

Coaxial Frequency Mixer

ZX05-25MH+

Level 13 (LO Power +13 dBm) 5 to 2500 MHz



CASE STYLE: FL905

| Connectors | Model | Price | Qty. |
|------------|--------------|-------------|--------|
| SMA | ZX05-25MH-S+ | \$39.95 ea. | (1-24) |

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

The +Suffix has been added in order to identify 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 | 200mW |
| IF Current | 40mA |

Permanent damage may occur if any of these limits are exceeded.

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 and 6,790,049

Applications

- cellular
- PCS
- instrumentation
- satellite communication

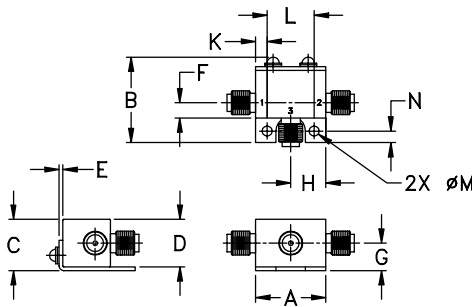
Electrical Specifications (T_{AMB}=25°C)

| FREQUENCY (MHz) | CONVERSION LOSS (dB) | LO-RF ISOLATION (dB) | | | | | | LO-IF ISOLATION (dB) | | | | | | IP3 at center band (dBm) | | | | |
|---|----------------------|----------------------|-----|------------------|-----|----|----|----------------------|----|----|----|----|----|--------------------------|----|----|----|----|
| | | Mid-Band m | | Total Range Max. | | L | | M | | U | | L | | | M | | U | |
| LO/RF f _L -f _U | IF X̄ σ Max. | 6.9 | 0.1 | 8.8 | 9.8 | 47 | 28 | 34 | 23 | 34 | 23 | 34 | 23 | 32 | 18 | 23 | 17 | 18 |

1 dB COMP.: +9 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]

Outline Drawing



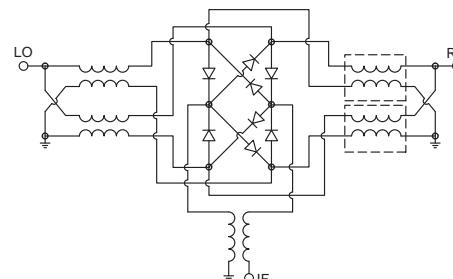
Outline Dimensions (inch/mm)

| | | | | | | | |
|-------|-------|-------|-------|------|------|-------|--|
| 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 +13dBm | LO +13dBm | LO +13dBm | LO +13dBm | LO +13dBm |
| 5.00 | 35.10 | 7.21 | 46.24 | 35.35 | 1.25 | 2.51 |
| 50.00 | 80.10 | 7.10 | 55.51 | 37.21 | 1.20 | 2.28 |
| 150.00 | 119.90 | 7.09 | 44.96 | 36.36 | 1.17 | 2.31 |
| 287.50 | 257.40 | 7.14 | 38.59 | 35.49 | 1.11 | 2.38 |
| 425.00 | 394.90 | 7.30 | 35.30 | 34.21 | 1.12 | 2.36 |
| 562.50 | 532.40 | 7.23 | 33.60 | 33.25 | 1.25 | 2.16 |
| 700.00 | 669.90 | 7.28 | 32.46 | 31.31 | 1.44 | 2.10 |
| 837.50 | 807.40 | 7.43 | 32.20 | 29.43 | 1.70 | 1.85 |
| 975.00 | 944.90 | 7.33 | 32.77 | 28.79 | 1.95 | 1.73 |
| 1112.50 | 1151.15 | 7.47 | 33.60 | 27.62 | 2.11 | 1.56 |
| 1250.00 | 1219.90 | 7.89 | 34.85 | 26.45 | 2.23 | 1.50 |
| 1375.00 | 1344.90 | 8.00 | 36.71 | 25.96 | 2.33 | 1.40 |
| 1525.00 | 1494.90 | 8.11 | 39.41 | 25.83 | 2.35 | 1.34 |
| 1675.00 | 1644.90 | 8.35 | 41.45 | 26.05 | 2.12 | 1.28 |
| 1825.00 | 1794.90 | 8.24 | 42.87 | 26.62 | 2.04 | 1.24 |
| 1975.00 | 1944.90 | 8.52 | 44.88 | 27.01 | 2.06 | 1.23 |
| 2125.00 | 2094.90 | 8.52 | 44.76 | 27.16 | 2.00 | 1.19 |
| 2275.00 | 2244.90 | 8.53 | 43.15 | 27.17 | 1.99 | 1.18 |
| 2425.00 | 2394.90 | 8.63 | 41.98 | 27.38 | 2.03 | 1.18 |
| 2500.00 | 2469.90 | 8.60 | 41.19 | 27.45 | 1.98 | 1.17 |

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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Page 1 of 2

