

Frequency Mixers

0.5 to 6000 MHz

NEW!**ZX05-SERIES**

CASE STYLE: FL905

Features

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

Applications

- cellular
- PCS
- instrumentation
- satellite communication

Electrical Specifications ($T_{AMB} = 25^{\circ}\text{C}$)

MODEL NO.	LO level (dBm)	RF @ 1dB compr. (dBm) Typ.	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	PRICE \$
					Mid band			Total Range Max.	L		M		U	L		M		U	Qty. (1-24)				
			$\bar{x}$	σ	Max.	Typ.	Min.		Typ.	Min.	Typ.	Min.		Typ.	Min.	Typ.	Min.						
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	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	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	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	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	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	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	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	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	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	37.95		
• ZX05-C60	+7	+1	1600-6000	DC-2000																			
			1600-4400	DC-2000	6.3	0.2	8.3	—	32 (typ.) 20 (min.)						17 (typ.)		—		9	0.2	37.95		
			4400-6000	DC-2000	6.2	0.3	8.5	—	23 (typ.) 17 (min.)						18 (typ.)		—		8	0.1	37.95		
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	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	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	38.95		
• ZX05-C60LH	+10	+5	1600-6000	DC-2000																			
			1600-4400	DC-2000	6.3	0.1	7.9	—	35 (typ.) 23 (min.)						17 (typ.)		—		13	0.3	38.95		
			4400-6000	DC-2000	6.0	0.1	8.3	—	27 (typ.) 20 (min.)						21 (typ.)		—		11	0.1	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	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	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	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	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	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	39.95		
• ZX05-C60MH	+13	+9	1600-6000	DC-2000																			
			1600-4400	DC-2000	6.9	0.1	8.5	—	32 (typ.) 25 (min.)						17 (typ.)		—		15	0.2	39.95		
			4400-6000	DC-2000	6.0	0.1	8.5	—	22 (typ.) 18 (min.)						15 (typ.)		—		15	0.2	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	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	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	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	41.95		

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

† 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.

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]
Mini-Circuits®

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

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

ISO 9001 CERTIFIED

 REV. OR
M86288
ED-10927
ZX05-SERIES
RVN/CP
030528
page 1 of 2

ZX05-SERIES

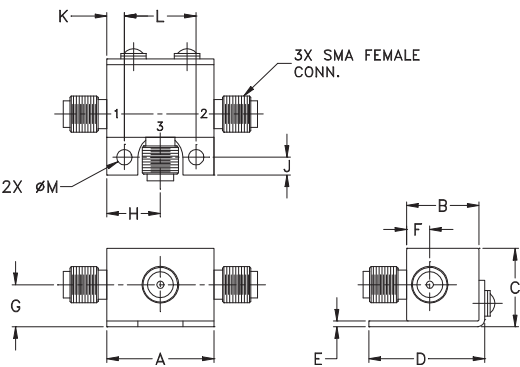
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW, 200mW(for LO+13, +17)
IF Current	40mA

Port Connections

PORT	
LO	1
RF	2
IF	3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.74	.50	.54	.80	.04	.16	.29	.37	.122
18.80	12.70	13.72	20.32	1.02	4.06	7.37	9.40	3.10
K	L	M	wt.					
.122	.496	.106	grams					
3.10	12.60	2.69	20.0					