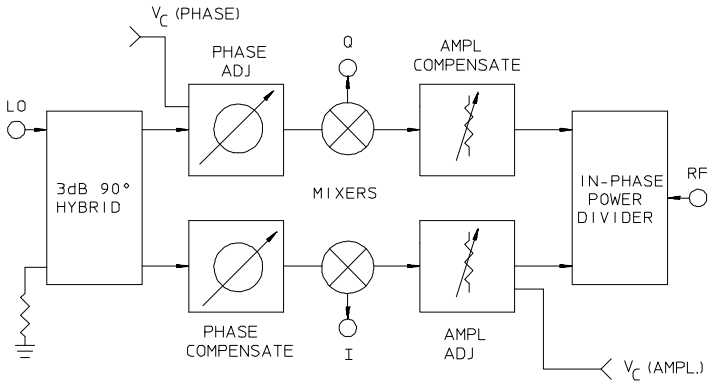
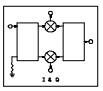
IQF-27L Series I&Q NETWORKS

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





PRINCIPAL SPECIFICATIONS

Model Number	LO Frequency f_o, MHz	†Bandwidth RF Input
IQF-27L-***B	20 - 200	10% of f_o

For complete Model Number replace *** with desired LO Frequency in MHz.

General Notes:

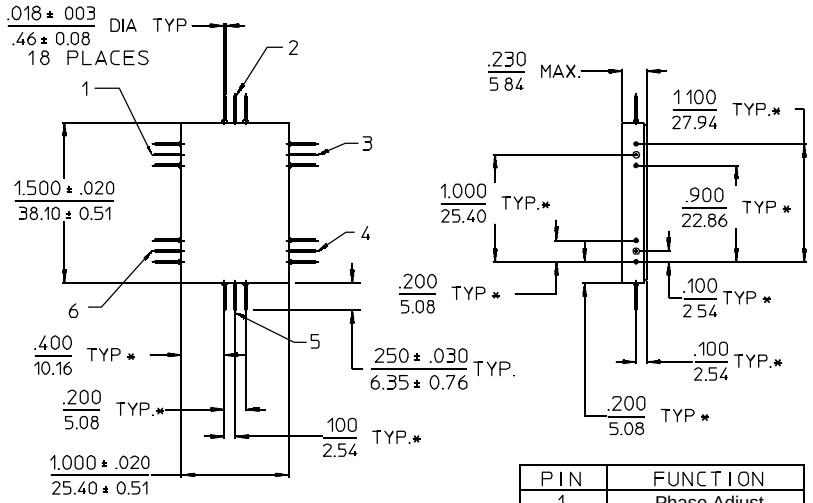
1. I & Q networks are integrated devices that produce two quadrature-phased, equal amplitude signals when fed RF and LO signals.
2. The IQF-27L series features in-circuit, voltage controlled phase *and* amplitude balance adjustments that allow fine adjustments when the device is in its normal operating 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.

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° ± 2°
Amplitude:	0 ± 0.2 dB
Bias Controls, @ f_o:	0 to +10V
Phase Tuning:	±5° nom.
Amplitude Range:	±1 dB nom.
Temperature Stability:	±0.2 dB, ±1° max.
Operating Temp:	– 55° to +85°C
Weight, nominal:	0.55 oz (15.4 g)

†RF and Video Bandwidths are typically much greater than specified.

L - Package Outline



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

NOTES:
1. Tolerance on 3 place decimals ±.010(.25) except as noted.
2. Dimensions in inches over millimeters.
3. Dimensions marked with * apply only at body.
4. All unmarked pins are case ground.

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For further information contact **MERRIMAC / 41 Fairfield Pl, West Caldwell, NJ, 07006 / 973-575-1300 / FAX 973-575-0531**