M74/M74C

DOUBLE-BALANCED MIXER

· LO 5 TO 18 GHz
· RF 7 TO 18 GHz
· IF DC TO 3 GHz
· LO DRIVE +10 dBm (nominal)
· VERY SMALL PACKAGE

Specifications (Rev. Date: 1/02)*

Characteristics	Typical	Guaranteed	
		+25°C	-54° to +85°C
SSB Conversion Loss & SSB Noise Figure (max.)			
f_R = 7 to 16 GHz, f_L = 6 to 17 GHz, f_I = 0.03 to 1 GHz	5.5 dB	7 dB	7.5 dB
f_R = 7 to 16 GHz, f_L = 5 to 18 GHz, f_I = 0.03 to 2 GHz	6 dB	8 dB	8.5 dB
f_R = 8 to 16 GHz, f_L = 5 to 16 GHz, f_I = 0.03 to 3 GHz	6.5 dB	8.5 dB	9 dB
f_R = 16 to 18 GHz, f_L = 13 to 18 GHz, f_I = 0.03 to 3 GHz	7 dB	9 dB	9.5 dB
Isolation (min.)			
L to R			
f_L = 5 to 14 GHz	40 dB	22 dB	20 dB
f_L = 14 to 18 GHz	30 dB	10 dB	8 dB
L to I			
f_L = 8 to 18 GHz	25 dB	15 dB	13 dB
f_L = 5 to 8 GHz	25 dB	15 dB	13 dB
1 dB Conversion Compression			
f_L @ +10 dBm	+4 dBm		
Input IP3			
f_{R1} = 13 GHz @ -6 dBm f_{R2} = 13.01 GHz @ -6 dBm	+11 dBm		
f_L = 14 GHz @ 10 dBm			

Measured in a 50-ohm system with nominal LO drive and downconverter application only, unless otherwise specified. Subject to change without notice.

Absolute Maximum Ratings

Operating Temperature	-54°C to 100°C
Storage Temperature	-65°C to 100°C
Peak Input Power	23 dBm max. @ +25°, 20°C
Peak Input Current	100 mA DC

Outline Drawing(s)

Package	Figure	Model
MPAC	DH	M74
SMA	DG	M74C

Typical Performance at 25°C