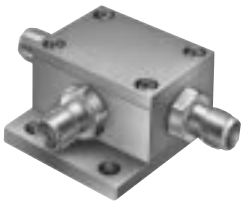
LEVEL 7 500 Hz to 10 GHz



ZMX

ZP

ZLW

ZAD

+7 dBm LO, up to +1 dBm RF

	MODEL NO.	FREQUENCY MHz LO/RF f_L-f_U	IF	CONVERSION LOSS dB Mid-Band m $\bar{x}$	σ	Max.	Total Range Max.	LO-RF ISOLATION, dB L Typ.	Min.	M Typ.	Min.	U Typ.	Min.	LO-IF ISOLATION, dB L Typ.	Min.	M Typ.	Min.	U Typ.	Min.	CASE STYLE Note B	CONNECTION	PRICE $ Qty. (1-9)
	ZMX-7GR	3700-7000	DC-1000	5.0	.30	—	8.2	30 (typ.)		20 (min.)				36 (typ.)		20 (min.)				BU413	af	71.95
	ZMX-10G	3700-10000	DC-2000	5.0	.10	—	8.5	37 (typ.)		20 (min.)*				17 (typ.)		8 (min.)				BU413	ad	81.95
	ZP-1	2-600	DC-600	5.85	.10	7.0	8.0	60	50	42	30	37	25	60	45	47	30	36	22		ag	39.95
	ZP-2	50-1000	DC-1000	5.85	.10	7.5	9.0	58	40	47	30	42	25	50	35	44	20	29	18	GG60	ag	39.95
†	ZP-3	0.15-400	DC-400	4.7	.10	7.0	8.0	60	50	46	30	35	25	60	40	47	25	35	20	GG60	ag	39.95
	ZP-5	20-1500	DC-1000	5.7	.10	9.0	9.0	54	40	42	30	39	25	40	25	32	18	23	8	GG60	ag	47.95
	ZP-5X	1-1500	1-1000	5.9	.10	7.0	9.0	60	40	40	20	28	17	60	45	45	25	38	20	GG60	hg	47.95
	ZP-11A	1400-1900	40-500	6.8	.30	8.6	8.6	33(typ.)		20 (min.)				29 (typ.)		15 (min.)				GG60	ag	47.95
	ZP-860	800-1050	DC-250	5.6	.24	7.75	7.75	35(typ.)		25 (min.)				27 (typ.)		20 (min.)				GG60	ag	47.95
	ZP10514	.2-500	DC-500	5.18	.10	7.0	8.5	55	45	50	35	35	30	50	40	36	30	30	20	GG60	ag	62.95
	ZLW-1	.5-500	DC-500	5.81	.08	7.0	8.5	50	45	45	30	35	25	45	35	40	25	30	20	M21	ae	51.95
	ZLW-1W	1-750	DC-750	5.74	.05	7.5	8.5	50	45	45	30	35	25	45	30	40	25	30	20	M21	ae	56.95
	ZLW-1-1	.1-500	DC-500	4.82	.07	7.5	8.5	50	45	45	30	35	25	45	30	40	25	30	20	M21	ae	53.95
	ZLW-2	1-1000	DC-1000	5.68	.08	7.5	9.5	55	45	40	25	35	20	50	40	40	25	30	20	M21	ae	56.95
	ZLW-3	.025-200	DC-200	4.61	.06	7.5	8.5	60	50	45	35	35	25	45	35	40	30	30	20	M21	ae	53.95
	ZLW-5	5-1500	10-600	5.81	.08	7.5	8.5	55	40	35	25	30	20	50	40	35	25	30	20	M21	ae	61.95
	ZLW-6	.003-100	DC-100	4.58	.05	7.5	8.5	60	50	45	30	35	25	60	45	40	25	30	25	M21	ae	64.95
	ZLW-11	5-2000	10-600	6.85	.10	8.5	9.0	50	45	35	25	30	20	45	40	30	20	25	15	M21	ae	71.95
	ZLW-12	800-1250	50-90	6.21	.13	—	7.5	35	25	35	25	35	25	30	20	30	20	30	20	M21	ae	71.95
	ZAD-1	.5-500	DC-500	5.24	.10	7.0	8.5	50	45	45	30	35	25	45	35	40	25	30	20	M22	ae	43.95
	ZAD-1-1	.1-500	DC-500	4.83	.04	7.5	8.5	50	45	45	30	35	25	45	30	40	25	30	20	M22	ae	44.95
	ZAD-2	1-1000	.5-500	5.66	.07	7.5	8.5	45	30	35	20	30	20	45	30	35	20	30	20	M22	ad	49.95
	ZAD-3	.025-200	DC-200	4.61	.06	7.5	8.5	60	50	45	35	35	25	45	35	40	30	30	20	M22	ae	45.95
	ZAD-6	.003-100	DC-100	4.65	.08	7.5	8.5	60	50	45	30	35	25	60	45	40	25	30	20	M22	ae	51.95
	ZAD-8	.0005-10	DC-10	5.79	.05	7.5	8.5	60	50	50	40	45	35	60	50	50	40	45	35	M22	ae	54.95
	ZAD-11	5-2000	10-600	7.12	.12	8.5	9.0	50	45	35	25	30	20	45	40	30	20	25	15	M22	ae	61.95
	ZAD-12	800-1250	50-90	6.21	.13	7.5	7.5	35	25	35	25	35	25	30	20	30	20	30	20	M22	ae	61.95

