

Surface Mount Bi-Directional Coupler

High Power, 50Ω

600 to 1100 MHz

NEW!

BDCA1-6-11

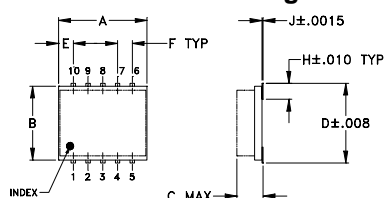
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

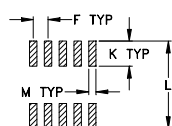
Pin Connections

INPUT	1
OUTPUT	6
COUPLED (forward)	10
COUPLED (reverse)	5
GROUND	2,3,4,7,8,9

Outline Drawing



TOLERANCES
2 PL DECIMALS ±.01
3 PL DECIMALS ±.005
UNLESS OTHERWISE SPECIFIED



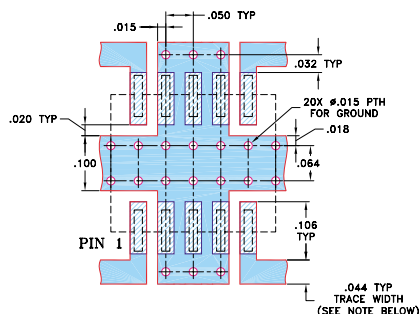
SUGGESTED LAYOUT FOR PCB LAND PATTERN

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.30	.250	.052	.274	.050	.050	.012
7.62	6.35	1.32	6.96	1.27	1.27	0.30

H	J	K	L	M	wt
.057	.004	.085	.296	.030	grams
1.45	0.10	2.16	7.52	0.76	0.25

Demo Board MCL P/N: TB-115
Suggested PCB Layout (PL-004)



NOTE: TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

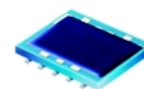
- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wideband, 600-1100 MHz
- excellent VSWR 1.1:1 typ. all ports
- solder plated leads
- excellent power handling capability, 42W (1 GHz)
- low temperature variation

Applications

- cellular
- CDMA
- ISM



BLUE CELL™

CASE STYLE: DZ944
PRICE: \$3.95 ea. QTY (10-49)

Bi-Directional Electrical Specifications

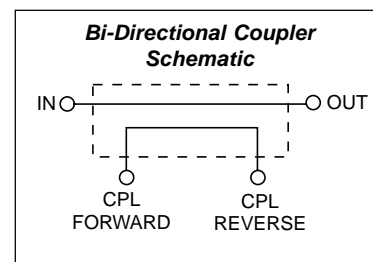
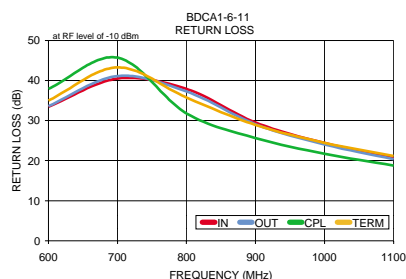
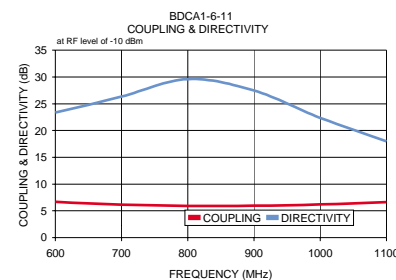
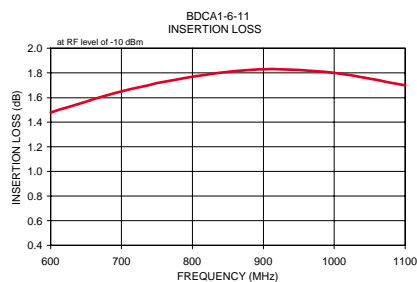
MODEL NO.	FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS* (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT** (W)
		Nom.	Max. Flatness	Typ.	Max.	Typ.	Min.		
BDCA1-6-11	600-1100								
	600-700	6.3±0.5	±0.5	1.5	1.8	23	20	1.05	50
	700-1000	6.0±0.4	±0.3	1.8	2.0	27	19	1.08	42
	1000-1100	6.3±0.5	±0.5	1.8	2.0	21	15	1.10	38

* Includes theoretical coupled power loss of 1.25 dB at 6 dB coupling.

**Derate linearly 1/3 at 100°C

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) In-Out	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-CPL	Out-Term	Out-CPL	In-Term	In	Out	CPL	Term
600.00	1.48	6.66	6.66	22.85	23.34	33.43	33.64	37.94	35.02
700.00	1.65	6.16	6.16	25.61	26.35	40.51	41.11	45.74	43.29
800.00	1.77	5.94	5.95	28.77	29.60	37.91	37.28	31.81	35.75
900.00	1.83	5.95	5.93	28.02	27.46	29.51	29.10	25.64	28.92
1000.00	1.80	6.19	6.16	23.19	22.37	24.39	24.03	21.71	24.44
1100.00	1.70	6.64	6.63	18.67	17.98	20.63	20.33	18.77	21.12



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