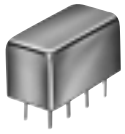
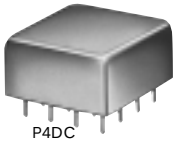
DIRECTIONAL COUPLERS 50 & 75Ω Plug-In

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


TDC


PDC


P4DC
PDC-20A-5

MODEL NO.	FREQ. RANGE MHz	COUPLING dB		MAINLINE LOSS[1] dB						DIRECTIVITY dB						VSWR (:1)	POWER INPUT, W		CASE STYLE	CONNECTION	PRICE $
				L		M°		U		L		M°		U							
	f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	L Max.	MU Max.	Note B		Qty. (1-9)
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 [$10\ f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

NOTES:

* L = 25-50 MHz, M = 50-300 MHz, U = 300-400 MHz
** Upper range coupling ±0.75 dB
‡ 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.
■ 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
TCD-6-1	5985-01-457-7382	
TDC-10-1	5985-01-226-3428	

* units are not QPL listed.

040623

pin and coax connections

see case style outline drawing

Port	cu	cw	cy	da	gh
Input	1	1	14	8	1
Output	4	2	8	12	2
Coupled (forward)	3	4	5	2,1,13,14*	5
Coupled (reverse)	—	—	—	—	—
Not Used	6	—	—	—	—
Case GND	2,5,7,8	3	All other pins	All other pins	3,4,6,7,8
DEMO BOARD	—	—	—	—	—

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