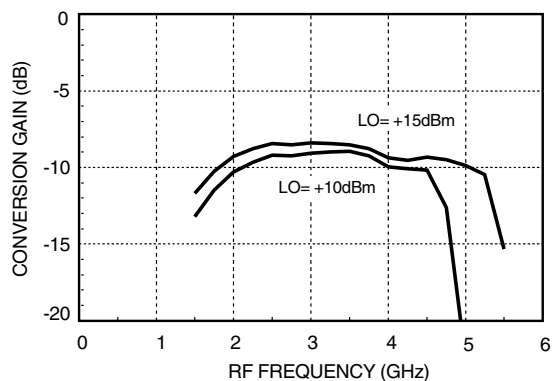


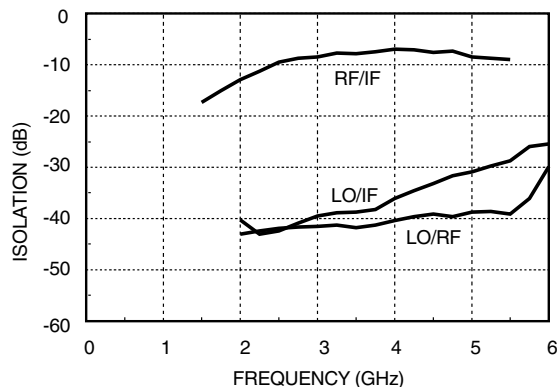


**GaAs MMIC SMT DOUBLE-
BALANCED MIXER, 1.8 - 5 GHz**

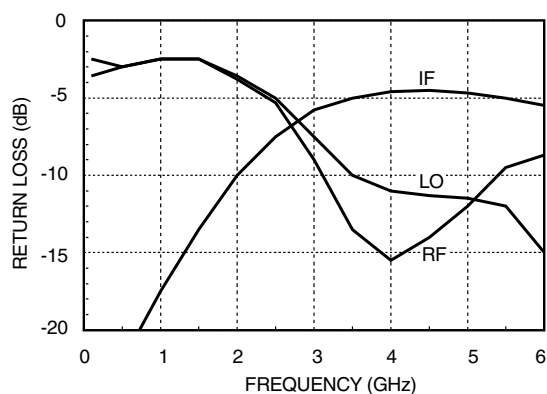
Conversion Gain



Isolation



Return Loss



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

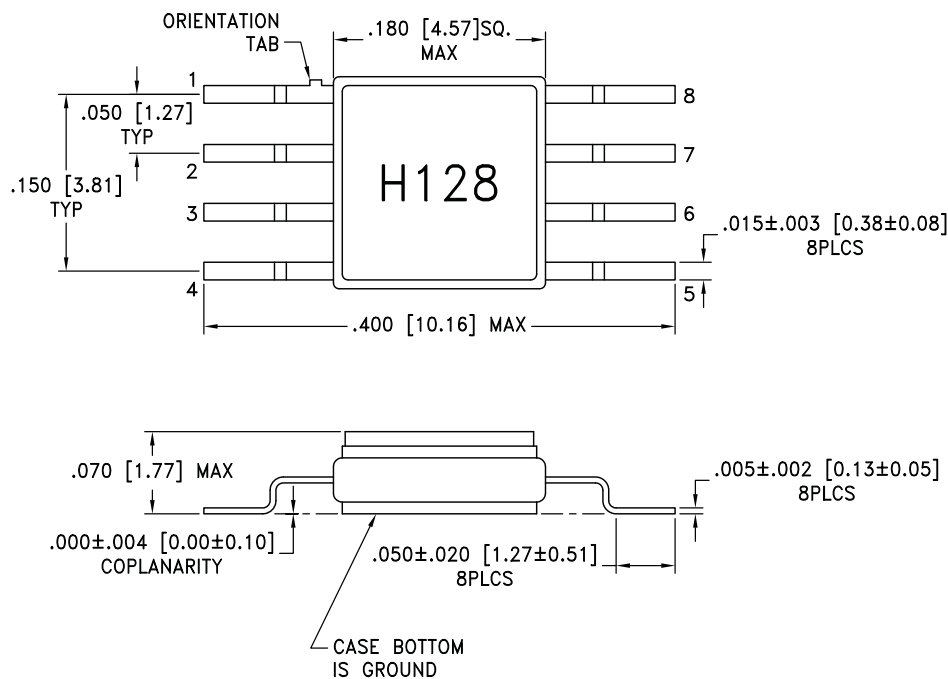
LO Drive (dBm)	Distortion		1 dB Compression
	IP3 (dBm)	IP2 (dBm)	
+10	16	38	8
+13	18	40	10
+15	18	40	10


