

# Coaxial Frequency Mixer

## ZP-10514+ ZP-10514

Level 7 (LO Power +7 dBm) 0.2 to 500 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

### Coaxial Connections

LO	L
RF	R
IF	X

### Features

- low conversion loss, 5.18 dB typ.
- high L-R isolation, 50 dB typ.
- rugged shielded case

### Applications

- VHF/UHF
- instrumentation

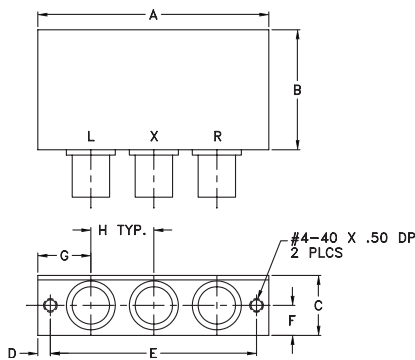
BNC version shown  
CASE STYLE: GG60

Connectors	Model	Price	Qty.
BNC	ZP-10514+	\$62.95 ea.	(1-9)
SMB	ZP-10514-SMB(+)	\$62.95 ea.	(1-9)
SMA	ZP-10514-S(+)	\$77.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	wt
2.31	1.20	.60	.125	2.062	.30	.53	.63	grams
58.67	30.48	15.24	3.18	52.37	7.62	13.46	16.00	75.0

### Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range Max.	L	M		U		L	M		U				
$f_L-f_U$		$\bar{X}$	$\sigma$			Typ.	Min.	Typ.	Min.		Typ.	Min.	Typ.	Min.	Typ.	Min.	
0.2-500	DC-500	5.18	0.10	7.0	8.5	55	45	50	35	35	30	50	40	36	30	30	20

1 dB COMP.: +1 dBm typ.

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

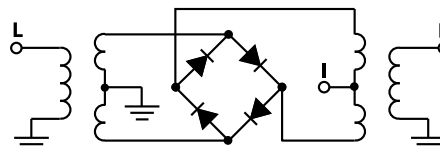
M = mid range [ $10 f_L$  to  $f_U/2$ ]

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

### Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
0.20	30.20	8.36	59.54	51.65	1.28	1.46
0.50	30.50	6.85	57.86	50.98	1.26	1.41
2.00	32.00	6.13	56.96	50.94	1.25	1.39
10.00	40.00	5.43	55.15	50.65	1.24	1.48
32.45	62.45	5.43	51.84	49.39	1.21	1.45
64.69	94.69	5.61	48.95	47.53	1.20	1.42
100.00	70.00	5.53	47.52	46.53	1.20	1.39
145.30	115.30	5.74	45.03	44.48	1.19	1.38
177.55	147.55	5.41	42.85	42.69	1.17	1.36
200.00	170.00	5.73	41.70	41.72	1.17	1.37
225.92	195.92	5.49	40.73	40.61	1.16	1.36
258.16	228.16	5.71	39.01	39.00	1.16	1.42
290.41	260.41	5.50	38.47	38.33	1.16	1.43
322.65	292.65	5.79	37.73	37.34	1.19	1.51
354.90	324.90	5.52	36.24	35.86	1.20	1.53
387.14	357.14	5.63	35.26	34.80	1.22	1.58
419.39	389.39	5.74	35.03	34.31	1.24	1.58
435.51	405.51	5.66	35.44	34.71	1.26	1.62
467.75	437.75	6.15	35.03	34.13	1.30	1.67
500.00	470.00	5.98	34.57	33.52	1.32	1.65

