

**PRINCIPAL SPECIFICATIONS**

Model Number	Frequency Range, GHz	Coupling, <sup>a</sup> dB, Nom.	Frequency Sensitivity, dB, Max.	Directivity, dB, Min.	*Insertion Loss, dB, Max.	VSWR, Max., Main Coupled Line Line		Outline Ref. Dim.
CSD-10K-75G	0.5 - 1.0	10 ±1.0	±0.75	20	0.40	1.25:1	1.25:1	K
CSD-20K-75G		20 ±1.0	±0.75	20	0.40	1.25:1	1.25:1	K
CSD-10L-0.9G	0.8 - 1.1	10 ±1.0	±0.25	20	0.40	1.25:1	1.25:1	L
CSD-15L-0.9G		15 ±1.0	±0.25	20	0.40	1.25:1	1.25:1	L
CSD-20L-0.9G		20 ±1.0	±0.25	20	0.40	1.25:1	1.25:1	L
CSD-30L-0.9G		30 ±1.0	±0.25	20	0.40	1.25:1	1.25:1	L
CSD-10L-1.5G		10 ±1.0	±0.75	20	0.40	1.35:1	1.35:1	L
CSD-20L-1.5G	20 ±1.0	±0.75	20	0.40	1.35:1	1.35:1	L	
CSD-10L-1.9G	1.8 - 2.0	10 ±1.0	±0.50	20	0.40	1.35:1	1.35:1	L
CSD-15L-1.9G		15 ±1.0	±0.50	20	0.40	1.35:1	1.35:1	L
CSD-20L-1.9G		20 ±1.0	±0.50	20	0.40	1.35:1	1.35:1	L
CSD-30L-1.9G		30 ±1.0	±0.50	20	0.40	1.35:1	1.35:1	L
CSD-10M-3G	2.0 - 4.0	10 ±1.0	±0.75	20	0.40	1.35:1	1.35:1	M
CSD-20M-3G		20 ±1.0	±0.75	20	0.40	1.35:1	1.35:1	M

<sup>a</sup>Coupling is referenced to the input and includes frequency sensitivity

\* Insertion Loss Above Coupling Loss

**General Notes:**

1. The CSD series of Mini-Filmbrid directional couplers consists of miniature four-port devices using multi-layer, plated-through, stripline technology. Each is a quarter wave coupler designed to cover an octave band of frequencies.
2. These units are suitable for monitoring forward or reflected power with minimal perturbation to the main line signal. They are used for signal sampling, control loops and test signal injection devices in BITE.
3. Models employing similar features may be custom ordered with coupling values up to 30 dB with frequency coverage up to 5 GHz.
4. Mini-Filmbrids are designed to provide excellent service in a wide variety of applications including those involving harsh environments and where high reliability is important.

**GENERAL SPECIFICATIONS**

- Impedance: 50 Ω nom.
- CW Input: 50 W max.
- Contacts & Gnd Plane: Tin-Plate Finish
- Weight: 0.035 oz (1.0 g)
- Operating Temp: -55° to +85°C
- Other bands, outlines: Optional

MINI DIRECTIONAL

**Mini-Moc**

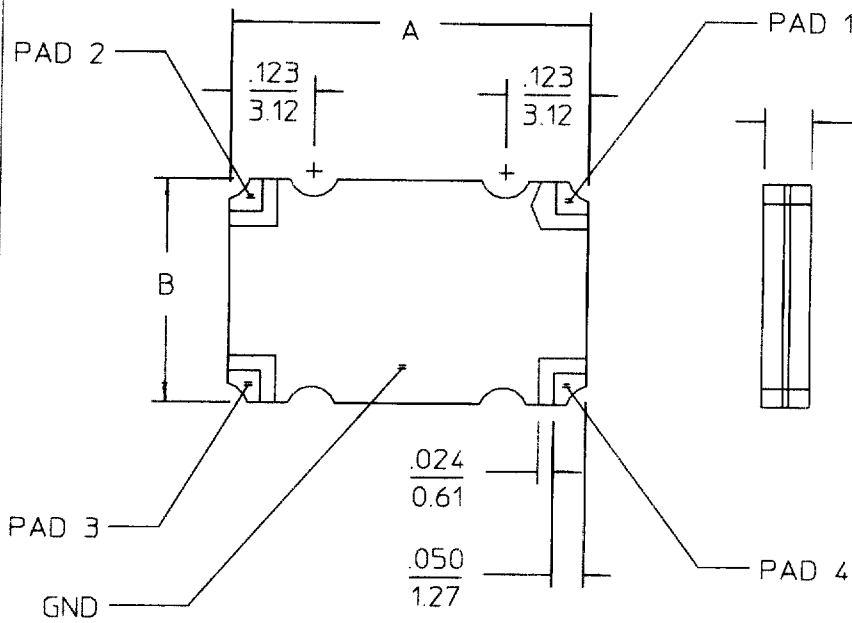
**CSD Series**

**DIRECTIONAL COUPLERS**

0.5 to 1 GHz / Narrow & Octave Band Models / 10, 15, 20 dB Coupl. / Low Cost Mini-Flanged SMB



**Package Outline**



Pad	Port Function
1	Input
2	Output
3	Reverse Coupled
4	Forward Coupled

NOTES 1. Tolerance on 3 place decimals ± 010( 25) except as noted  
2. Dimensions in inches over mm

OUTLINE	A	B
K	.750 19.05	.350 8.89
L	.560 14.22	.350 8.89
M	.450 11.43	.350 8.89