



- SPACE QUALIFIED
- 30 TO 1000 MHz
- ULTRA WIDEBAND
- HI-REL FLATPACK



SERIES 05

I & Q networks are integrated devices that produce two quadrature-phased equal amplitude signals when fed RF and LO signals. In the IQF-9L, specially designed lead/lag circuits are used to provide superior performance across very wide bandwidths as is required in spread spectrum communications systems. This has been designed, manufactured and qualified per Merrimac document CENG-0001, "Standard Design Requirements for Space Qualified Devices".

GENERAL SPECIFICATIONS								
MODEL NUMBER	LO/RF BANDWIDTH	PHASE BALANCE	AMPLITUDE BALANCE	CONVERSION LOSS		VSWR RF / LO		LO POWER LEVEL
	MHz		dB	TYP.	MAX.	TYP.	MAX.	dBm
IQF-9L-500 SQ	30 - 1000	90° ± 7°	0.75	10 dB	12 dB	1.3:1	1.7:1	+10 - 13
RF POWER LEVEL	VIDEO BANDWIDTH	INPUT INTERCEPT	IMPEDANCE	WEIGHT		OPERATING TEMPERATURE		
dBm MAX	MHz	dBm MIN.	NOM.	MAX.				
0	DC to 100	+14	50 OHM	17g		-55° to +85 ° C		

PACKAGE OUTLINE

The drawing shows a 6-pin package with the following dimensions:

- Top View:**
 - Pin 1 to Pin 6 distance: $1.500 \pm .020$ / 38.10 ± 0.51
 - Pin 1 to Pin 2 distance: $1.000 \pm .020$ / 25.40 ± 0.51
 - Pin 2 to Pin 3 distance: $.250 \pm .030$ / 6.35 ± 0.76 TYP.
 - Pin 3 to Pin 4 distance: $.200$ / 5.08 TYP.*
 - Pin 4 to Pin 5 distance: $.100$ / 2.54 TYP.*
 - Pin 5 to Pin 6 distance: $.100$ / 2.54 TYP.*
 - Pin 6 to Pin 1 distance: $.400$ / 10.16 TYP.*
 - Pin 1 to Pin 2 distance: $.200$ / 5.08 TYP.*
 - Pin 2 to Pin 3 distance: $.018 \pm .003$ / 0.46 ± 0.08 DIA. TYP. 18 PLACES
- Side View:**
 - Pin 1 to Pin 6 distance: 1.100 / 27.94 TYP.*
 - Pin 1 to Pin 2 distance: $.900$ / 22.86 TYP.*
 - Pin 2 to Pin 3 distance: $.230$ / 5.84 MAX.
 - Pin 3 to Pin 4 distance: $.200$ / 5.08 TYP.*
 - Pin 4 to Pin 5 distance: $.100$ / 2.54 TYP.*
 - Pin 5 to Pin 6 distance: $.100$ / 2.54 TYP.*

NOTES:

1. TOLERANCE ON 3 PLACE DECIMALS $\pm .010$ (.25mm) EXCEPT AS NOTED.
2. DIMENSIONS IN INCHES OVER MILLIMETERS.
3. DIMENSIONS MARKED WITH * APPLY ONLY AT BODY.

PIN	FUNCTION
1	GROUND
2	LO INPUT
3	GROUND
4	Q OUTPUT
5	RF INPUT
6	I OUTPUT