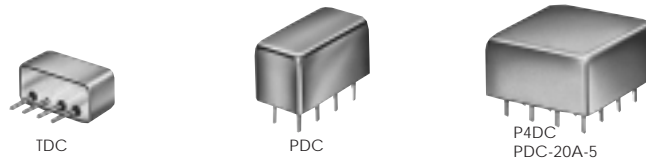


DIRECTIONAL COUPLERS 50 & 75Ω

Plug-In

6 to 30 dB COUPLING up to 10W 5 kHz to 2000 MHz



MODEL NO.	FREQ. RANGE MHz	COUPLING dB		MAINLINE LOSS dB						DIRECTIVITY dB			VSWR (:1)	POWER INPUT, W		CASE STYLE	CONNECTION	PRICE \$			
				L		M ^o		U		L		M ^o		U					L	MU	
	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.		Max.			Note B
TDC-6-1	10-400	6.3±0.4	±0.4	2.0	2.4	2.0	2.4	2.0	2.5	36	30	30	25	20	15	1.5	1.0	2.0	B02	cw	23.95
TDC-10-1	1-400	10.0±0.5	±0.5	1.2	1.5	1.0	1.3	1.2	1.5	35	25	30	20	20	15	1.5	1.0	2.0	B02	cw	17.95
TDC-10-2	5-1000	11.0±0.5	±0.6	1.4	1.8	1.5	1.8	1.6	2.0	50	35	25	20	20	15	1.5	0.5	0.5	B02	cw	25.95
PDC-10-1	0.5-500	11.5±0.5	±0.6	0.85	1.3	0.65	1.0	0.85	1.3	32	25	32	25	22	15	1.2	1.5	3.0	A01	cu	13.45
PDC-10-2	250-1000	10.5±0.5	±0.6	1.4	1.6	—	—	1.6	2.0	30	23	—	—	25	15	1.5	—	5.0	A01	cu	34.45
PDC-10-5	1-2000	10.5±0.5	±1.0	1.2	1.9	1.3	1.9	2.0	2.5	38	25	30	18	22	15	1.3	0.5	0.5	A01	cu	40.95
PDC-10-6	0.005-20	11.0±0.5	±0.5	0.4	1.2	0.4	0.8	0.4	1.0	40	30	40	30	35	25	1.3	1.5	3.0	A01	cu	23.95
PDC-10-21**	1-1000	11.0±0.5	±0.5	1.2	1.7	1.2	1.7	1.6	2	40	30	25	20	25	20	1.3	1.0	2.0	A01	cu	32.95
PDC-10-22	5-750	11.0±0.5	±0.5	1.1	1.6	1.2	1.7	1.6	1.9	35	30	25	20	25	20	1.25	1.0	2.0	A01	cu	23.95
PDC-10-54	10-1500	10.5±0.5	±0.7	1.2	1.8	1.3	1.9	1.6	2.3	35	25	28	23	28	23	1.3	0.5	0.5	A01	cu	35.95
PDC-15-6	0.01-35	15.0±0.5	±0.5	0.3	0.6	0.2	0.4	0.3	0.6	38	30	35	25	28	20	1.15	2.0	4.0	A01	cu	23.95
PDC-15-21	1-500	14.7±0.5	±0.6	0.7	1.1	0.7	1.1	0.8	1.2	35	30	35	30	30	23	1.4	1.0	2.0	A01	cu	23.95
PDC-20-1*	25-400	21.0±0.75	±0.5	0.2	0.25	0.3	0.35	0.35	0.5	25	20	35	25	25	20	1.25	3.0	5.0	A01	cu	23.95
PDC-20-1W	10-700	19.2±0.5	±0.5	0.25	0.5	0.4	0.7	0.7	1.1	34	30	27	23	23	20	1.4	1.0	2.0	A01	cu	23.95
PDC-20-3	0.2-250	19.5±0.5	±0.5	0.35	0.6	0.25	0.5	0.35	0.6	36	30	33	25	25	20	1.2	1.5	4.0	A01	cu	15.95
PDC-20A-5	0.1-2000	20.0±0.5	±1.0	0.6	1.5	0.6	1.5	1.9	2.9	34	20	25	15	20	10	1.5	0.5	2.0	C145	cy	44.95
PDC-10-1-75	1-250	10.5±0.5	±0.75	1.1	1.5	1.1	1.5	1.1	1.5	30	20	30	20	30	20	2.0	2.0	4.0	A01	cu	14.95
PDC-10-6-75	0.2-100	10.0±0.5	±0.2	1.2	1.6	0.9	1.2	0.9	1.3	50	30	40	25	37	25	1.5	1.0	2.0	A01	cu	23.95
PDC-15-6-75	0.02-35	14.5±0.5	±0.5	0.3	0.7	0.3	0.7	0.3	0.7	35	20	35	20	35	20	1.3	1.5	4.0	A01	cu	25.95
PDC-20-3-75	1-150	19.5±0.5	±0.75	0.35	0.8	0.35	0.8	0.35	0.8	25	20	25	20	25	20	2.0	2.0	4.0	A01	cu	14.95
PDC-20-6-75	0.05-40	20.4±0.3	±0.25	0.1	0.25	0.1	0.2	0.1	0.3	45	35	35	20	25	18	1.2	1.5	3.0	A01	cu	23.95
P4DC-30A-2	5-1000	30.5±0.5	±1.0	0.7	1.2	0.7	1.2	0.8	1.5	30	15	32	20	20	10	1.15	1.0	2.0	C07	da	34.95
PDC20-400HP†	40-400	21.5±0.5	±0.6	0.1	0.3	0.2	0.4	0.2	0.5	30	20	30	20	27	18	1.1	10.0	10.0	A01	gh	49.95
PDC20-900HP	800-900	20.2±0.6	±0.5			0.25	0.5					24	20			1.1	5.0	5.0	A01	cu	39.95
PDC20-970HP	860-970	20.2±0.6	±0.5			0.25	0.5					24	20			1.1	5.0	5.0	A01	cu	39.95

