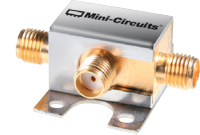


Coaxial Frequency Mixer

ZX05-1LHW+

Level 10 (LO Power +10 dBm) 2 to 750 MHz



CASE STYLE: FL905

| Connectors | Model |
|------------|--------------|
| SMA | ZX05-1LHW-S+ |

+RoHS Compliant

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

Maximum Ratings

| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power | 50mW |
| IF Current | 40mA |

Coaxial Connections

| | |
|----|---|
| LO | 1 |
| RF | 2 |
| IF | 3 |

Features

- rugged construction
- small size
- low conversion loss
- high L-R isolation
- protected by US Patents 6,133,525 & 6,790,049

Applications

- cellular
- PCS
- instrumentation
- satellite communication

Electrical Specifications (T_{AMB}=25°C)

| FREQUENCY (MHz) | CONVERSION LOSS (dB) | LO-RF ISOLATION (dB) | | | LO-IF ISOLATION (dB) | | | IP3 at center band (dBm) | | | | | | | | | | |
|--------------------------------|-------------------------|----------------------|------|------|----------------------|------|------|--------------------------|----|----|----|----|----|----|----|----|----|----|
| | | L | M | U | L | M | U | | | | | | | | | | | |
| LO/RF | Mid-Band m | | | | | | | | | | | | | | | | | |
| f _L -f _U | \bar{X} σ Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | | | | | | | | | | |
| 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 |

1 dB COMP.: +5 dBm typ.

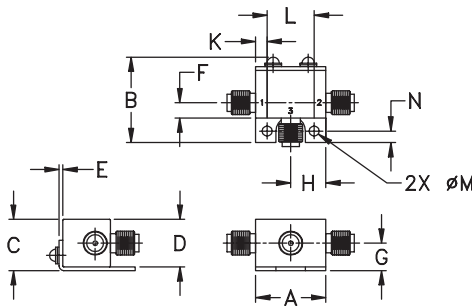
L = low range [f_L to 10 f_L]

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]

Outline Drawing



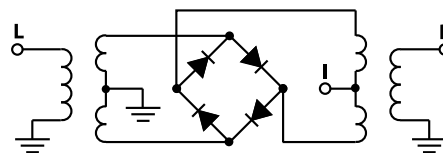
Outline Dimensions (inch/mm)

| | | | | | | | |
|-------|-------|-------|-------|------|------|-------|--|
| A | B | C | D | E | F | G | |
| .74 | .90 | .54 | .50 | .04 | .16 | .29 | |
| 18.80 | 22.86 | 13.72 | 12.70 | 1.02 | 4.06 | 7.37 | |
| H | J | K | L | M | N | wt | |
| .37 | -- | .122 | .496 | .106 | .122 | grams | |
| 9.40 | -- | 3.10 | 12.60 | 2.69 | 3.10 | 20.0 | |

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 +10dBm | LO +10dBm | LO +10dBm | LO +10dBm | LO +10dBm |
| 2.10 | 32.10 | 5.66 | 59.62 | 51.83 | 1.25 | 2.36 |
| 35.10 | 65.10 | 5.32 | 58.24 | 51.21 | 1.07 | 2.33 |
| 75.10 | 45.10 | 5.38 | 55.93 | 50.03 | 1.07 | 2.32 |
| 120.10 | 90.10 | 5.37 | 53.75 | 48.44 | 1.09 | 2.31 |
| 141.10 | 111.10 | 5.36 | 52.84 | 47.70 | 1.10 | 2.33 |
| 183.10 | 153.10 | 5.42 | 51.21 | 45.39 | 1.12 | 2.33 |
| 225.10 | 195.10 | 5.43 | 50.01 | 43.72 | 1.14 | 2.36 |
| 267.10 | 237.10 | 5.50 | 48.69 | 42.00 | 1.16 | 2.34 |
| 309.10 | 279.10 | 5.48 | 48.07 | 40.61 | 1.19 | 2.39 |
| 351.10 | 321.10 | 5.54 | 46.97 | 39.10 | 1.21 | 2.33 |
| 375.10 | 345.10 | 5.53 | 46.13 | 38.22 | 1.22 | 2.36 |
| 414.10 | 384.10 | 5.58 | 44.75 | 37.04 | 1.25 | 2.39 |
| 456.10 | 426.10 | 5.69 | 44.54 | 36.26 | 1.28 | 2.34 |
| 519.10 | 489.10 | 5.82 | 45.58 | 35.79 | 1.32 | 2.28 |
| 540.10 | 510.10 | 5.85 | 45.82 | 35.82 | 1.33 | 2.28 |
| 582.10 | 552.10 | 5.88 | 45.49 | 35.25 | 1.34 | 2.39 |
| 624.10 | 594.10 | 5.88 | 44.72 | 34.10 | 1.33 | 2.36 |
| 666.10 | 636.10 | 6.06 | 42.54 | 32.43 | 1.29 | 2.53 |
| 708.10 | 678.10 | 6.25 | 41.92 | 31.16 | 1.29 | 2.45 |
| 750.10 | 720.10 | 6.52 | 41.78 | 30.01 | 1.35 | 2.54 |

