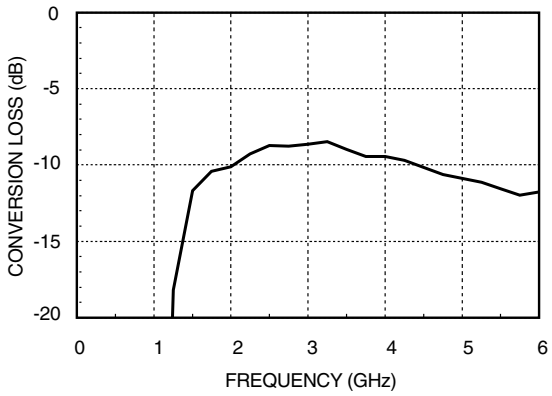
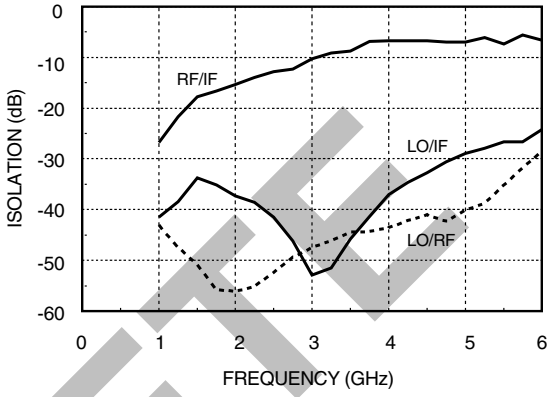
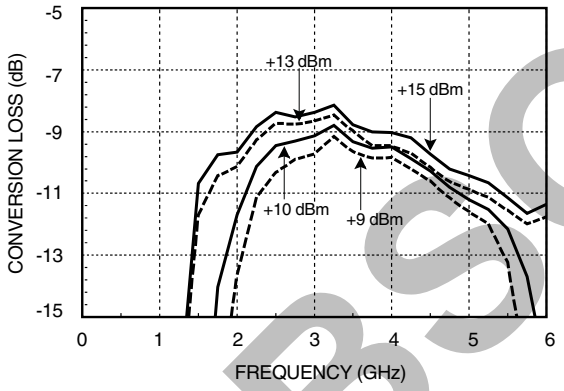
Conversion Loss



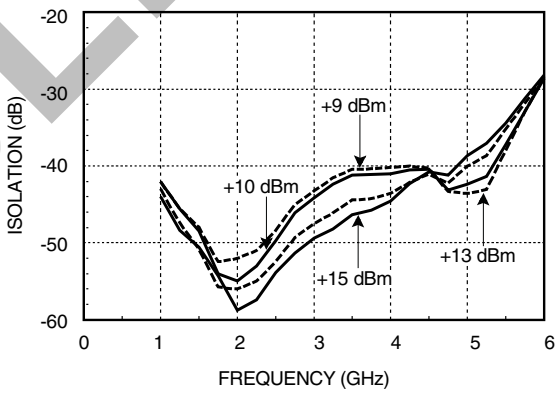
Isolation



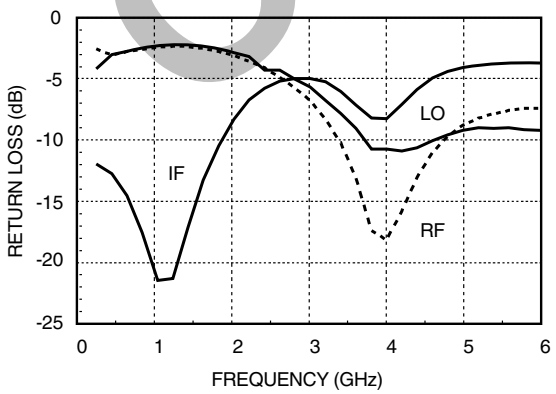
Conversion Loss vs. LO Drive



Isolation vs. LO Drive



Return Loss



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

S - Paremeters for the RF, LO, IF Ports are Available On-Line at ***www.hittite.com***

For price, delivery, and to place orders: Analog Devices, Inc., One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106
Phone: 781-329-4700 • Order online at www.analog.com
Application Support: Phone: 1-800-ANALOG-D

