

# Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 1000 MHz

## ZLW-2



Generic photo used for illustration purposes only

CASE STYLE: M21

Connectors Model

SMA ZLW-2

BRACKET (OPTION "B")

BRACKET (OPTION "BR")

### 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 | 1 |
| RF | 3 |
| IF | 2 |

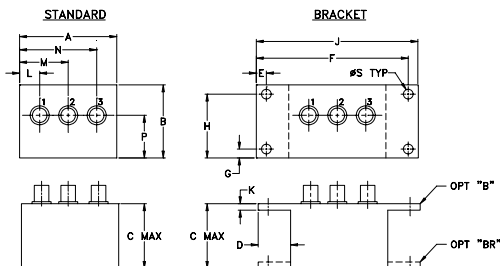
### Features

- low conversion loss, 5.68 dB typ.
- high L-R isolation, 40 dB typ., L-I, 40 dB typ.
- wideband, 1 to 1000 MHz
- rugged shielded case

### Applications

- VHF/UHF
- cellular
- instrumentations

### Outline Drawing



### Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E    | F     | G    | H     |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.50  | 1.13  | 1.00  | .50   | .155 | 2.345 | .138 | .987  |
| 38.10 | 28.70 | 25.40 | 12.70 | 3.94 | 59.56 | 3.51 | 25.07 |

| J     | K    | L    | M     | N     | P     | S    | wt    |
|-------|------|------|-------|-------|-------|------|-------|
| 2.50  | .10  | .31  | .75   | 1.19  | .66   | .150 | grams |
| 63.50 | 2.54 | 7.87 | 19.05 | 30.23 | 16.76 | 3.81 | 40.0  |

### Electrical Specifications

| FREQUENCY (MHz) | CONVERSION LOSS (dB) | LO-RF ISOLATION (dB) |    |    | LO-IF ISOLATION (dB) |    |    |    |    |    |    |    |    |
|-----------------|----------------------|----------------------|----|----|----------------------|----|----|----|----|----|----|----|----|
|                 |                      | L                    | M  | U  | L                    | M  | U  |    |    |    |    |    |    |
| 1-1000          | DC-1000              | 55                   | 45 | 40 | 25                   | 35 | 20 | 50 | 40 | 40 | 25 | 30 | 20 |

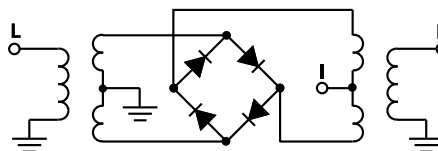
1 dB COMP.: +1 dBm typ.

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  $f_U/2$ ]

### Typical Performance Data

| Frequency (MHz) | Conversion Loss (dB) |          | Isolation L-R (dB) | Isolation L-I (dB) | VSWR RF Port (:1) | VSWR LO Port (:1) |
|-----------------|----------------------|----------|--------------------|--------------------|-------------------|-------------------|
|                 | LO                   | LO +7dBm | LO +7dBm           | LO +7dBm           | LO +7dBm          | LO +7dBm          |
| 1.00            | 31.00                | 7.23     | >67.00             | >67.00             | 1.30              | 2.70              |
| 2.00            | 32.00                | 6.50     | >67.00             | >67.00             | 1.15              | 2.63              |
| 5.00            | 35.00                | 5.80     | >67.00             | >67.00             | 1.07              | 2.77              |
| 10.00           | 40.00                | 5.62     | >67.00             | >67.00             | 1.06              | 2.55              |
| 20.00           | 50.00                | 5.68     | >67.00             | >67.00             | 1.07              | 2.41              |
| 50.00           | 80.00                | 5.58     | 61.94              | 63.74              | 1.09              | 2.37              |
| 100.00          | 70.00                | 5.53     | 54.33              | 54.76              | 1.11              | 2.29              |
| 167.34          | 137.34               | 5.57     | 48.65              | 47.61              | 1.16              | 2.20              |
| 233.87          | 203.87               | 5.72     | 45.10              | 43.03              | 1.18              | 2.16              |
| 300.40          | 270.40               | 5.45     | 42.56              | 40.00              | 1.20              | 2.13              |
| 366.94          | 336.94               | 5.73     | 40.45              | 37.57              | 1.22              | 2.06              |
| 466.74          | 436.74               | 5.82     | 38.33              | 34.32              | 1.23              | 2.13              |
| 500.00          | 470.00               | 5.72     | 38.80              | 34.10              | 1.26              | 2.09              |
| 599.81          | 569.81               | 6.02     | 37.43              | 32.81              | 1.29              | 2.09              |
| 666.34          | 636.34               | 6.11     | 37.94              | 31.57              | 1.34              | 2.04              |
| 799.41          | 769.41               | 6.27     | 36.06              | 29.67              | 1.40              | 2.13              |
| 832.68          | 802.68               | 6.46     | 35.22              | 28.79              | 1.47              | 2.19              |
| 899.21          | 869.21               | 7.00     | 33.77              | 26.14              | 1.55              | 2.24              |
| 932.48          | 902.48               | 7.37     | 33.17              | 25.03              | 1.66              | 2.28              |
| 1000.00         | 969.00               | 7.63     | 32.49              | 23.59              | 1.72              | 2.30              |

