

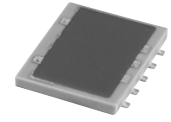
Surface Mount Bi-Directional Coupler

High Power, 50Ω

800 to 2500 MHz

NEW!

BDCA-15-25



BLUE CELL™

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

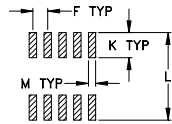
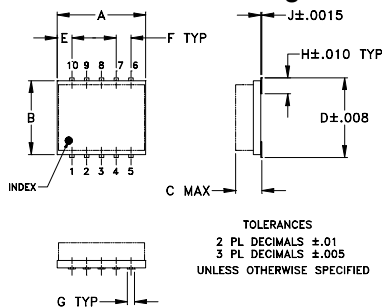
Maximum Ratings

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



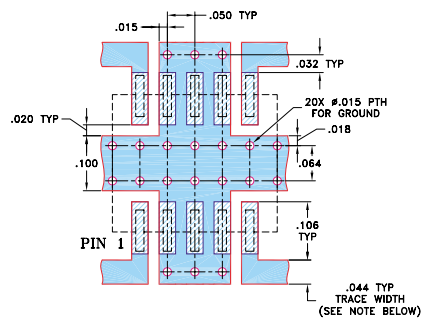
SUGGESTED LAYOUT FOR PCB LAND PATTERN

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, 800-2500 MHz
- excellent VSWR, 1.15:1 typ. all ports
- minimal variation with temperature
- low profile, 0.07" height

Applications

- cellular, PCA, PCN, UMTS
- ISM
- GPS

Bi-Directional Electrical Specifications

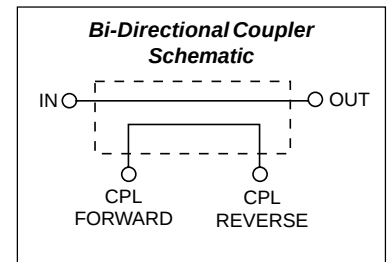
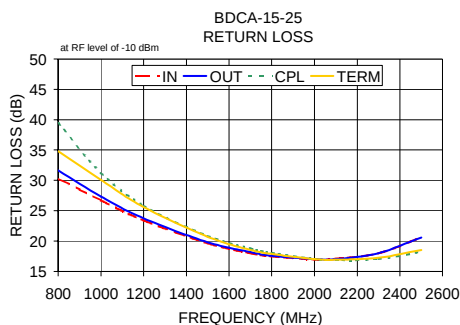
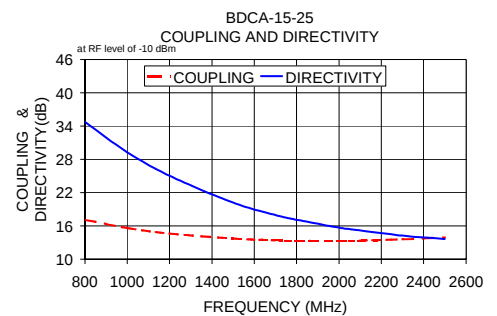
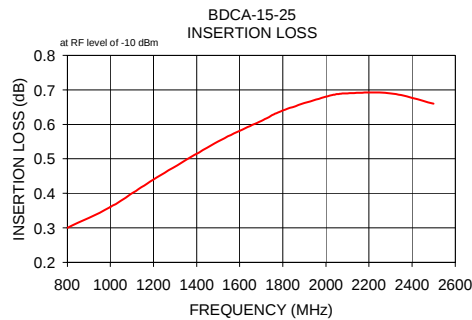
MODEL NO.	FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS* (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT** (W)
		Nom.	Max. Flatness	Typ.	Max.	Typ.	Min.		
BDCA-15-25	800-2500	15±1.7	±2.4	0.5	1.0	27	11	1.20	23
	800-1000	16.3±0.8	±1.1	0.35	0.6	27	19	1.15	40
	1800-2000	13.5±0.5	±0.3	0.55	1.0	17	12	1.35	28

* Includes theoretical coupled power loss of 0.14 dB at 15 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
800.00	0.30	17.09	17.11	35.62	34.78	30.30	31.64	39.42	34.79
1000.00	0.36	15.63	15.63	27.89	29.29	26.70	27.33	31.23	30.07
1200.00	0.44	14.61	14.61	23.87	25.04	23.41	23.75	25.82	25.60
1500.00	0.55	13.70	13.71	19.67	20.19	19.65	19.81	20.85	20.70
1700.00	0.61	13.41	13.41	17.68	17.96	18.00	18.18	18.76	18.55
1800.00	0.64	13.34	13.34	16.92	17.12	17.50	17.57	18.05	17.88
2000.00	0.68	13.33	13.33	15.78	15.69	16.97	17.04	17.05	17.04
2100.00	0.69	13.39	13.37	15.31	15.19	17.07	17.02	16.88	16.93
2300.00	0.69	13.59	13.57	14.62	14.25	17.99	18.01	17.04	17.24
2500.00	0.66	13.96	13.93	14.06	13.64	20.62	20.58	18.22	18.53



Mini-Circuits®

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

INTERNET <http://www.minicircuits.com>

REV. C
M94608
ED-9168D/1
BDCA-15-25
LC/TD/CP/AM
040930