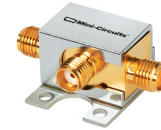


Frequency Mixer WIDE BAND

ZX05-43-S+

Level 7 (LO Power +7 dBm) 750 to 4200 MHz



Generic photo used for illustration purposes only

CASE STYLE: FL905

| Connectors | Model |
|------------|------------|
| SMA | ZX05-43-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 |

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

Coaxial Connections

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

Features

- wide bandwidth, 750 to 4200 MHz
- low conversion loss, 6.1 dB typ.
- excellent L-R isolation, 35 dB typ.
- rugged construction
- small size
- useable as up and down converter
- protected by US patents, 6,790,049 and 7,027,795

Applications

- cellular
- defense and weather radar
- defense communications
- PCN
- WCDMA
- WIFI
- blue tooth
- VSAT
- ISM

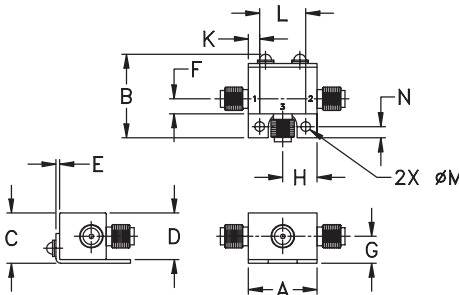
Electrical Specifications

| FREQUENCY (MHz) | CONVERSION LOSS* (dB) | LO-RF ISOLATION (dB) | | LO-IF ISOLATION (dB) | | IP3 at center band (dBm) | | | |
|----------------------|-----------------------|----------------------|----------|----------------------|------|--------------------------|------|----|----|
| | | Typ. | Min. | Typ. | Min. | | | | |
| LO/RF $f_L - f_U$ | IF | Typ. | σ | Max. | Typ. | Min. | Typ. | | |
| 750-4200 | DC-1500 | | | | | | | | |
| 750-2500 | | 6.3 | 0.1 | 8.3 | 35 | 29 | 24 | 9 | 12 |
| 2500-4200 | | 6.0 | 0.1 | 8.9 | 26 | 22 | 20 | 13 | 12 |

1 dB COMPR.: +1 dBm typ.

* Conversion loss at 30 MHz IF. σ is a measure of repeatability from unit to unit.

Outline Drawing



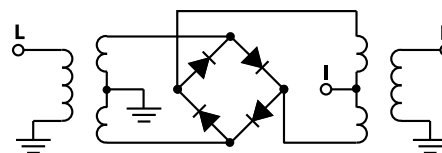
Outline Dimensions (inch/mm)

| | | | | | | |
|-------|-------|-------|-------|------|------|-------|
| 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) | |
|-----------------|----------------------|--------------------|--------------------|-------------------|-------------------|----------|
| | | | | | LO +7dBm | LO +7dBm |
| RF | LO | LO +7dBm | LO +7dBm | LO +7dBm | LO | LO +7dBm |
| 750.00 | 780.00 | 7.32 | 41.67 | 24.97 | 2.28 | 9.85 |
| 950.00 | 980.00 | 6.99 | 39.87 | 26.96 | 2.12 | 3.01 |
| 1150.00 | 1180.00 | 6.57 | 41.71 | 30.28 | 3.13 | 1.46 |
| 1350.00 | 1380.00 | 6.50 | 35.27 | 33.17 | 3.18 | 1.13 |
| 1550.00 | 1580.00 | 6.39 | 33.25 | 28.75 | 2.99 | 1.71 |
| 1750.00 | 1780.00 | 6.56 | 35.54 | 21.12 | 2.87 | 2.05 |
| 1950.00 | 1980.00 | 6.87 | 33.83 | 13.03 | 3.17 | 1.91 |
| 2150.00 | 2180.00 | 6.83 | 34.63 | 12.22 | 3.02 | 1.91 |
| 2350.00 | 2380.00 | 6.23 | 32.19 | 14.93 | 2.37 | 2.03 |
| 2550.00 | 2580.00 | 6.67 | 30.60 | 17.84 | 2.54 | 1.97 |
| 2750.00 | 2780.00 | 5.56 | 29.18 | 19.08 | 1.71 | 1.51 |
| 2950.00 | 2980.00 | 5.24 | 28.19 | 21.52 | 1.40 | 1.40 |
| 3150.00 | 3180.00 | 5.47 | 26.03 | 25.95 | 1.63 | 1.16 |
| 3350.00 | 3380.00 | 5.84 | 26.52 | 25.86 | 1.63 | 1.18 |
| 3550.00 | 3580.00 | 6.31 | 25.30 | 22.00 | 2.33 | 1.59 |
| 3750.00 | 3780.00 | 6.53 | 25.45 | 19.15 | 2.80 | 2.01 |
| 3950.00 | 3980.00 | 7.42 | 26.91 | 19.85 | 3.70 | 2.67 |
| 4150.00 | 4180.00 | 7.65 | 26.78 | 16.35 | 3.79 | 3.59 |
| 4190.00 | 4220.00 | 7.83 | 27.09 | 15.96 | 3.73 | 3.79 |
| 4210.00 | 4240.00 | 7.57 | 27.32 | 15.67 | 3.69 | 3.84 |

