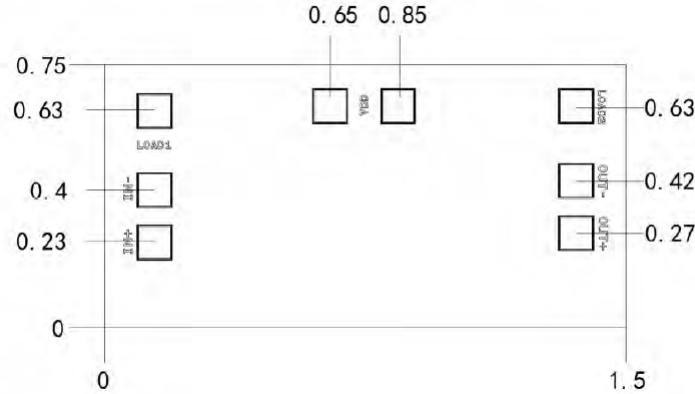


Output Waveform, Fout=5GHz, Pin=0dBm, T=25°C





Outline Drawing:
All Dimensions in mm

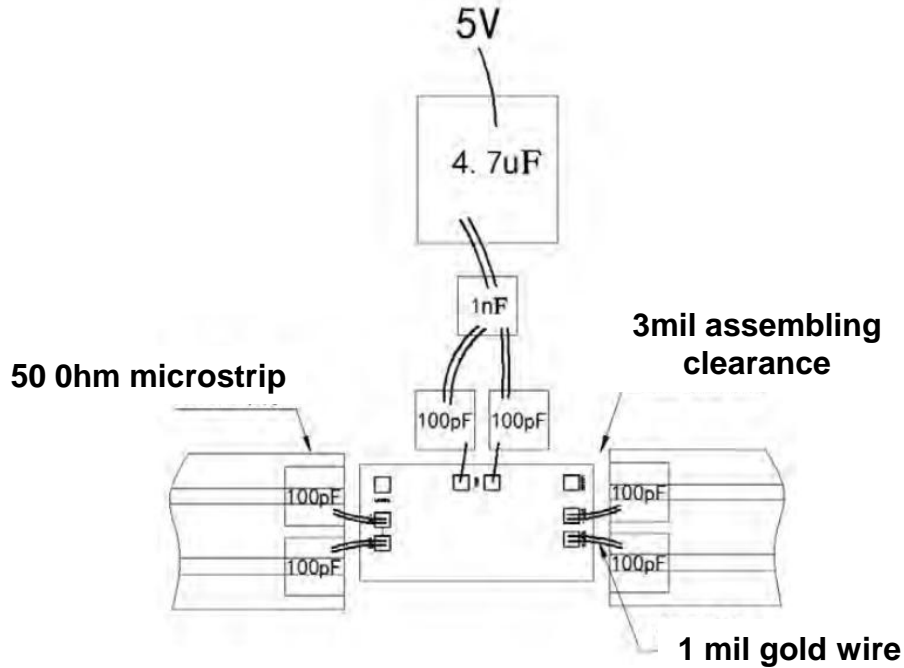


Pad Description

Pad	Function	Description
1	IN+	RF input, external DC blocking capacitor required.
2	IN-	RF input, external DC blocking capacitor required. 180° phase difference with Pad1.
3	LOAD1	Single-ended input configuration port, when Pad2 not used, connect it with Pad3
4,5	VDD	Power supply +5V, external 100pF/1nF/4.7uF bypass capacitor required.
6	LOAD2	Single-ended output configuration port, when Pad7 not used, connect it with Pad6
7	OUT-	Divided signal output, external DC blocking capacitor required. 180° phase difference with Pad8
8	OUT+	Divided signal output, external DC blocking capacitor required.
Die bottom	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing



- For single-ended input, connect Pad2 and Pad3 with gold bonding, signal input from Pad1
- For single-ended output, connect Pad6 and Pad7 with gold bonding, signal output from Pad8

Notes:

1. Die thickness: 100µm
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