**GaAs MMIC SMT DOUBLE-
BALANCED MIXER, 1.8 - 5 GHz**
Absolute Maximum Ratings

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

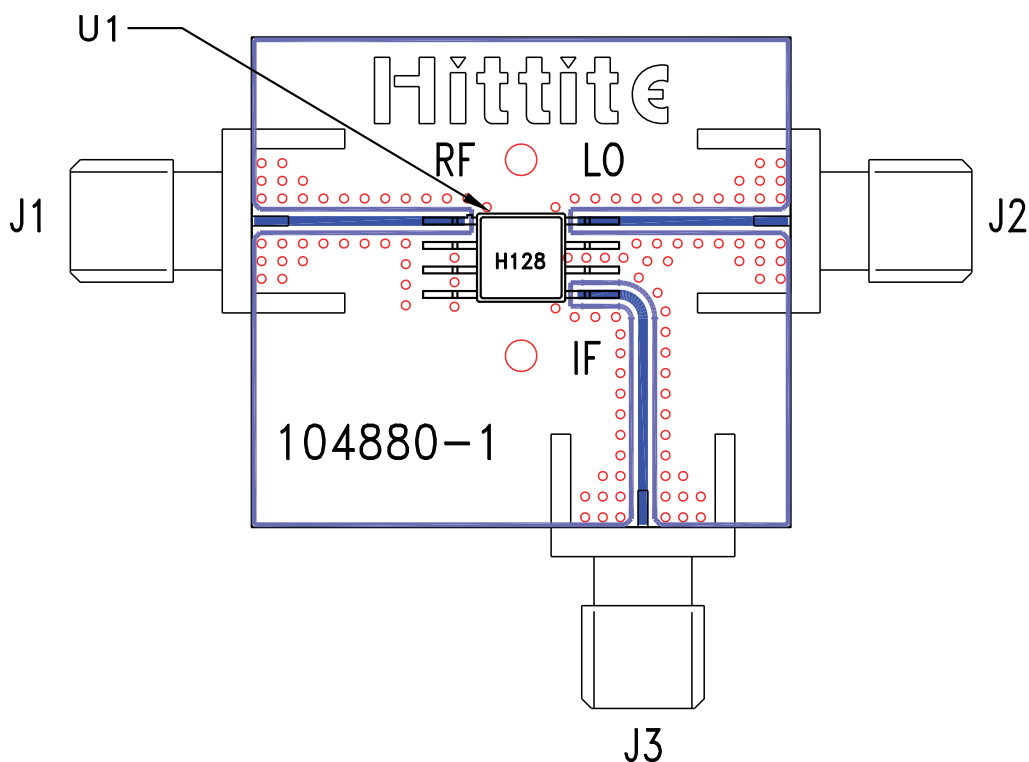


**ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS**

Outline Drawing

NOTES:

1. PACKAGE MATERIAL: ALUMINA LOADED BOROSILICATE GLASS.
2. LEAD, BASE, COVER MATERIAL: KOVAR™ (#7052 CORNING).
3. PLATING: ELECTROLYTIC GOLD 50 MICROINCHES MIN., OVER ELECTROLYTIC NICKEL 50 MICROINCHES MIN.
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.

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

[1] Reference this number when ordering complete evaluation PCB

[2] 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.