

Surface Mount

Bi-Directional Coupler

NEW!

BDCA1-10-40

High Power, 50Ω

1600 to 4000 MHz

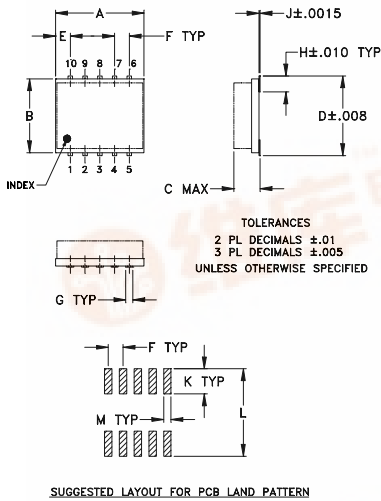
Maximum Ratings

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

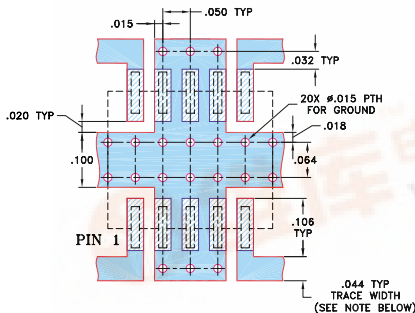


Outline Dimensions (inch)

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)

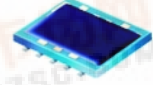


Features

- four-port
- wideband, 1600-4000 MHz
- excellent VSWR 1.2:1 typ. all ports
- good flatness, ±0.5
- excellent power handling capability
- hermetically sealed
- minimal variation with temperature

Applications

- mobile satellite
- wireless communication
- ISM, PCS



BLUE CELL™

CASE STYLE: DZ944
 PRICE: \$5.95 ea. QTY (10-49)

Bi-Directional Electrical Specifications

MODEL NO.	FREQ. RANGE (MHz) f _L -f _U	COUPLING (dB)		MAINLINE LOSS* (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT** (W)
		Nom.	Max. Flatness	Typ.	Max.	Typ.	Min.		
BDCA1-10-40	1600-4000								
	1600-1800	10.1±0.7	±0.7	0.8	1.1	21	18	1.1	24
	1800-2200	9.5±0.7	±0.8	1.0	1.3	20	17	1.1	20
	2200-2900	9.1±0.5	±0.5	1.05	1.4	20	16	1.2	16
	2900-3500	9.6±0.9	±1.0	1.15	1.4	22	16	1.2	14
3500-4000	10.8±1.0	±1.5	1.05	1.4	18	11	1.25	12	

* Includes theoretical coupled power loss of 0.46dB at 10 dB coupling.
 **Derate linearly to 1/3 at 100°C

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-CPL	Out-Term	Out-CPL	In-Term	In	Out	CPL	Term
1600.00	0.73	10.38	10.35	22.15	22.21	30.29	35.96	24.62	25.69
1800.00	0.82	9.83	9.82	21.29	21.91	29.24	37.69	28.63	33.72
2000.00	0.90	9.45	9.44	20.61	21.43	26.20	28.78	29.26	36.30
2200.00	0.97	9.22	9.21	20.25	21.19	23.61	24.59	26.38	28.57
2500.00	1.04	9.06	9.09	20.09	21.66	22.81	22.48	22.34	22.52
2900.00	1.09	9.23	9.17	21.21	25.85	24.12	23.79	21.32	21.84
3200.00	1.08	9.47	9.53	22.68	33.09	29.13	30.80	24.69	24.37
3500.00	1.06	10.01	10.17	24.81	27.65	36.17	32.26	28.32	28.37
3800.00	1.01	10.82	10.91	22.98	20.42	33.18	28.51	33.41	33.47
4000.00	0.97	11.51	11.60	20.98	17.71	31.77	26.97	27.56	32.91

