DIRECTIONAL COUPLERS 50 & 75Ω Surface Mount

6 to 20 dB COUPLING 2 MHz to 2600 MHz

ADC

D

	MODEL◆ NO.	FREQ. RANGE MHz f_L-f_U	COUPLING dB Nom.	COUPLING dB Flatness	MAINLINE LOSS dB L Typ.	MAINLINE LOSS dB L Max.	MAINLINE LOSS dB M✪ Typ.	MAINLINE LOSS dB M✪ Max.	MAINLINE LOSS dB U Typ.	MAINLINE LOSS dB U Max.	DIRECTIVITY dB L Typ.	DIRECTIVITY dB L Min.	DIRECTIVITY dB M✪ Typ.	DIRECTIVITY dB M✪ Min.	DIRECTIVITY dB U Typ.	DIRECTIVITY dB U Min.	VSWR (:1) Typ.	POWER INPUT, W L Max.	POWER INPUT, W MU Max.	CASE STYLE Note B	CONNECTION	PRICE $ Qty. (10-49)
	ADC-6-1R*	5-200	6.2±0.3	±0.3	1.6	2.0	1.7	2.0	1.7	2.1	35	22	25	18	17	13	1.33	.5	.5	CD542	hz	7.95
	ADC-10-1R*	5-900	10.5±0.5	±0.5	0.7	1.2	0.8	1.2	0.9	1.5	40	25	30	20	18	12	1.3	1	1	CD542	hz	7.95
■	ADC-6-10-75*	20-1000	6.6±0.5	±0.5	2.1	2.8	2.1	2.5	2.2	2.8	15	12	15	12	15	9	1.3	.5	.5	CD542	kd	6.95
NEW	ADC-6-13*	200-1300	6.3±0.5	±0.9			1.8	2.5					17	10			1.3	.5	.5	CD542	lt	6.95
■	ADC-8-4-75*	5-1000	7.9±0.5	±0.5	1.55	2.6	1.6	2.2	2.0	2.7	18	14	17	14	16	10	1.2	1	1	CD542	kd	6.95
	ADC-10-4*	5-1000	10.5±0.5	±1.0	0.8	1.3	0.8	1.2	1.0	1.5	40	23	40	20	25	13	1.2	1	1	CD542	kd	6.95
■	ADC-10-4-75*	5-1000	10.5±0.5	±0.5	0.85	1.4	0.9	1.4	1.0	1.4	40	20	18	12	12	8	1.2	1	1	CD542	kd	6.95
■	ADC-12-4-75*	20-1000	12.6±0.5	±0.5	0.8	1.2	0.9	1.3	1.2	1.8	28	20	23	15	17	10	1.2	1	1	CD542	kd	6.95
	ADC-15-4*	5-1000	15.5±0.5	±0.5	0.6	1.0	0.6	1.0	0.8	1.2	23	20	24	20	28	17	1.2	1	1	CD542	kd	6.95
■	ADC-15-4-75*	5-1000	15.5±0.5	±0.5	0.7	1.2	0.7	1.0	0.8	1.2	23	18	20	14	16	11	1.2	1	1	CD542	kd	6.95
■	ADC-16-4-75*	5-1000	16.2±0.5	±0.5	0.7	1.2	0.7	1.0	0.8	1.2	38	25	30	16	18	12	1.15	.5	1	CD542	kd	6.95
■	ADC-18-4-75*	20-1000	17.4±0.5	±0.5	0.4	0.8	0.4	1.0	0.5	1.2	17	14	18	14	17	12	1.15	1	1	CD542	kd	6.95
	ADC-20-4*	5-1000	20.0±0.5	±0.8	0.4	0.8	0.5	1.0	0.7	1.3	20	18	21	17	21	15	1.1	1	1	CD542	kd	6.95
■	ADC-20-4-75*	5-1000	19.7±0.5	±0.5	0.5	0.8	0.5	1.0	0.6	1.2	22	18	23	15	20	13	1.15	1	1	CD542	kd	6.95
	ADC-20-12*	100-1200	20±0.75	±0.7			0.5	1.1					26	13			1.17	1	1	CD542	kd	6.95
	D20C	810-960	19.2±1.6	—			0.3	0.5					15	7			1.1	1	1	CA531	jn	0.99
	D19G	1420-1660	18.2±1.2	—			0.3	0.5					15	10			1.2	1	1	CA531	jn	0.99
	D18P	1710-1990	18.0±1.8	—			0.3	0.5					15	10			1.2	1	1	CA531	jn	0.99
	D17I	2300-2600	17.5±1.3	—			0.5	0.8					14	9			1.3	1	1	CA531	jn	0.99