Electrical Schematic



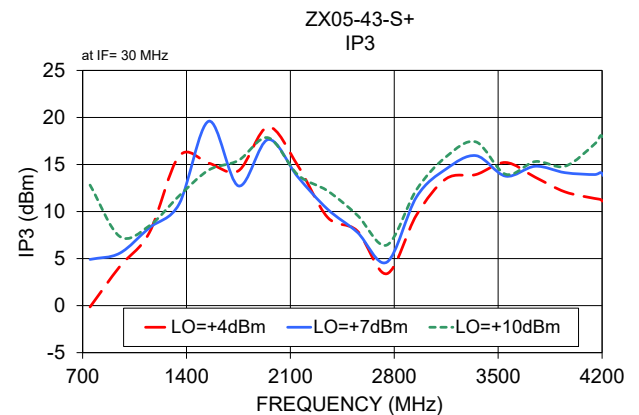
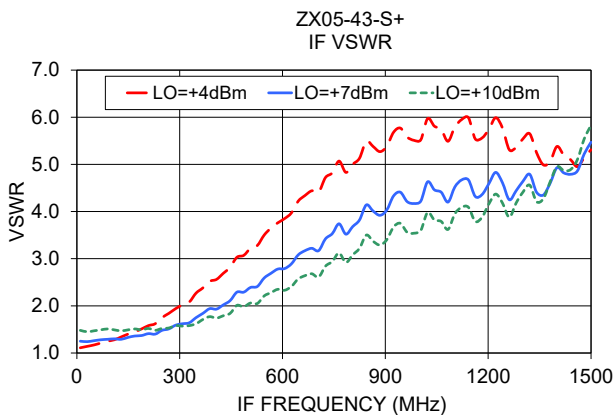
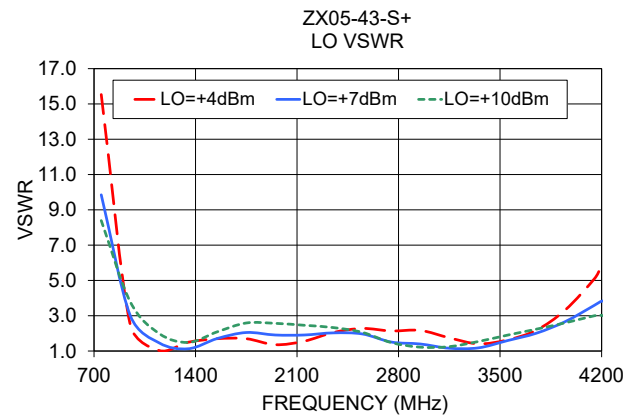
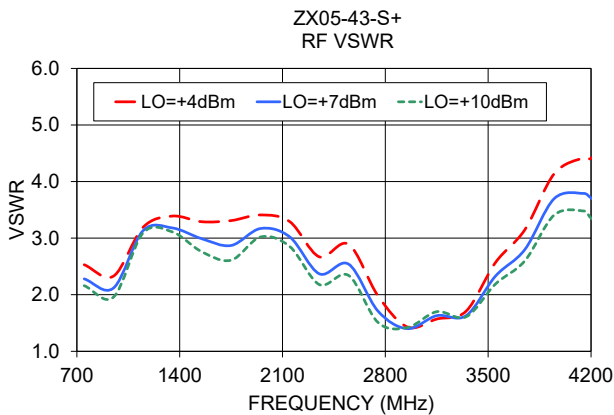
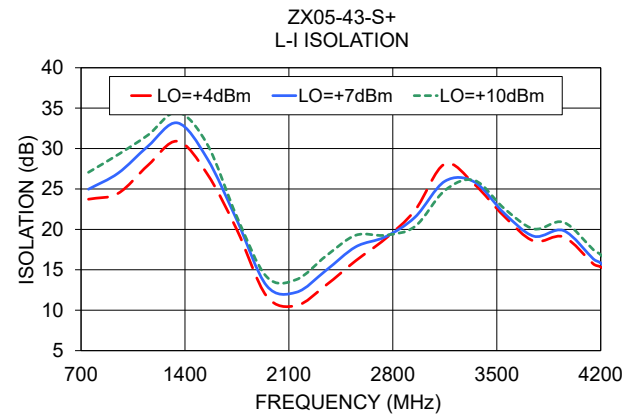