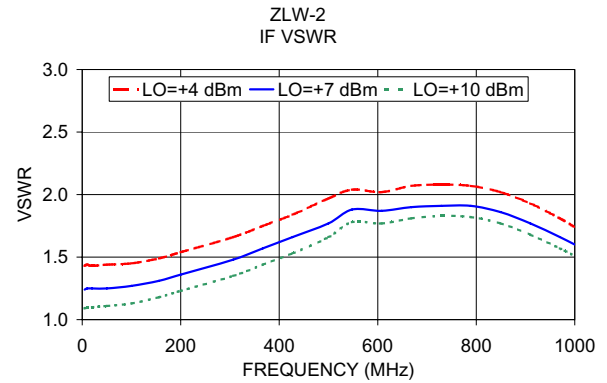
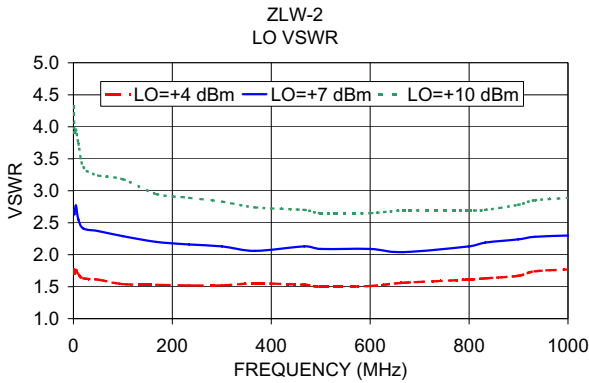
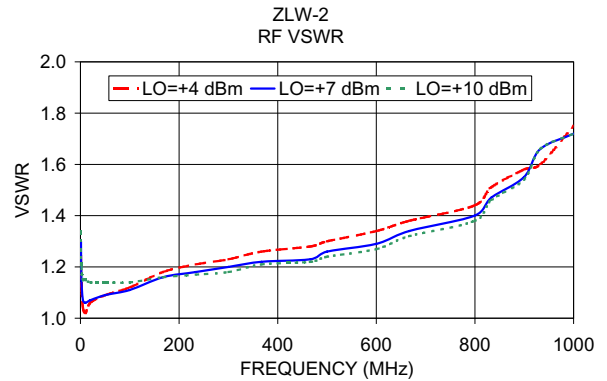
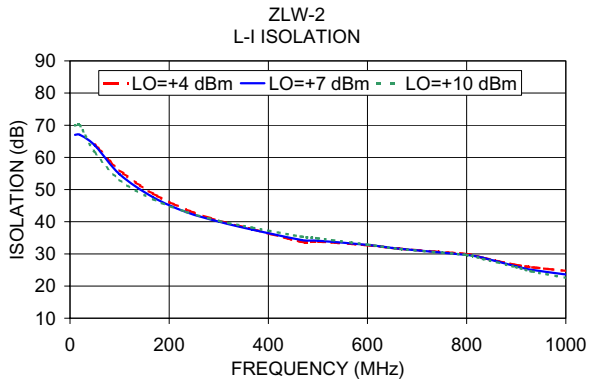
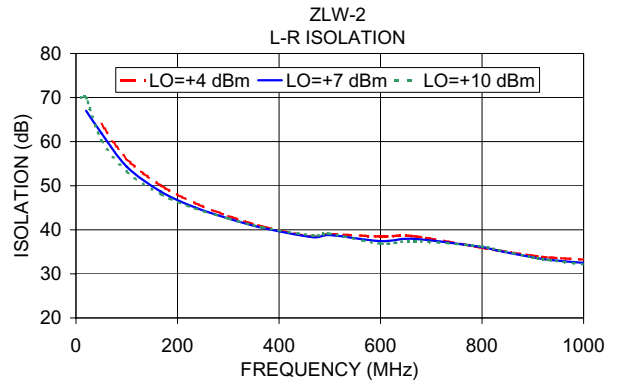
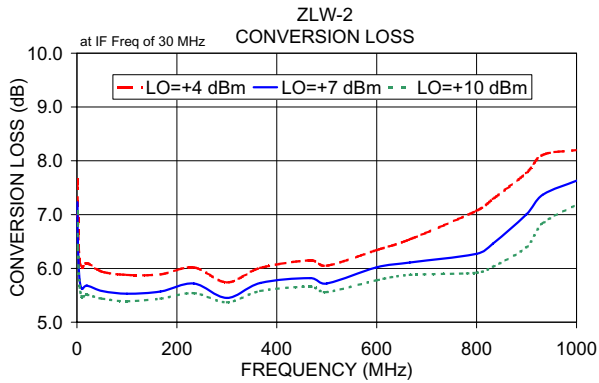
### Electrical Schematic



### Notes

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