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]

features

- **ADC & TCD, extremely flat bandwide coupling**
- ADC low height 0.112" max.
- low insertion loss
- wideband frequency
- TCD & JDC models, solder plated leads for strain relief & excellent solderability.

applications

- communications
- cable tv
- level detecting
- signal sampling
- reflective power measurements

NOTES:

◆ Aqueous washable. For non-aqueous requirements, LRDC units available in case style QQQ130.
■ Denotes 75 ohm models.
✪ When specification for only M range given, specification applies to entire frequency range.
* TCD models protected under U.S. Patent 6140887; ADC models protected under U.S. Patents 6140887, 6133525
A. Environmental specifications and re-flow soldering information available in General Information Section.
B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
C. Prices and Specifications subject to change without notice.
1. Mainline Loss includes theoretical power loss at coupled port.

001129


JDC


LRDC-J


SCDC


TCD

	MODEL NO.	FREQ. RANGE MHz f_L-f_U	COUPLING dB Nom.	COUPLING dB Flatness	MAINLINE LOSS dB L Typ.	MAINLINE LOSS dB L Max.	MAINLINE LOSS dB M● Typ.	MAINLINE LOSS dB M● Max.	MAINLINE LOSS dB U Typ.	MAINLINE LOSS dB U Max.	DIRECTIVITY dB L Typ.	DIRECTIVITY dB L Min.	DIRECTIVITY dB M● Typ.	DIRECTIVITY dB M● Min.	DIRECTIVITY dB U Typ.	DIRECTIVITY dB U Min.	VSWR (:1) Typ.	POWER INPUT, W L Max.	POWER INPUT, W MU Max.	CASE STYLE Note B	CONNECTION	PRICE $ Qty. (1-9)
	JDC-6-1	5-400	6.5±0.5	±0.5	1.6	2.0	1.7	2.4	2.0	2.4	35	30	25	20	20	15	1.25	.5	.5	BH292	hz	14.95
	JDC-10-2	5-750	10.0±0.5	±0.6	1.0	1.5	1.0	1.5	1.0	1.5	20	15	20	17	20	16	1.13	1	1	BH292	hz	14.95
	JDC-10-4	5-1000	10.5±0.5	±0.6	1.0	1.5	1.0	1.5	1.3	1.8	23	18	23	18	24	15	1.15	1	1	BH292	hz	14.95
■	JDC-10-4-75	10-1000	10.5±0.5	±0.5	1.2	1.6	1.4	1.7	1.6	2.0	27	18	25	18	28	18	1.3	1	1	BH292	hz	14.95
■	JDC-20-3-75	2-250	19.2±0.5	±0.5	0.4	0.8	0.3	0.7	0.4	0.7	24	16	30	20	20	15	1.1	.5	1	BH292	hz	14.95
	JDC-20-1W	50-750	19.5±0.5	±0.5			0.5	0.9					22	15			1.2	.5	.5	BH292	hz	14.95
■	JDC20-1W-75	50-750	19.5±0.5	±0.5	0.5	0.9	0.5	0.7	0.5	0.9	25	18	23	15	20	15	1.2	.5	.5	BH292	hz	14.95
	JDC-20-2	400-900	20.5±1.0	±1.0			0.2	0.6					19	13			1.15	2	2	BH292	hz	14.95