L = low range [f_L to 10 f_L]

M = mid range [10 f_L to f_U/2]

m = mid band [2f_L to f_U/2]

U = upper range [f_U/2 to f_U]

NOTES:

$\bar{x}$ Average of conversion loss at center of mid-band frequency (f_L+f_U/4)
σ Standard deviation
▲ Available only with SMA connectors
▼ When ordering, specify BNC or SMA connectors (ZFM-2000, ZFM-4212 SMA only.)
† Phase detection, positive polarity
* 15 dB min. 8.5 to 10 GHz
A. General Quality Control Procedures, Environmental Specifications, Hi-Rel and MIL description are given in section 0, see "Mini-Circuits Guarantees Quality" article.
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. Absolute maximum power, voltage and current ratings:
1a. RF power, 50mW
1b. Peak IF current, 40mA

020710


ZEM


ZFM ▼


ZAM ▲

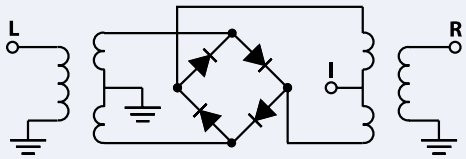
+7 dBm LO, up to +1 dBm RF

MODEL NO.	FREQUENCY MHz LO/RF f_L-f_U	IF	CONVERSION LOSS dB Mid-Band m $\bar{x}$	σ	Max.	Total Range Max.	LO-RF ISOLATION, dB L Typ.	Min.	M Typ.	Min.	U Typ.	Min.	LO-IF ISOLATION, dB L Typ.	Min.	M Typ.	Min.	U Typ.	Min.	CASE STYLE Note B	CONNECTION	PRICE $ Qty. (1-9)
ZEM-2B	10-1000	DC-1000	5.74	.07	7.0	8.5	55	50	30	25	25	20	55	45	30	20	25	20	V37	ad	59.95
ZEM-4300	300-4300	DC-1000	6.65	.06	—	9.5	40	20	—	—	30	17	15	8	—	—	15	8	V37	af	79.95
ZFM-1W	10-750	DC-750	5.42	.14	7.0	8.0	50	45	45	30	35	25	45	40	40	25	27	20	K18	ad	51.95
ZFM-2	1-1000	DC-1000	5.72	.06	7.5	8.5	50	45	40	25	30	25	45	40	35	25	25	20	K18	ad	53.95
ZFM-3	0.04-400	DC-400	4.78	.03	7.0	8.0	60	50	50	35	35	25	55	40	45	30	35	25	K18	ad	61.95
† ZFM-4	5-1250	DC-1250	5.70	.34	7.5	8.5	50	45	40	30	30	25	45	40	35	25	25	20	K18	ad	61.95
ZFM-5X	1-1500	1-1000	5.9	.10	7.0	9.0	60	40	40	20	28	17	60	45	45	25	38	20	K18	ae	59.95
ZFM-11	1-2000	5-600	7.03	.17	8.5	9.0	50	45	35	25	25	20	45	40	27	20	25	20	K18	ad	89.95
ZFM-12	800-1250	50-90	5.67	.12	—	7.5	35	25	35	25	35	25	30	20	30	20	30	20	K18	ad	79.95
ZFM-2000	100-2000	DC-600	7.49	.20	9.5	9.5	—	—	37	20	—	—	—	—	—	—	30	20	K18	ad	71.95
ZFM-4212	2000-4200	DC-1300	5.44	.088	—	8.5	—	—	25	17	—	—	—	—	18	10	—	—	K18	ad	54.95
ZAM-42	1500-4200	DC-500	5.67	.11	—	8.5	25	14	25	14	25	14	18	10	18	10	18	10	F14	af	54.95

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

NSN GUIDE

MCL NO.	NSN
ZAD-1	5895-01-455-4088
ZAD-1B(BNC)	5985-00-280-7750
ZAD-4B	5895-01-127-0376
ZAD-6B	5895-01-344-7843
ZEM-2	5895-01-235-7834
ZFM-1W	5895-01-412-3037
ZFM-2	4935-01-230-3782
ZFM-3	5895-01-257-9523
ZFM-3 (SMA)	5895-01-214-7362
ZFM-3B	5895-01-381-9289
ZFM-11(SMA)	6625-01-415-2182
ZLW-1W	5895-00-607-7010
ZLW-2	6920-01-037-1974
ZLW-2B	5840-01-186-8398
ZP-3	5985-00-105-9756
ZP-10514	6625-01-108-6156
ZP-10514(BNC)	5895-01-384-7453



coaxial connections

see case style outline drawings

PORT	ad	ae	af	ag	hg
LO	1	1	2	L	L
RF	2	3	1	R	X
IF	3	2	3	X	R
GND EXT.	—	—	—	—	—
CASE GND	—	—	—	—	—
NOT USED	—	—	—	—	—

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