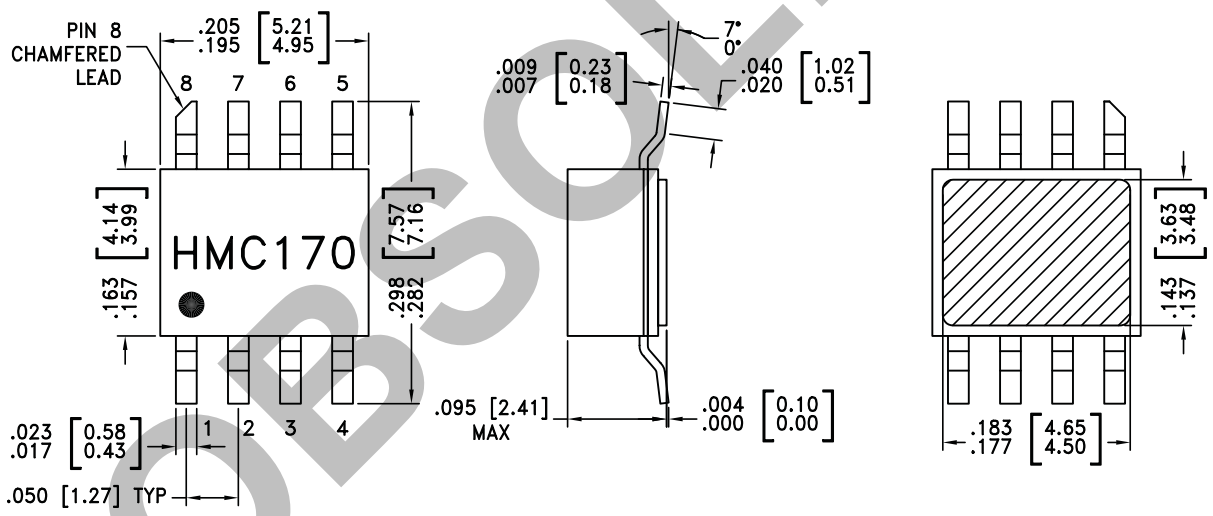
RoHS✓ EARTH FRIENDLY

Absolute Maximum Ratings

RF / IF Input	+13 dBm
LO Drive	+27 dBm
Storage Temperature	-65 to +150 °C
Operating Temperature	-55 to +85 °C

ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Outline Drawing



NOTES:

1. PACKAGE BODY MATERIAL: WHITE ALUMINA 92%
2. LEAD, PACKAGE BOTTOM MATERIAL: COPPER
3. PLATING: ELECTROLYTIC GOLD 100-200 MICROINCHES, OVER ELECTROLYTIC NICKEL 100-250 MICROINCHES.
4. DIMENSIONS ARE IN INCHES [MILLIMETERS].
5. PACKAGE LENGTH AND WIDTH DIMENSIONS DO NOT INCLUDE LID SEAL PROTRUSION .005 PER SIDE.
6. ALL GROUND LEADS AND GROUND PADDLE MUST BE SOLDERED TO PCB RF GROUND.

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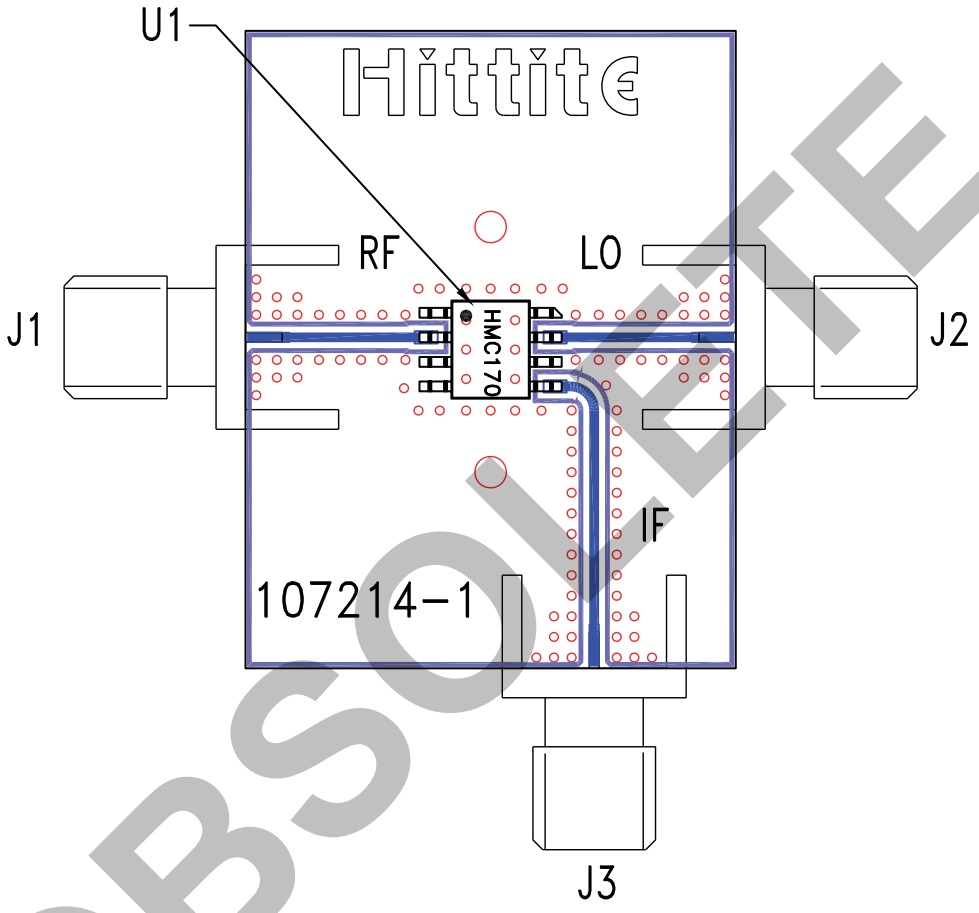
Evaluation PCB



List of Materials for Evaluation PCB 102102 [1]

Item	Description
J1 - J3	PCB Mount SMA RF Connector
U1	HMC170C8 Mixer
PCB [2]	107214 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.

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