L = low range [f_L to $10f_L$] M = mid range [$10f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

NOTES:

- ◆ Aqueous washable, hermetically sealed.
- Non-hermetic
- * L = 25-50 MHz, M = 50-300 MHz, U = 300-400 MHz
- ** Upper range coupling ±0.75 dB
- † L = 30-100 MHz, M = 100-200 MHz, Operating Temperature +50°C
- ‡ L = 40-100 MHz, M = 100-200 MHz
- ❖ L = f_L - $2f_L$
- * 4-coupled ports, Isolation between coupled ports, 25 dB minimum.
- ⊛ Insertion loss specification in L range may degrade up to 1dB at cold temperature, -55°C
- ⊙ When only specification for M or MU range given, specification applies to entire frequency range.
- ▲ Available only with SMA connectors
- Denotes 75 Ohm models
- A. General Quality Control Procedures, Environmental Specifications, Hi-Rel and MIL description are given in General Information (Section 0).
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case styles & Outline Drawings".
- C. Prices and specifications subject to change without notice.
- 1. Mainline Loss includes theoretical power loss at coupled port.
- 2. For PDC-HP models, external heat sinking is recommended to reduce case temperature.

NSN GUIDE

MCL NO.	NSN	MIL-C 15370/18*
PDC-10-1	5985-01-178-4406	002
PDC-10-1-75	5985-01-294-3796	
PDC-10-2		008
PDC-10-5	5895-01-389-9497	
PDC-10-21	5985-01-130-0177	003
PDC-10-22	5985-01-190-7738	
PDC-10-54	5895-01-394-6080	
PDC-15-6	5985-01-147-0160	009
PDC-20-3	5985-01-076-8477	001
TDC-10-1	5905-01-226-3428	

* units are not OPL listed.



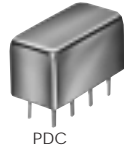
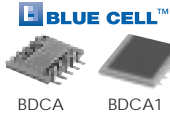
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ISO 9001 CERTIFIED

