

FREQUENCY MIXERS

SMA Coaxial

RUGGED, BROAD BAND 0.5 to 6000 MHz



ZX05

NEW!

electrical specifications at 25°C

MODEL NO.	LO LEVEL (dBm)	RF @ 1dB Comp. Typ. (dBm)	FREQUENCY MHz		CONVERSION LOSS dB				LO-RF ISOLATION dB						LO-IF ISOLATION dB						IP3@ center band Typ. (dBm)	E f a c t o r	CASE STYLE	C O N N E C T I O N	PRICE \$
			LO/RF f_L - f_U	IF	$\bar{x}$	σ	Max.	Total Range Max.	L Typ. Min.	M Typ. Min.		U Typ. Min.	L Typ. Min.	M Typ. Min.		U Typ. Min.	Qty. (10-49)								
ZX05-1L	+3	0	2-500	DC-500	5.2	0.1	7.2	8.0	68	50	55	30	44	30	55	40	45	30	35	25	16	1.3	FL905	ad	37.95
† ZX05-10L	+4	+1	10-1000	DC-800	7.2	0.1	8.2	8.8	70	55	60	40	47	37	40	26	37	20	24	13	16	1.2	FL905	ad	37.95
ZX05-1	+7	+1	0.5-500	DC-500	5.0	0.1	6.5	7.8	70	50	55	35	45	30	65	45	40	25	30	20	15	0.8	FL905	ad	37.95
† ZX05-2	+7	+1	5-1000	DC-1000	6.67	0.26	8.0	9.5	65	50	47	25	35	22	62	35	45	25	32	20	20	1.3	FL905	ad	37.95
ZX05-10	+7	+1	10-1000	DC-800	6.8	0.1	7.8	8.3	80	50	60	40	47	37	40	26	33	20	24	13	16	0.9	FL905	ad	37.95
† ZX05-5	+7	+1	5-1500	DC-1000	6.6	0.1	7.5	9.3	50	40	40	25	33	23	50	40	30	20	20	10	15	0.8	FL905	ad	37.95
ZX05-11X	+7	+1	10-2000	5-1000	7.1	0.1	8.2	9.8	62	45	36	20	27	18	60	45	37	20	38	20	9	0.2	FL905	ad	37.95
• ZX05-C24	+7	+1	300-2400	DC-700	6.1	0.1	8.9	—	40 (typ.)	25 (min.)	—	—	—	—	25 (typ.)	15 (min.)	—	—	—	—	10	0.3	FL905	ad	37.95
ZX05-30W	+7	+1	300-4000	DC-950	6.8	0.2	9.0	9.8	35 (typ.)	17 (min.)	—	—	—	—	16 (typ.)	7 (min.)	—	—	—	—	12	0.5	FL905	ad	37.95
ZX05-C42	+7	+1	1000-4200	DC-1500	6.1	0.1	8.9	—	35 (typ.)	23 (min.)	—	—	—	—	20 (typ.)	12 (min.)	—	—	—	—	10	0.3	FL905	ad	37.95
• ZX05-C60	+7	+1	1600-4400	DC-2000	6.3	0.2	8.3	—	32 (typ.)	20 (min.)	—	—	—	—	17 (typ.)	—	—	—	—	—	9	0.2	FL905	ad	37.95
			4400-6000	DC-2000	6.2	0.3	8.5	—	23 (typ.)	17 (min.)	—	—	—	—	18 (typ.)	—	—	—	—	—	8	0.1	FL905	ad	37.95

E= $[IP3(dBm) - LO\ Power(dBm)]/10$

L = low range [f_L to $10 f_L$]

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

U = upper range [$f_U/2$ to f_U]

features

- rugged construction
- small size
- low conversion loss
- high L-R isolation
- multiple patents pending

applications

- cellular
- PCS
- instrumentation
- satellite communication

NOTES:

$\bar{x}$ Average of conversion loss at center of mid-band frequency ($f_L + f_U/4$)

σ Standard deviation

† Models noted have positive phase detection. Phase detection negative for all other models.

• Conversion loss specification at 30 MHz IF. For performance vs. IF see our website.

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, 50 mW, 200 mW (for LO+13, +17)

1b. Peak IF current, 40 mA

2. Operating Temperature, -40°C to 85°C



INTERNET <http://www.minicircuits.com>

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ISO 9001 CERTIFIED

NEW!



