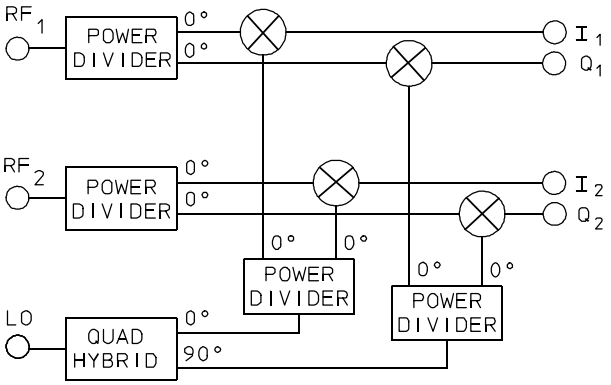
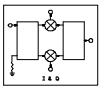
20 to 500 MHz / Two I&Q Phase Detectors with Common LO / Hermetic Package





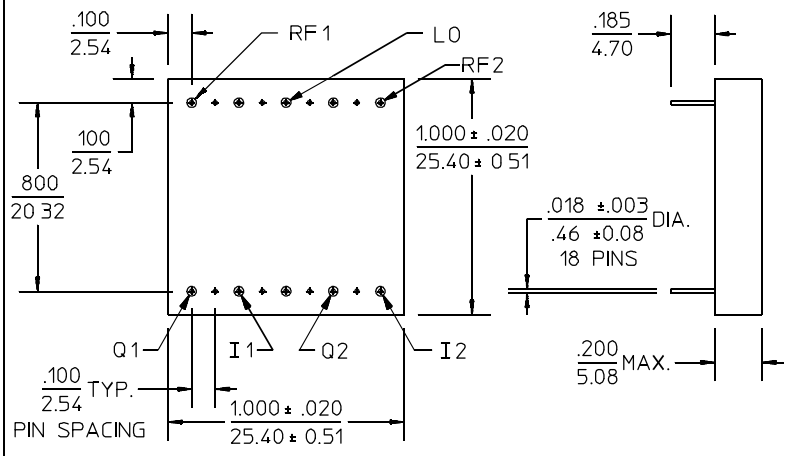
PRINCIPAL SPECIFICATIONS

Model Number	RF/LO Center Frequency, f_0	†Bandwidth MHz
IDP-2S-***B	20 to 500 MHz	10% of f_0

†RF and video bandwidths are typically much greater than specified.

*** Insert center frequency in MHz.

Meri-Pac™ S-Package Outline



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

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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	+14 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.
IF Balance	12 dB max.
Phase:	0 ± 5° max. (I_1 - I_2 or Q_1 - Q_2)
	90 ± 5° max. (I_1 - Q_1 or I_2 - Q_2)
Amplitude:	0.5 dB typ.,1 dB max.
Weight, nominal:	0.35 oz (10 g)
Operating Temp:	-- 55° to +85°C

AVAILABLE OPTIONS

Phase Balance:	90° ± 2° max.
Amplitude Balance:	0.5 dB max.
Wider Bandwidth:	Customized units

General Notes:

1. Dual I & Q networks are integrated devices that produce two pairs of quadrature-phased, equal amplitude signals when fed by two IF signals and an LO signal as shown in the schematic above.

2. Merrimac's IDP-2S series combines two matched circuits in one package. Both lumped and distributed circuit technologies are used to minimize size and weight while maintaining excellent overall performance.

3. Merrimac's I & Q networks comply with the relevant sections of MIL-M-28837 and may be screened for compliance with additional specifications for military and space applications requiring the highest reliability.

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