

# HMC128G8

GaAs MMIC SMT DOUBLE-

BALANCED MIXER, 1.8 - 5 GHz

v02.1105



#### **Conversion Gain**



**Return Loss** 



Isolation



#### Distortion and 1dB Compression vs. LO Drive Level

	Distortion		
LO Drive	RF(f1) = 3.01 GHz RF(f2) = 3.00 GHz LO = 3.5 GHz RF Level = 0 dBm		1 dB Compression
(dBm)	IP3 (dBm)	IP2 (dBm)	P1dB (dBm)
+10	16	38	8
+13	18	40	10
+15	18	40	10

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# ROHS

#### Absolute Maximum Ratings

LO Drive	+27 dBm
Storage Temperature	-65 to +150 °C
Operating Temperature	-55 to +125 °C



ELECTROSTATIC SENSITIVE DEVICE OBSERVE HANDLING PRECAUTIONS

#### Outline Drawing



- 4. DIMENSIONS ARE IN INCHES [MILLIMETERS].
- 5. TOLERANCES: ±.005 [0.13] UNLESS OTHERWISE SPECIFIED.
- 6. ALL GROUND LEADS AND GROUND PADDLE MUST BE SOLDERED TO PCB RF GROUND.

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### **Evaluation PCB**



#### List of Materials for Evaluation PCB 104882 [1]

Item	Description
J1 - J3	PCB Mount SMA RF Connector
U1	HMC128G8 Mixer
PCB [2]	104880 Evaluation Board

Reference this number when ordering complete evaluation PCB
Circuit Board Material: Rogers 4350

#### The circuit board used in the final application should use RF circuit design techniques. Signal lines should have 50 ohm impedance while the package ground leads and exposed paddle should be connected directly to the ground plane similar to that shown. A sufficient number of via holes should be used to connect the top and bottom ground planes. The evaluation circuit board shown is available from Hittite upon request.

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