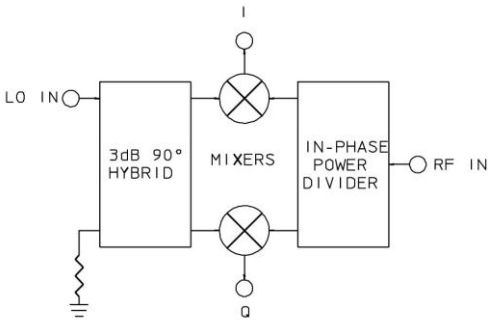
IQM-9B-500 – I&Q NETWORKS

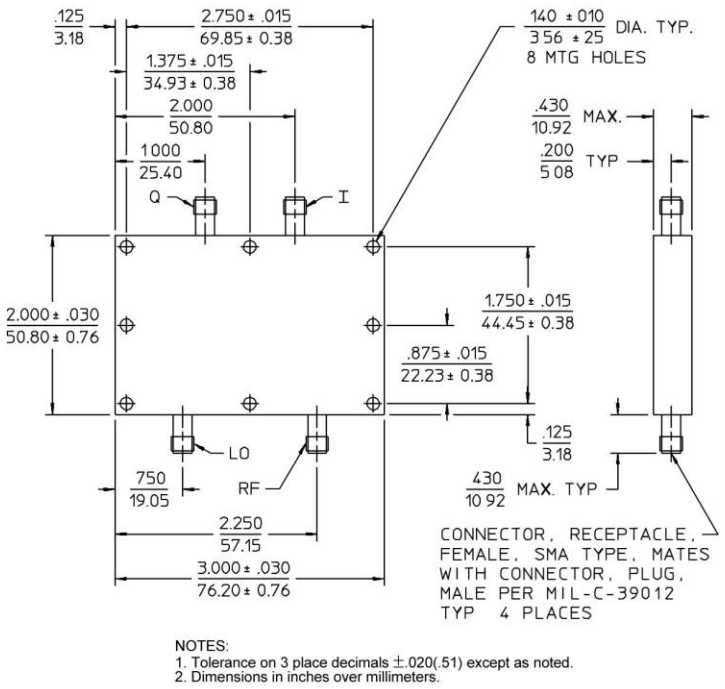
TECHNICAL FEATURE

FEATURES

- 30 to 1000 MHz
- Ultrawide Bandwidth
- Spread Spectrum Applications
- SMA Connectors



B - Package Outline



NOTES:
1. Tolerance on 3 place decimals ±.020(.51) except as noted.
2. Dimensions in inches over millimeters.

PRINCIPAL SPECIFICATIONS

Model Number	LO/RF Bandwidth	Phase Balance
IQM-9B-500	30 - 1000 MHz	90° ± 7°

GENERAL SPECIFICATIONS

RF and LO Input Characteristics

Impedance:	50 Ω nom.
VSWR:	1.3:1 typ, 1.7:1 max.
RF Power Level:	0 dBm nom.
LO Power Level:	+11.5 dBm nom.*
Isolation (L-R):	40 dB min.

I & Q Output Characteristics

Amplitude Balance:	0.75 dB
Video Bandwidth, min:	†100 MHz, nom
Two Tone, 3rd Order	
Input Intercept:	+16 dBm typ.
Output Impedance:	50 Ω nom.
Conversion Loss	
(RF to I or Q):	10 dB typ,12 dB max.
Weight, nominal:	3 oz (84 g)
Operating Temp:	– 55° to +85°C

†Video Bandwidths are typically much greater than specified.

*Higher LO Power versions available to special order.

General Notes:

1. I & Q networks are integrated networks that produce two quadrature phased, equal amplitude signals when fed RF and LO signals.

2. The IQM-9B-500 I&Q network includes specially designed lead/lag circuits to provide superior performance across extraordinarily wide bandwidths as is required in applications such as spread spectrum communications.

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.

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