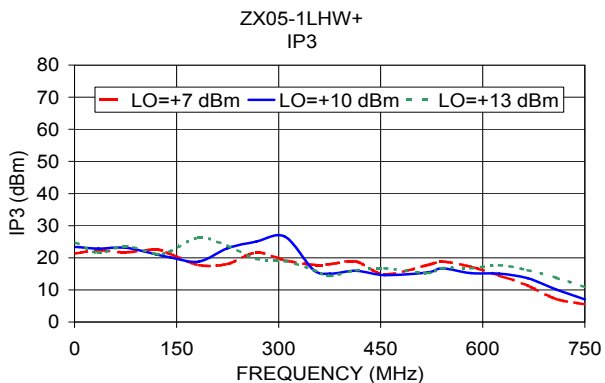
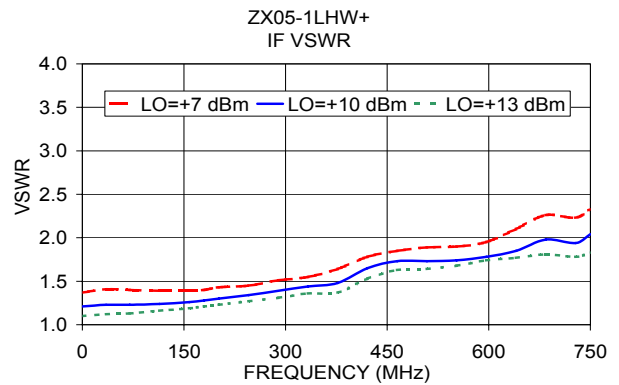
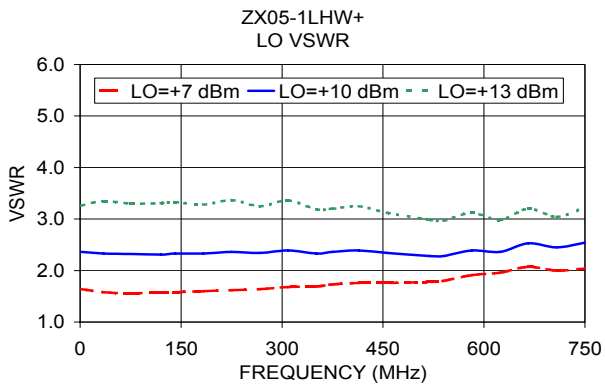
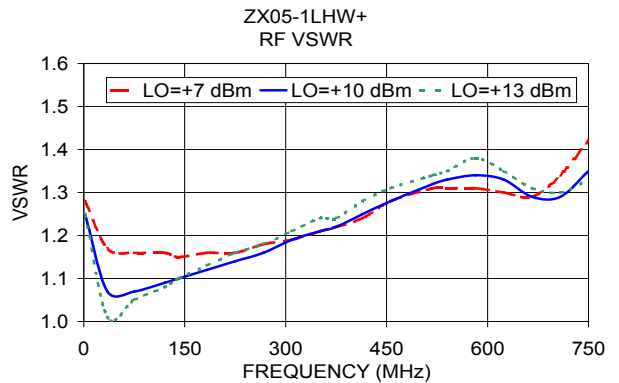
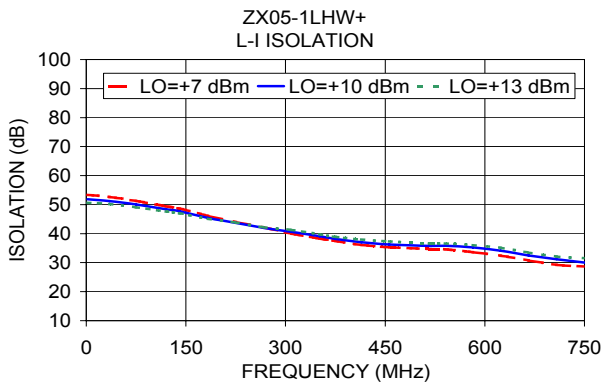
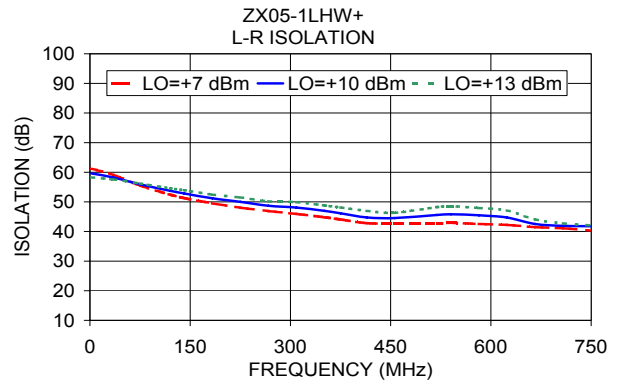
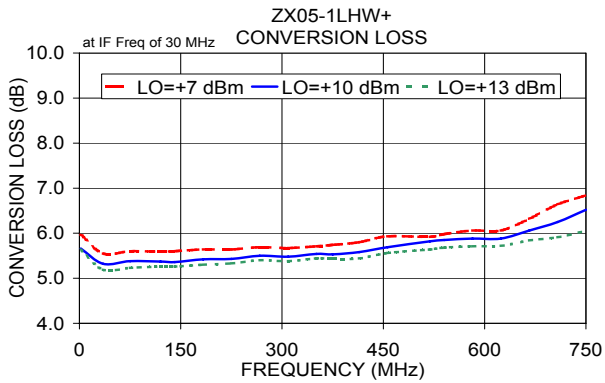
Electrical Schematic



Notes

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