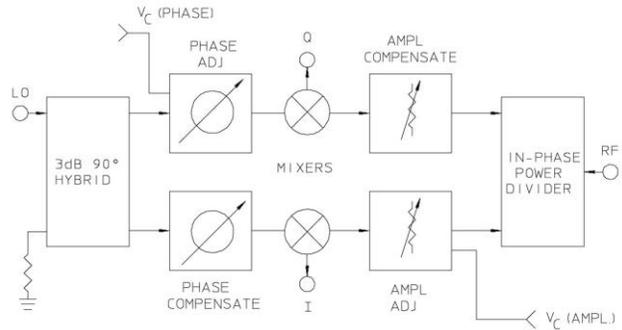


IQF-27L SERIES – I&Q NETWORKS

TECHNICAL FEATURE

FEATURES

- 2 to 200 MHz
- 10 % Bandwidth
- In-Circuit Phase and Amplitude Adjustments
- Hi-Rel Package



PRINCIPAL SPECIFICATIONS		
Model Number	LO Frequency f_0 , MHz	†Bandwidth RF Input
IQF-27L-***B	20 - 200	10% of f_0
For complete Model Number replace *** with desired LO Frequency in MHz.		

GENERAL SPECIFICATIONS	
RF and LO Input Characteristics	
Impedance:	50 Ω nom.
VSWR:	1.5:1 max.
RF Power Level:	0 dBm nom.
LO Power Level:	+10 dBm nom.
I & Q Output Characteristics	
Video Bandwidth:	DC to †50 MHz nom.
Output Impedance:	50 Ω nom.
Conversion Loss	
(RF to I or Q):	10 dB typ., 12 dB max.
IF Balance (I to Q) @ $V_c = +5V$	
Phase:	$90^\circ \pm 2^\circ$
Amplitude:	0 ± 0.2 dB
Bias Controls, @ f_0:	
Phase Tuning:	$\pm 5^\circ$ nom.
Amplitude Range:	± 1 dB nom.
Temperature Stability:	± 0.2 dB, $\pm 1^\circ$ max.
Operating Temp:	-55° to $+85^\circ C$
Weight, nominal:	0.55 oz (15.4 g)
†RF and Video Bandwidths are typically much greater than specified.	

General Notes:

1. I & Q networks are integrated devices that produce two quadrature-phased, equal amplitude signals when fed RF and LO signals.
2. The IQF-27L series features in-circuit, voltage controlled phase and amplitude balance adjustments that allow fine adjustments when the device is in its normal operating environment. These features provides accuracy not previously attainable in a comparably small package. In addition, the voltage controlled phase and amplitude balance inputs facilitate closed loop, servo operation using the adjustment inputs in the feedback loops.
3. Merrimac I & Q networks comply with the relevant sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

L - Package Outline

PIN	FUNCTION
1	Phase Adjust
2	LO Input
3	I Output
4	Amplitude Adjust
5	RF Input
6	Q Output

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Crane Aerospace & Electronics
 Microwave Solutions – Merrimac Industries
 41 Fairfield Place, West Caldwell, NJ 07006
 + 1.973.575.1300 ext. 1309 • mw@crane-eg.com
www.craneeae.com/mw



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