

TECHNICAL FEATURE

FEATURES

- 5.0 - 6.0 GHz
- High Power - 25 Watts CW
- Multiple Plating Options
- Space Qualified Version Available
- Surface Mount
- Tape & Reel Available

PRINCIPAL SPECIFICATIONS

Model Number	Frequency Range GHz	Insertion Loss dB Max.	Amplitude Balance dB Max.	Phase Balance Max.	VSWR, Max. All Ports	Isolation dB Min.	Input Power Max.
QHDZ-2Z-5.5G	5.0 - 6.0	.040	± 0.3 dB	90 ± 5°	1.4:1	15	25

GENERAL NOTES

The Multi-Mix® Zapper® QHDZ series provides a 3 dB 90° coupling with low insertion loss, low VSWR, and high isolation. Accurate phase and amplitude balance make this series ideal for use in IQ networks, power amplifiers, radio transceivers, receiver multi-couplers and RF signal distribution and processing equipment.

QHDZ quad hybrids are fusion bonded multilayer stripline devices. The fusion bonding process yields a homogeneous monolithic dielectric structure with reliability, ruggedness, and electrical performance that is superior to conventional adhesive bonding techniques.

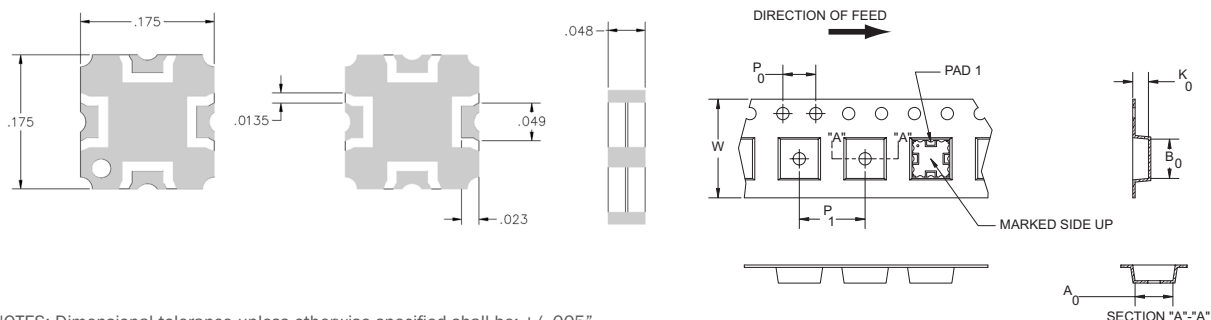
GENERAL SPECIFICATIONS

Size 0.175" x 0.175" x 0.048"
 Weight, max..... 0.002 oz. (0.057 g)
 RF Interface..... Surface Mount
 Operating Temperature..... -55° to +95° C

TRUTH TABLE

	1	2	3	4
1	Input	0°	Isolated	-90°
2	0°	Input	-90°	Isolated
3	Isolated	-90°	Input	Iso
4	-90°	Isolated	0°	Input

PACKAGE OUTLINE / TAPE & REEL ORIENTATION

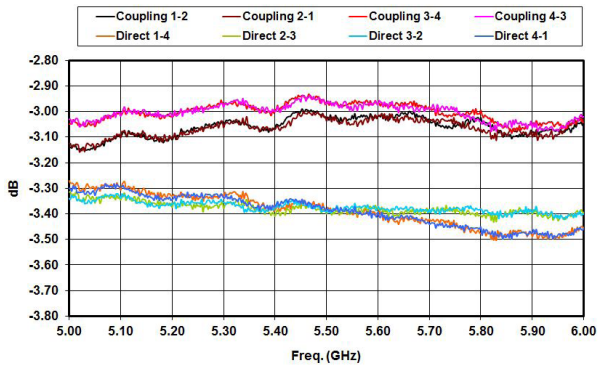


NOTES: Dimensional tolerance unless otherwise specified shall be: +/- .005"
 Thickness tolerance: +/- .005"
 Individual units will not be marked, but tape and reel packaging will include the Merrimac part # and date code. Individual units will have an index mark etched as shown on the data sheets.

