

# DIRECTIONAL COUPLERS

50 & 75Ω

Coaxial

6 to 30 dB COUPLING 5 KHz to 2000 MHz



ZADC - case F14



ZADC - case CC51



ZDC



ZEDC

MODEL NO.	FREQ. RANGE MHz $f_l$ - $f_u$	COUPLING dB		MAINLINE LOSS dB				DIRECTIVITY dB			VSWR (:1) Typ.	POWER INPUT, W		CASE STYLE Note B	CONNECTION	PRICE \$ Qty. (1-9)					
		Nom.	Flatness	L	M <sup>o</sup>	U	L	M <sup>o</sup>	U	L		MU	Max.				Max.				
■ ZADC-10-4-75	10-1000	10.7±0.5	±0.5	1.18	1.9	1.28	1.9	1.32	1.9	27	20	22	15	18	13	1.17	1	1	F14	jz	54.95
■ ZADC-20-18-75	800-1750	19.8±0.6	±0.7			0.4	0.9					22	13			1.2	—	1	F14	ky	54.95
ZADC-10-10	800-1000	10±0.6	±1.0			.85	1.2					22	17			1.16	—	5	CC51	kc	49.95
ZADC-10-17	1000-1700	9.8±0.5	±1.0			0.8	1.3					25	17			1.2	5	5	CC51	kc	49.95
ZADC-10-17W	800-1900	10.2±1.0	±1.5			0.8	1.3					24	14			1.2	5	5	CC51	kc	49.95
ZADC-20-10	800-1000	20±0.6	±1.2			0.4	0.7					21	17			1.18	—	5	CC51	kc	49.95
ZADC-30-10	800-1000	30±0.6	±1.4			0.4	0.7					21	16			1.15	—	5	CC51	kc	49.95
ZDC-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	M22	dd	44.95
ZDC-20-1*	25-400	20±0.5	±0.5	0.2	0.25	0.3	0.35	0.35	0.5	25	20	35	25	25	20	1.25	3	5	M22	dd	51.95
ZDC-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	M22	dd	44.95
■ ZDC-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	2	4	M22	dd	44.95
■ ZDC-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	2	4	M22	dd	45.95
■ ZDC-2375	50-100	10.5±0.3	±0.2	—	—	—	—	1.1	1.3	—	—	—	—	35	30	1.3	—	4	M22	dd	52.95
■ ZDC-20-3-75-1	55-90	18.6±0.5	±0.3	0.4	0.6	0.4	0.6	0.4	0.6	35	30	35	30	35	30	1.2	—	4	M22	dd	52.95
ZEDC-10-2B	1-1000	11±0.5	±0.75	1.3	1.8	1.5	1.8	1.5	1.8	35	30	30	20	18	13	1.3	1.5	3	V37	db	64.95
ZEDC-15-2B	1-1000	15±0.5	±0.5	0.5	1.4	0.8	1.2	1.0	1.4	35	30	30	20	25	15	1.15	1.5	3	V37	db	64.95

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:**

- \* L = 25-50 MHz, M = 50-300 MHz, U = 300-400 MHz
- \*\* Upper range coupling ±0.75 dB
- \*\*\* Above 1000 MHz, coupling flatness ±1 dB.
- ⊗ Insertion loss specification in L range may degrade up to 1dB at cold temperature, -55°C
- ⊕ When only specification for M range given, specification applies to entire frequency range.
- ▲ Available only with SMA connectors
- Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.
- 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.

**NSN GUIDE**

MCL NO.	NSN	MCL NO.	NSN
ZDC-10-1B	5985-01-391-5675	ZFDC-15-5	5985-01-298-0144
ZDC-10-1(BNC)	5985-01-125-3467	ZFDC-15-6	5985-01-330-6792
ZDC-20-1	5985-01-178-4405	ZFDC-20-2	5985-01-230-6676
ZDC-20-3(BNC)	5985-01-096-5007	ZFDC-20-3(BNC)	5985-01-146-0478
ZDC-20-3B	5985-01-264-9105	ZFDC-20-3(TNC)	5985-01-226-7882
ZEDC-10-2	5985-01-251-2669	ZFDC-20-3(SMA)	6130-01-383-9709
ZEDC-15-2B	5985-01-337-9981	ZFDC-20-4	5985-01-266-9992
ZFDC-10-1	5985-01-230-6676	ZFDC-20-5(BNC)	5985-01-097-2192
ZFDC-10-1(SMA)	5985-01-179-5122	ZMDC-10-1	4935-01-227-6945
ZFDC-10-1B	5985-01-135-9780	ZMDC-10-1B	4935-01-227-6945
ZFDC-10-2	5985-01-208-5694	ZMDC-20-3	5985-01-193-8515
ZFDC-10-21	5985-01-253-0600		
ZFDC-10-5(SMA)	5985-01-417-0065		
ZFDC-10-6B	5985-01-314-4176		