030715

Surface Mount [□], Plug-In, Coaxial

Bi-DIRECTIONAL up to 50W 100 KHz to 3000 MHz



MODEL NO.	FREQ. RANGE MHz	COUPLING dB		MAINLINE LOSS dB			DIRECTIVITY dB			VSWR (:1)	POWER INPUT, W		CASE STYLE	CONNECTION	PCB Lay-out	PRICE \$						
		Nom.	Flatness	L	M ^o	U	L	M ^o	U		L	MU										
	f _L -f _U				Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Note B	PL-	Qty. (10-49)					
◆ BDCA-10-25	800-2500	10.1±2.0	±2.0		1.0	1.5		25	11		1.05	— 24	SM1L	nl	004	5.95						
	800-1000	11.0±0.8	±1.2		0.6	1.0		32	20		1.05	— 50										
	1700-2000	8.5±0.5	±0.6		1.1	1.5		23	16		1.05	— 34										
	1000-2500	9.4±1.2	±1.5		1.0	1.5		22	11		1.05	— 24										
◆ BDCA-15-25	800-2500	15.0±1.7	±2.4		0.5	0.9		21	15		1.20	— 23	SM1L	nl	004	5.95						
	800-1000	16.3±0.8	±0.9		0.35	0.6		22	17		1.15	— 40										
	1800-2000	13.7±0.3	±0.3		0.55	0.8		19	16		1.15	— 28										
◆ BDCA-16-30	1800-3000	16.0±0.5	±0.8		0.5	0.9		23	15		1.18	— 30	SM1L	nl	004	5.95						
	1800-2500	16.0±0.5	±0.8		0.4	0.7		22	17		1.18	— 30										
◆ BDCA-22-16	800-1600	22.1±2.0	±1.2		0.4	0.7		23	11		1.15	— 35	SM1L	nl	004	5.95						
	800-1000	22.7±0.8	±0.8		0.3	0.6		24	14		1.15	— 42										
	1100-1600	21.0±0.7	±0.5		0.4	0.7		22	11		1.15	— 35										
◆ BDCA1-6-11	600-1100												DZ944	nl	004	3.95						
	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										
◆ BDCA1-6-22	950-2200												DZ944	nl	004	3.95						
	950-1400	6.9±1.0	±1.0		1.4	1.9		23	17		1.2	— 57										
	1400-1900	6.0±0.5	±0.3		1.7	2.1		28	20		1.1	— 44										
	1900-2200	6.5±0.7	±0.7		1.7	2.1		22	15		1.15	— 37										
◆ BDCA1-7-33	1600-3300												DZ944	nl	004	3.95						
	1600-2200	7.0±0.6	±0.8		1.6	1.9		27	22		1.1	— 32										
	2200-2700	6.5±0.5	±0.3		1.6	1.9		23	18		1.15	— 32										
	2700-3300	7.1±0.6	±0.9		1.6	1.9		21	17		1.15	— 24										
PDC-10-1BD	1-400	11.5±0.5	±0.5	0.6	0.9	0.8	1.1	0.9	1.3	55	35	35	20	22	15	1.2	2	4	A01	cv	—	11.45
PDC-20-1BD	0.5-200	19.2±0.5	±0.5	0.3	0.7	0.3	0.5	0.4	0.6	40	30	35	20	22	18	1.1	3	5	A01	cv	—	16.95
PDC-20-3BD	0.2-250	19.5±0.5	±0.5	0.3	1.0	0.25	0.9	0.35	0.7	47	25	40	25	30	20	1.1	1.5	4	A01	cv	—	17.95
ZABDC10-25HP	1500-2500	10.0±1.0	±0.5		0.55	0.9		26	18		1.1	10 10	DD477	jp	—	89.95						
ZABDC20-2400	1500-2400	19.5±1.0	±1.0		0.3	0.5		25	18		1.2	10 10	DD477	jp	—	89.95						
ZFDC-20-1H [†]	30-400	20.5±0.5	±0.4	0.15	0.4	0.15	0.4	0.3	0.4	30	25	30	25	30	23	1.2	25	25	J17	de	—	58.95
▲ ZFBDC20-900HP	800-900	20.7±0.6	±0.6		0.1	0.4		28	20		1.1	10 10	J17	gj	—	79.95						
▲ ZFBDC20-970HP	860-970	20.4±0.6	±0.6		0.1	0.4		28	20		1.1	10 10	J17	gj	—	79.95						

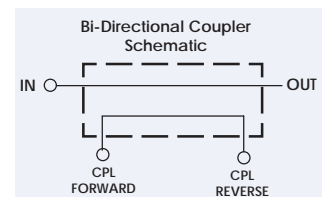
* For BDCA/BDCA1 models, derate linearly to 1/3 max. input power at 100°C

L = low range [f_L to $10f_L$] M = mid range [$10f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

pin and coax connections see case style outline drawing

Port	cu	cv	cw	cy	da	de	gh	gj	jp	nl
Input	1	1	1	14	8	S	1	2	1	1
Output	4	4	2	8	12	1	2	3	4	6
Coupled (forward)	3	3	4	5	2,1,13,14*	3	5	1	2	10
Coupled (reverse)	—	6	—	—	—	2	—	S	3	5
Not Used	6	—	—	—	—	—	—	—	—	—
Case GND	2,5,7,8	2,5,7,8	3	All other pins	All other pins	—	3,4,6,7,8	—	—	2,3,4,7,8,9
DEMO BOARD	—	—	—	—	—	—	—	—	—	TB-115

* 4-coupled ports #1, #2, #3, #4 consecutively



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