	JDC-20-5	50-1500	20.5±0.5	±0.75	0.4	0.8	0.5	0.9	1.0	1.5	25	18	22	16	20	13	1.2	.5	.5	BH292	lt	17.95
◆	LRDC-10-1J	5-500	10.7±0.5	±0.5	0.9	1.4	0.9	1.4	1.2	1.9	31	25	30	20	25	16	1.2	1	1	QQQ569	cz	15.95
◆	LRDC-20-2J	300-1100	20.5±1.0	±1.3			0.25	0.6					22	10			1.2	2	2	QQQ569	cz	15.95
◆■	LRDC-10-1-75J	5-600	10.7±0.5	±0.5	1.1	1.5	1.0	1.4	1.2	1.8	19	15	21	17	21	16	1.3	1	1	QQQ569	cz	11.95
◆■	LRDC-10-2-75J	30-1000	10.0±0.5	±0.6	1.0	1.5	1.1	1.5	1.3	1.8	21	17	22	17	19	15	1.3	1	1	QQQ569	cz	13.95
◆■	LRDC-10-2W-75J	30-1200	10.0±0.5	±0.8	1.0	1.5	1.1	1.6	1.3	2.0	21	17	22	17	18	15	1.3	1	1	QQQ569	cz	15.95
◆■	LRDC-12-1-75J	5-600	12.2±0.5	±0.6	0.4	0.8	0.5	1.0	0.8	1.5	20	17	21	18	20	12	1.3	1	1	QQQ569	cz	11.95
	SCDC-11-2	500-1100	11.3±0.5	±0.6			1.1	1.8					20	10			1.4	2	2	YY161	cx	11.95
																						Qty. (25)
NEW	TCD-9-1W*	5-750	8.9±0.5	±0.5	1.2	2.1	1.2	1.8	1.5	1.9	21	17	17	10	15	—	1.30	0.5	1	DB714	mm	1.49
NEW■	TCD-9-1W-75*	5-500	8.9±0.5	±0.5	1.3	2.1	1.2	1.8	1.3	1.9	21	17	17	10	12	—	1.30	0.5	1	DB714	mm	1.49
NEW	TCD-10-1W*	10-750	10.3±0.5	±0.8	1.3	2.1	1.2	1.6	1.4	2.0	22	17	18	14	15	—	1.30	0.5	1	DB714	mm	1.49
NEW■	TCD-10-1W-75*	10-750	10.5±0.5	±0.7	1.6	2.1	1.4	1.9	1.5	2.0	22	17	18	14	14	—	1.30	0.5	1	DB714	mm	1.49
NEW	TCD-13-4*	5-1000	13.0±0.5	±0.6	0.7	1.3	0.7	1.3	0.8	1.5	21	17	18	12	15	—	1.20	0.5	1	DB714	mm	1.49
NEW■	TCD-13-4-75*	5-1000	13.0±0.5	±0.9	1.0	1.8	0.8	1.3	1.1	1.5	22	17	15	—	12	—	1.20	0.5	1	DB714	mm	1.49
NEW	TCD-18-4*	5-1000	17.9±0.5	±0.6	0.7	1.3	0.7	1.1	1.0	1.4	22	11	20	15	18	—	1.20	1	1	DB714	mm	1.49
NEW■	TCD-18-4-75*	10-1000	18.0±0.5	±0.9	0.9	1.3	0.7	1.2	0.8	1.3	20	15	22	15	18	—	1.20	1	1	DB714	mm	1.49
NEW	TCD-20-4*	5-1000	20.0±0.5	±0.8	0.3	0.9	0.4	0.8	0.7	1.1	20	11	21	15	15	—	1.20	1	1	DB714	mm	1.49

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]

Suggested PCB layout (98-PL-010) for TCD models available upon request.
Please contact Applications Department or consult our website.

pin connections

See case style outline drawing for pin locations

PORT	cx	cz	hz	jn	kd*	lt*	mm*
INPUT	1	6	1	4	1	1	3
OUTPUT	2	1	6	6	6	6	4
COUPLED (forward)	5	4	3	3	3	3	1
NOT USED (isolate)	3,6	3	4	—	5	—	5
TERMINATION	—	—	—	—	4	4	6
GND	4,7,8	2,5	2,5	1,2,5	2	2,5	2

*external resistor required

001128