ZX05

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MODEL NO.	LO LEVEL (dBm)	RF @ 1dB Comp. Typ. (dBm)	FREQUENCY MHz		CONVERSION LOSS dB				LO-RF ISOLATION dB						LO-IF ISOLATION dB						IP3@ center band Typ. (dBm)	E factor	CASE STYLE	CONNECTION	PRICE \$					
			LO/RF f _L -f _U	IF	x	σ	Max.	Total Range Max.	L			M			U			L							M			U		
									Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.					Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Qty. (10-49)	
ZX05-1LHW	+10	+5	2-750	DC-750	5.3	0.1	6.8	8.5	66	50	52	35	46	27	64	40	50	27	40	20	15	0.5	FL905	ad	38.95					
• ZX05-C24LH	+10	+5	300-2400	DC-700	6.5	0.1	8.9	—			40 (typ.)	25 (min.)				30 (typ.)	15 (min.)			13	0.3	FL905	ad	38.95						
ZX05-C42LH	+10	+5	1000-4200	DC-1500	6.0	0.1	8.9	—			38 (typ.)	23 (min.)				20 (typ.)	11 (min.)			12	0.2	FL905	ad	38.95						
• ZX05-C60LH	+10	+5	1600-4400	DC-2000	6.3	0.1	7.9	—			35 (typ.)	23 (min.)				17 (typ.)	—			13	0.3	FL905	ad	38.95						
			4400-6000	DC-2000	6.0	0.1	8.3	—			27 (typ.)	20 (min.)				21 (typ.)	—			11	0.1	FL905	ad	38.95						
† ZX05-1MHW	+13	+9	0.5-600	DC-600	5.2	0.1	6.9	8.0	63	50	53	32	43	20	56	40	44	25	30	20	17	0.4	FL905	ad	39.95					
ZX05-12MH	+13	+9	10-1200	DC-1200	6.3	0.1	8.0	9.3	62	45	45	32	40	26	68	40	42	27	30	20	22	0.9	FL905	ad	39.95					
• ZX05-C24MH	+13	+9	300-2400	DC-700	6.1	0.1	8.6	—			40 (typ.)	20 (min.)				25 (typ.)	14 (min.)			13	0	FL905	ad	39.95						
ZX05-25MH	+13	+9	5-2500	5-1500	6.9	0.1	8.8	9.8	47	28	34	23	34	23	34	23	32	18	23	17	18	0.5	FL905	ad	39.95					
ZX05-42MH	+13	+9	5-4200	5-3500	7.5	0.2	9.8	11.8	47	28	29	20	30	15	34	23	26	17	23	17	19	0.6	FL905	ad	39.95					
ZX05-C42MH	+13	+9	1000-4200	DC-1500	6.2	0.1	8.9	—			35 (typ.)	15 (min.)				20 (typ.)	10 (min.)			16	0.3	FL905	ad	39.95						
• ZX05-C60MH	+13	+9	1600-4400	DC-2000	6.9	0.1	8.5	—			32 (typ.)	25 (min.)				17 (typ.)	—			15	0.2	FL905	ad	39.95						
			4400-6000	DC-2000	6.0	0.1	8.5	—			22 (typ.)	18 (min.)				15 (typ.)	—			15	0.2	FL905	ad	39.95						
ZX05-1HW	+17	+14	5-750	DC-750	6.0	0.1	8.6	9.0	64	45	48	35	42	28	50	35	40	30	30	20	26	0.9	FL905	ad	41.95					
† ZX05-10H	+17	+14	10-1000	DC-800	7.0	0.1	8.5	9.5	68	52	55	38	47	25	46	30	32	20	26	13	22	0.5	FL905	ad	41.95					
ZX05-17H	+17	+14	100-1700	50-1500	7.2	0.1	8.5	9.5	32	20	—	—	36	22	32	20	—	—	37	22	25	0.8	FL905	ad	41.95					
ZX05-20H	+17	+14	1500-2000	DC-300	5.2	0.2	7.8	—			31 (typ.)	22 (min.)				34 (typ.)	20 (min.)			22	0.5	FL905	ad	41.95						

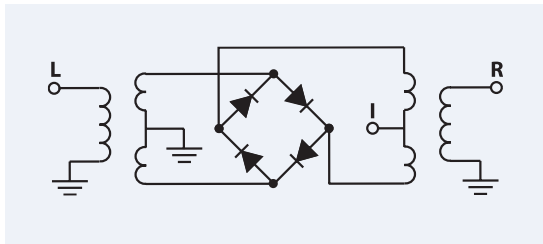
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U = upper range [$f_U/2$ to f_U]

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



coaxial connections

see case style outline drawing for pin locations

PORT	ad
LO	1
RF	2
IF	3



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