### Electrical Schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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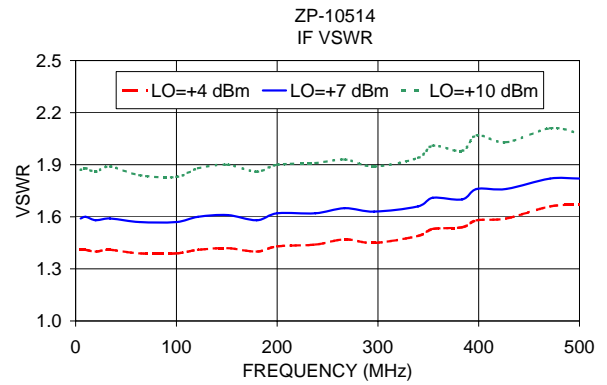
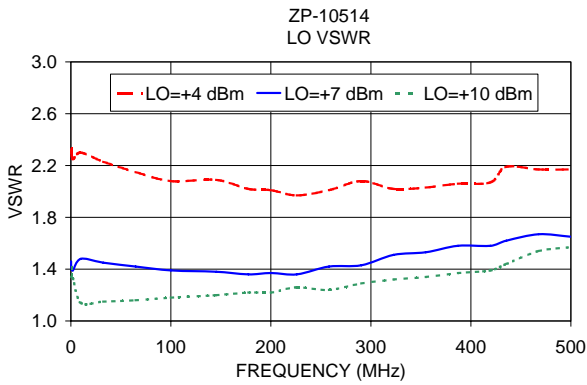
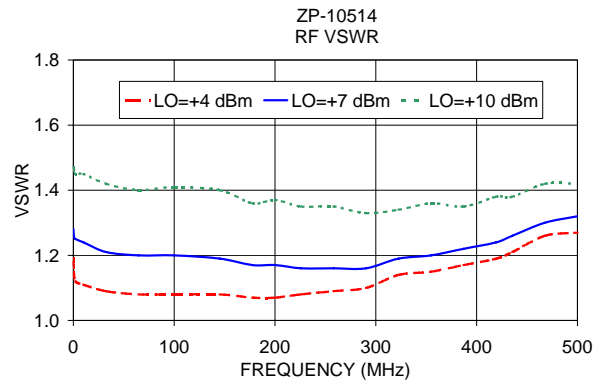
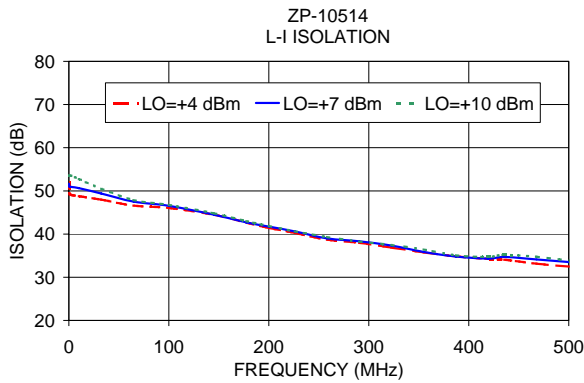
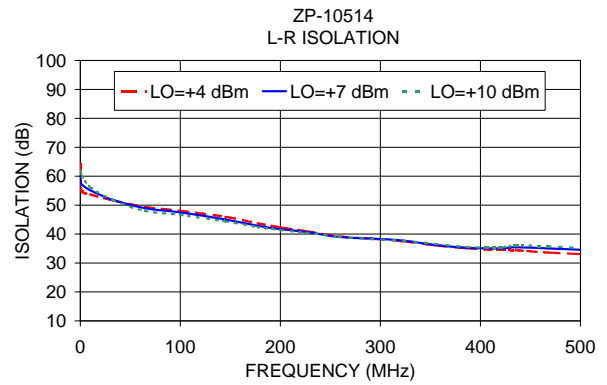
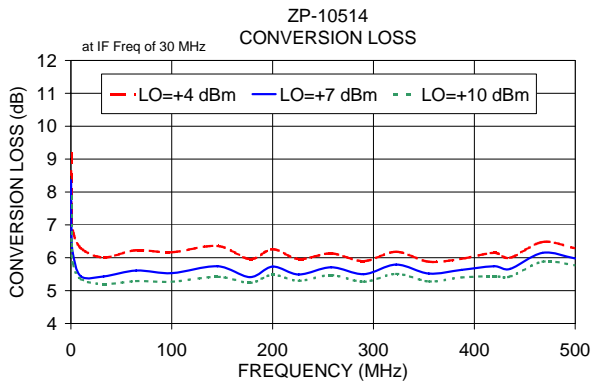
IF/RF MICROWAVE COMPONENTS

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Page 1 of 2

# Performance Charts

# ZP-10514+ ZP-10514



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