

Surface Mount Bi-Directional Coupler

High Power, 50Ω

1200 to 2500 MHz

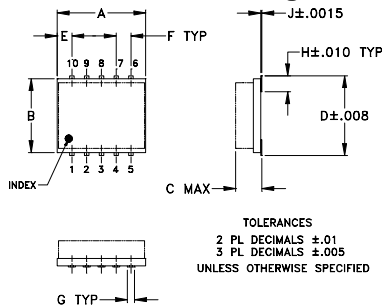
Maximum Ratings

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

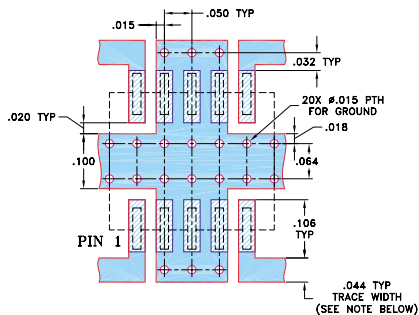


Outline Dimensions (inch)

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)



Features

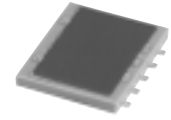
- four-port coupler
- wideband, 1200-2500 MHz
- excellent VSWR, 1.05:1 typ., all ports
- good flatness, ±0.3 dB typ.
- excellent power handling capability, 35W (2100 MHz)
- hermetically sealed
- minimal variation with temperature
- low profile, 0.052" height

Applications

- PCS, PCN, UMTS
- ISM
- GPS
- defense

NEW!

BDCA-7-25



BLUE CELL™

CASE STYLE: DZ944

PRICE: \$5.95 ea. QTY (10-49)

Bi-Directional Electrical Specifications

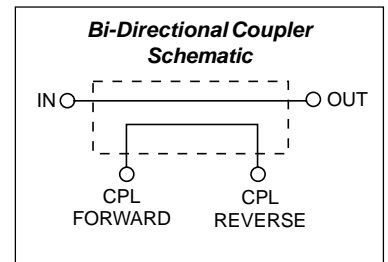
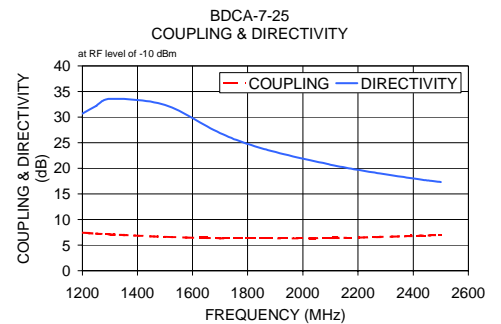
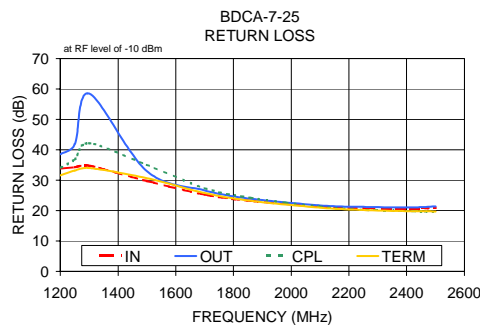
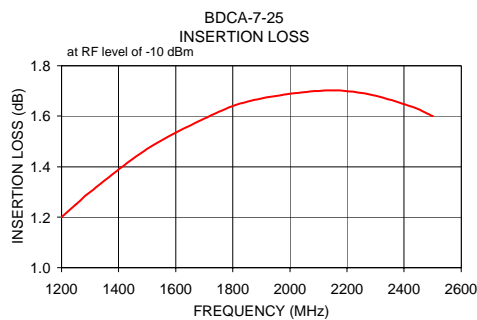
FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS* (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT** (W)
	Nom.	Max. Flatness	Typ.	Max.	Typ.	Min.	Typ.	Max.
1200-2500								
1200-1700	7.1±0.8	±0.8	1.5	1.9	22	19	1.08	35
1700-2100	6.5±0.5	±0.3	1.6	2.0	22	14	1.05	35
2100-2500	7.0±0.8	±1.0	1.5	2.0	22	12	1.10	27

* Includes theoretical coupled power loss of 1.0 dB at 7 dB coupling.

** Derate linearly to 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
1200.00	1.20	7.44	7.44	28.71	30.67	33.76	38.52	34.05	31.62
1250.00	1.25	7.25	7.26	28.83	32.19	34.26	41.86	36.87	33.16
1300.00	1.30	7.10	7.09	28.92	33.55	34.75	58.50	42.17	34.02
1500.00	1.47	6.62	6.62	26.70	32.36	29.75	32.95	35.05	30.66
1700.00	1.59	6.36	6.37	23.78	26.87	25.23	26.63	27.37	25.76
1860.00	1.66	6.30	6.30	21.94	23.76	23.19	23.89	24.17	23.22
2100.00	1.70	6.39	6.38	19.67	20.71	21.34	21.69	21.28	20.95
2260.00	1.69	6.57	6.56	18.53	19.15	20.76	21.18	20.21	20.12
2420.00	1.64	6.84	6.84	17.58	17.85	20.67	21.04	19.83	19.80
2500.00	1.60	7.01	7.00	17.10	17.32	20.88	21.37	19.63	19.70



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