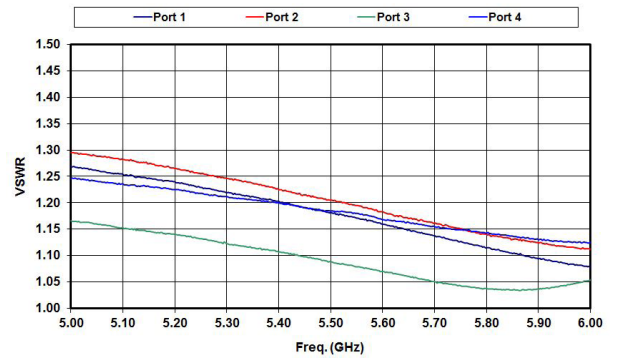
	W	P ₁	P ₀	A ₀	B ₀	K ₀
ENGLISH (in)	0.4724	0.3150	0.1575	0.197	0.189	0.071
METRIC (mm)	12.00	8.00	4.00	5.0	4.8	1.8

QUAD HYBRID - QHDZ-2Z-5.5G

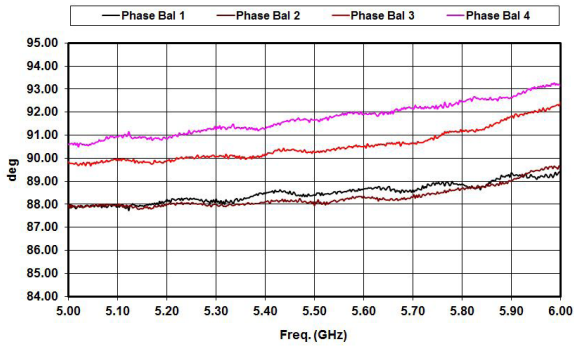
TRANSMISSION LOSS



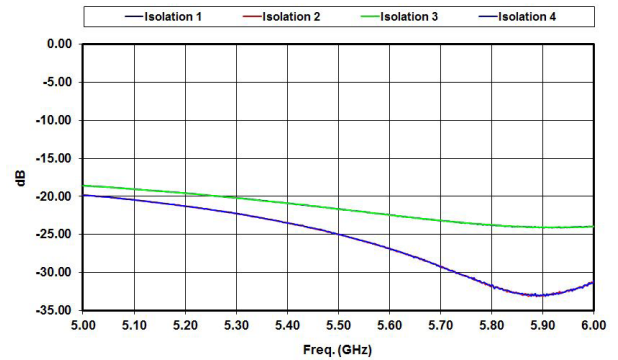
VSWR



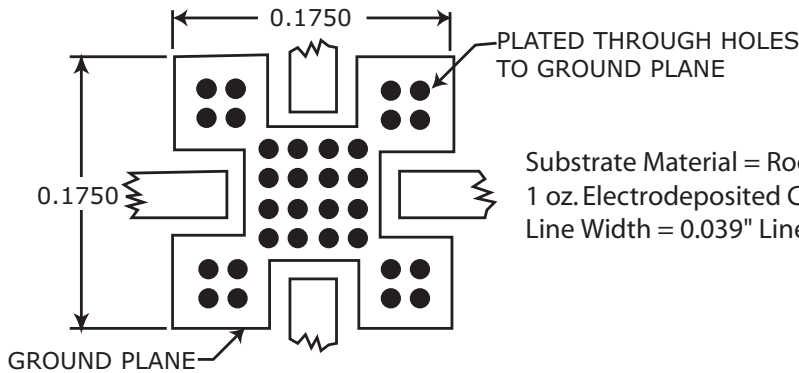
PHASE BALANCE



ISOLATION



MOUNTING GUIDELINES



Substrate Material = Rogers RO4003; 0.020" Thickness;
 1 oz. Electrodeposited Copper Feed Transmission Lines = Grounded CPW;
 Line Width = 0.039" Line-Ground Spacing = 0.015"