



CSD-20Z-2.1G DIRECTIONAL COUPLER

REV: 017, 12/02/04

TECHNICAL DESCRIPTION

MULTI-MIX PICO™ Z-SERIES DIRECTIONAL COUPLERS

- 2.0 - 2.3 GHz
- HIGH POWER...100 WATTS CW
- LOW LOSS
- LOW VSWR
- SURFACE MOUNT
- TAPE & REEL



The Multi-Mix® CSD-Z series provides directional couplers with low insertion loss, low VSWR, and high directivity. Accurate coupling factors make this series ideal for use in power amplifiers and RF signal distribution and processing.

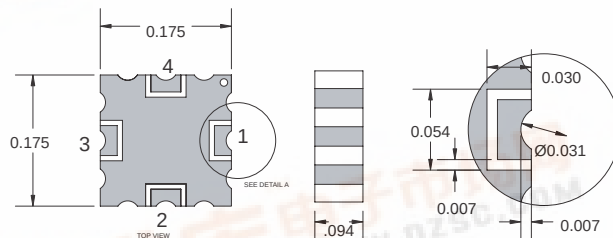
CSD-Z directional couplers are fusion bonded multilayer stripline devices. The fusion bonding process yields a homogeneous monolithic dielectric structure with reliability, ruggedness, and electrical performance that is superior to conventional adhesive bonding techniques.

GENERAL SPECIFICATIONS

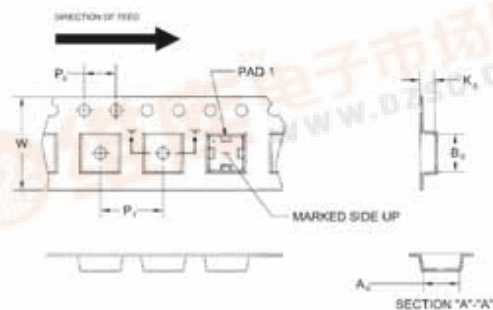
FREQUENCY RANGE (GHz)		MEAN COUPLING	INSERTION LOSS (dB MAX)	VSWR (MAX)	FREQUENCY SENSITIVITY (dB MAX)
2.0 - 2.3		19.5 ± 1.0 dB	0.30	1.30:1	±0.3
DIRECTIVITY (dB MIN.)	AVERAGE POWER* (WATTS, MAX)	SIZE (INCHES)	WEIGHT (GRAMS/OZ.)	RF INTERFACE	OPERATING TEMPERATURE
13	100 W	0.18 x 0.18 x 0.094	0.13 / 0.005	Leadless Surface Mount	-55° - +85° C

* CW input power, tested in fixture with heat sink at 25° C.

PACKAGE OUTLINE / TAPE & REEL ORIENTATION



NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
2. TOLERANCES: -3 PLACE DECIMALS; ±.005.



	W	P ₁	P ₂	A ₂	B ₂	K ₂
ENGLISH (in)	0.4724	0.3150	0.1575	0.1811	0.1882	0.0752
METRIC (mm)	12.00	8.00	4.00	4.60	4.78	1.91

THE MULTI-MIX MICROTECHNOLOGY® GROUP IS ISO 9001:2000 REGISTERED



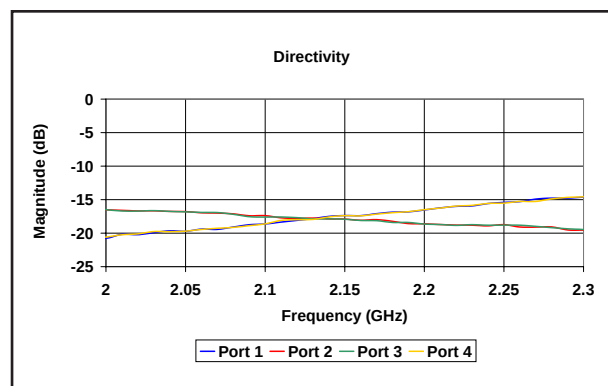
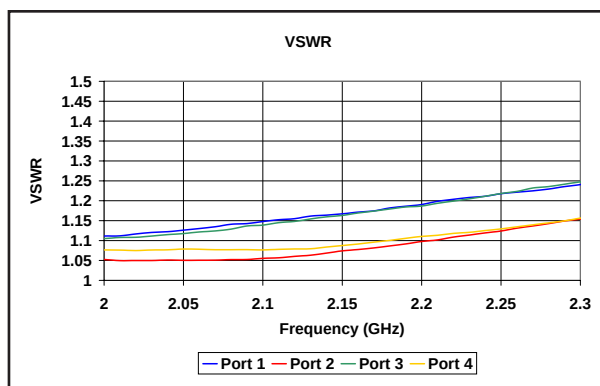
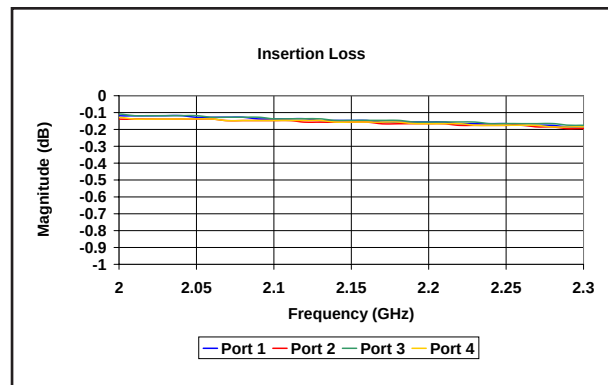
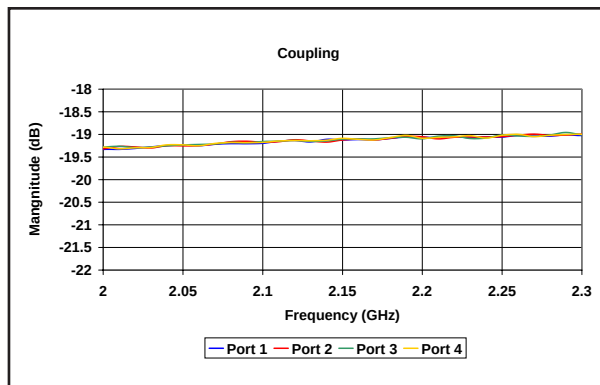
U.S. Patent 6,099,677 and other Patents Pending.

Merrimac Industries / 41 Fairfield Place, West Caldwell, NJ 07006

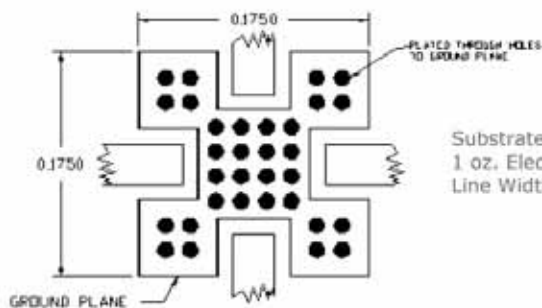
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TYPICAL PERFORMANCE



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"

TRUTH TABLE

	1	2	3	4
1	In	Coupled	Isolated	Out
2	Coupled	In	Out	Isolated
3	Isolated	Out	In	Coupled
4	Out	Isolated	Coupled	In

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