

**HITTITE  
MICROWAVE  
CORPORATION**

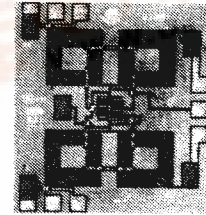
**GaAs MMIC  
Double-Balanced  
2 to 6 GHz Mixer**

**HMC115**

PRELIMINARY DATA SHEET, DECEMBER 1991

**Features**

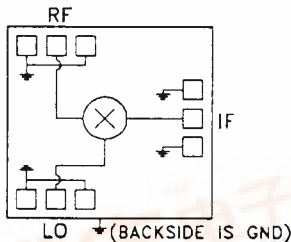
- CONVERSION LOSS: 8dB
- LO TO RF AND IF ISOLATION: 30dB
- RF AND LO BANDWIDTH: 2-6 GHz



**General Description**

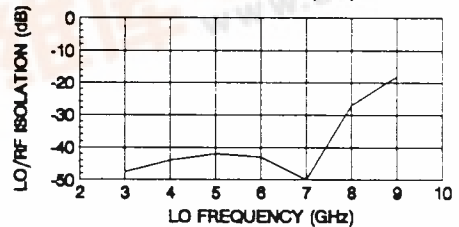
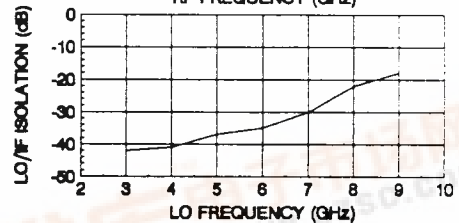
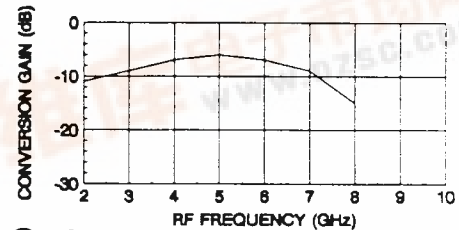
The HMC115 chip is a miniature double-balanced mixer which can be used as an Up-Converter or Down-Converter operating in C-band. The chip does not require DC bias, and is available in packaged format.

**Schematic**



**Typical Performance**

at a Fixed 1 GHz IF



**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 <sub>3</sub> (Input)	20	dBm
IP <sub>2</sub> (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