ZFDC



ZMDC

MODEL NO.	FREQ. RANGE MHz $f_l$ - $f_u$	COUPLING dB		MAINLINE LOSS dB						DIRECTIVITY dB			VSWR (:1) Typ.	POWER INPUT, W		CASE STYLE Note B	CONNECTION	PRICE \$ Qty. (1-9)			
		Nom.	Flatness	L Typ.	M <sup>o</sup> Typ.	U Typ.	L Max.	M <sup>o</sup> Typ.	U Typ.	L Typ.	M <sup>o</sup> Typ.	U Typ.		L Max.	MU Max.						
																			Flatness	Typ.	Max.
ZFDC-10-1	1-500	10.5±0.25	±0.6	1.0	1.3	0.8	1.1	1.0	1.3	32	25	33	25	22	15	1.2	1.5	3	K18	db	44.95
ZFDC-10-2	10-1000	10.75±0.5	±0.5	1.5	2.0	1.2	1.8	1.5	2.0	35	28	30	25	27	20	1.5	1.5	3	K18	db	51.95
ZFDC-10-5	1-2000	10.8±0.5	±1.0	1.2	1.9	1.2	1.8	1.8	2.5	38	25	30	18	22	18	1.3	0.5	0.5	K18	db	84.95
ZFDC-10-6	0.005-20	11±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	K18	db	52.95
ZFDC-10-21**	1-1000	11±0.5	±0.5	1.2	2.1	1.2	1.7	1.6	2.0	40	30	25	20	25	20	1.2	1	2	K18	db	54.95
■ ZFDC-10-1-75	1-400	10.5±0.5	±0.5	1.0	1.7	1.1	1.5	1.1	1.6	46	30	44	28	34	20	1.3	2	4	K18	db	45.95
■ ZFDC-10-21-75	10-750	11±0.5	±0.75	1.5	1.8	1.5	1.9	1.7	2.1	36	30	30	20	26	20	1.4	1	2	K18	db	54.95
ZFDC-10-22	1-750	11±0.5	±0.5	1.1	1.9	1.2	1.7	1.4	1.9	35	30	25	20	25	20	1.25	1	2	K18	db	49.95
ZFDC-15-5	1-2000	15.5±0.5	±1.0	1.2	1.8	1.2	1.8	1.3	2.3	30	20	25	20	18	11	1.3	0.5	2	K18	dc	71.95
ZFDC-15-6	0.03-35	15±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	4	K18	db	49.95
ZFDC-15-10	800-1000	15±1.0	±1.0			0.3	0.7					23	17			1.2	—	5	K18	db	44.95
ZFDC-20-3	0.2-250	19.5±0.5	±0.25	0.35	0.6	0.25	0.5	0.35	0.6	36	25	33	25	25	20	1.2	1.5	4	K18	db	44.95
■ ZFDC-20-3-75	10-250	19.3±0.5	±0.3	0.25	0.4	0.3	0.5	0.4	0.6	29	25	29	25	28	24	1.2	1	2	K18	db	49.95
ZFDC-20-4	1-1000	19.5±0.5	±0.5	0.4	1.2	0.4	0.8	0.8	1.5	36	28	27	20	23	18	1.1	.5	2	K18	dc	64.95
▲ ZFDC-20-4L	10-1000	20.2±0.5	±0.5	0.2	0.5	0.3	0.7	0.7	1.2	40	20	30	16	20	14	1.1	1	1	K18	db	64.95
■ ZFDC-20-5-75	100-1500	20.5±0.5	±0.75	0.9	1.3	0.9	1.2	1.1	1.5	30	20	25	18	22	13	1.3	1	1	K18	db	64.95
ZFDC-20-5***	0.1-2000	19.5±0.5	±0.5	0.3	1	0.7	1.4	1.5	2.3	30	20	27	20	22	10	1.2	.5	2	K18	dc	84.95
▲ ZFDC-20-50***	20-2000	19.5±0.5	±0.8	0.8	1.3	0.7	1.3	1.0	1.6	30	20	25	20	22	10	1.25	1	1	K18	dc	64.95
ZMDC-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	M21	dd	49.95
⊗ ZMDC-20-3	0.2-250	19.5±0.5	±0.5	0.35	0.6	0.35	0.5	0.35	0.6	36	30	33	25	25	20	1.2	1.5	4	M21	dd	49.95
ZMDC-30-1	0.1-250	30±0.5	±0.5	0.4	0.6	0.5	0.8	0.55	0.85	23	18	20	15	17	10	1.5	1.0	3	M21	dd	51.95

L = low range [ $f_l$  to  $10f_l$ ]    M = mid range [ $10f_l$  to  $f_u/2$ ]    U = upper range [ $f_u/2$  to  $f_u$ ]

coaxial connections    see case style outline drawings

Port	db	dc	dd	de	jz	kc	ky
Input	1	3	3	S	1	1	S
Output	2	1	2	1	2	3	1
Coupled (forward)	3	2	1	3	S	2	2
Coupled (reverse)	—	—	—	2	—	—	—



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