

**HITTITE
MICROWAVE
CORPORATION**

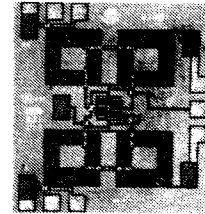
**GaAs MMIC
Double-Balanced
2 to 6 GHz Mixer**

HMC115

PRELIMINARY DATA SHEET, DECEMBER 1991

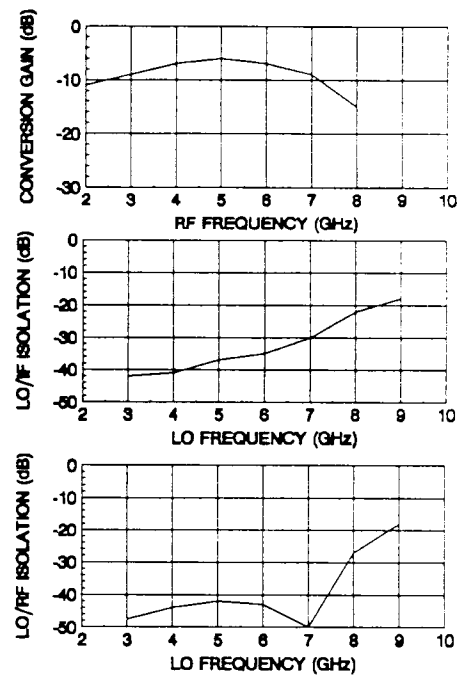
Features

CONVERSION LOSS:	8dB
LO TO RF AND IF ISOLATION:	30dB
RF AND LO BANDWIDTH:	2 -6 GHz



Typical Performance

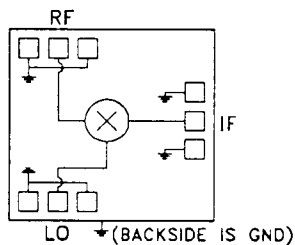
at a Fixed 1 GHz IF



General Description

The HMC115 chip is a miniature double-balanced mixer which can be used as an Up-Converter or Down-Converter operating in C-band. The chip does not require DC bias, and is available in packaged format.

Schematic



Electrical Performance

PARAMETER	Typ.	Units
Frequency Range, RF & LO	2 - 6	GHz
Frequency Range, IF	DC - 6	GHz
Conversion Loss	8	dB
Noise Figure	8	dB
LO to RF Isolation	40	dB
LO to IF Isolation	30	dB
IP ₃ (Input)	20	dBm
IP ₂ (Input)	40	dBm
1 dB Gain Compression	10	dBm
Local Oscillator Drive Level	15	dBm
Operating Temperature	-55 to +125	deg. C
Size	1.3 x 1.3	mm