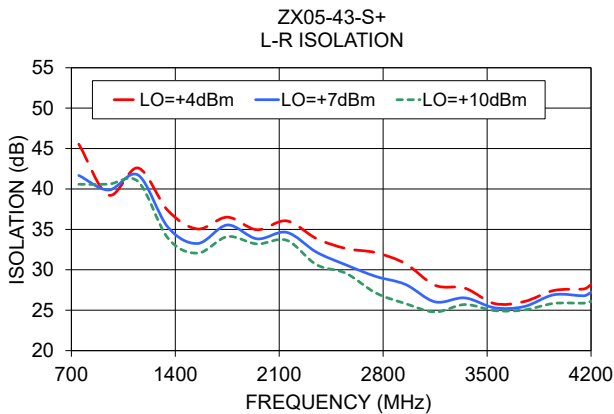
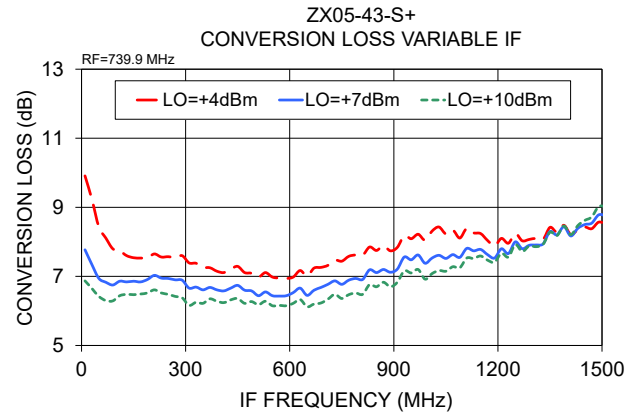
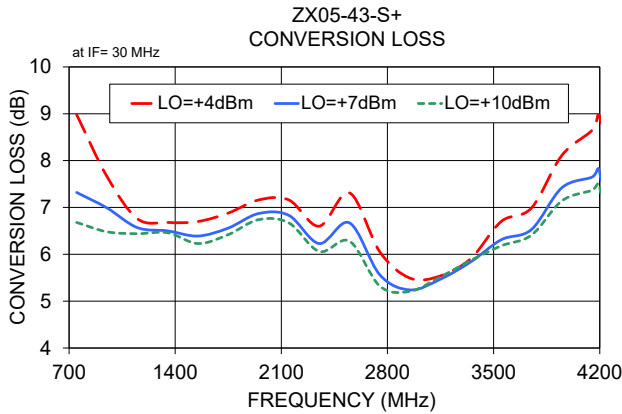
Notes

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Performance Charts

ZX05-43-S+



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