

Frequency Mixer WIDE BAND

ZX05-14+

Level 7 (LO Power +7 dBm) 3700 to 10000 MHz



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, 3700 to 10000 MHz
- low conversion loss, 6.7 dB typ.
- high L-R isolation, 38 dB typ.
- excellent IF BW, DC to 4000 MHz
- rugged construction
- small size
- useable as up and down converter
- protected by US patents 6,790,049; 7,027,795

Applications

- satellite up and down converters
- defense radar and communications
- line of sight links
- federal fixed service
- WIFI
- blue tooth
- VSAT
- ISM

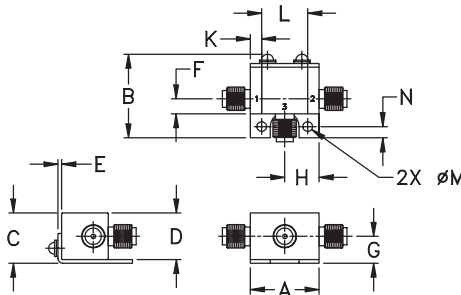
CASE STYLE: FL905

| | |
|------------|------------|
| Connectors | Model |
| SMA | ZX05-14-S+ |

+RoHS Compliant

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 |
| .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 |

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. | | |
| 3700-10000 | DC-4000 | | | | | | | | |
| 3700-6200 | | 6.7 | 0.3 | 8.0 | 40 | 33 | 16 | 10 | 14 |
| 6200-10000 | | 6.7 | 0.3 | 10 | 35 | 25 | 17 | 9 | 11 |

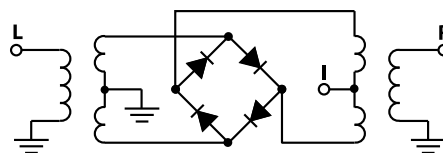
1 dB COMPR.: +1 dBm typ.

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

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 +7dBm | LO +7dBm |
| 3700.10 | 3730.10 | 6.58 | 51.26 | 20.04 | 2.93 | 7.34 |
| 4100.10 | 4130.10 | 6.38 | 40.67 | 18.99 | 2.87 | 4.92 |
| 4500.10 | 4530.10 | 6.22 | 40.61 | 15.96 | 2.46 | 3.13 |
| 4900.10 | 4930.10 | 6.05 | 38.79 | 14.00 | 2.37 | 2.09 |
| 5300.10 | 5330.10 | 6.46 | 40.71 | 12.81 | 3.15 | 1.49 |
| 5700.10 | 5730.10 | 6.57 | 37.62 | 13.21 | 3.25 | 1.89 |
| 6100.10 | 6130.10 | 6.30 | 40.74 | 14.07 | 2.93 | 2.61 |
| 6200.10 | 6230.10 | 6.35 | 39.60 | 14.24 | 2.84 | 2.82 |
| 6600.10 | 6630.10 | 6.30 | 38.69 | 14.80 | 2.67 | 3.44 |
| 7000.10 | 7030.10 | 6.34 | 37.07 | 15.30 | 2.28 | 3.48 |
| 7400.10 | 7430.10 | 6.22 | 39.52 | 14.92 | 2.07 | 3.29 |
| 7800.10 | 7830.10 | 6.02 | 36.84 | 13.50 | 2.06 | 2.66 |
| 8200.10 | 8230.10 | 6.29 | 31.74 | 11.66 | 2.17 | 1.74 |
| 8600.10 | 8630.10 | 6.54 | 38.46 | 14.46 | 2.47 | 1.46 |
| 9000.10 | 9030.10 | 7.07 | 37.71 | 20.29 | 3.00 | 1.81 |
| 9400.10 | 9430.10 | 7.75 | 30.76 | 22.38 | 3.66 | 2.18 |
| 9700.10 | 9730.10 | 7.85 | 28.88 | 19.34 | 4.14 | 2.36 |
| 9800.10 | 9830.10 | 8.00 | 28.40 | 18.54 | 4.22 | 2.35 |
| 9900.10 | 9930.10 | 8.09 | 28.25 | 18.00 | 4.38 | 2.32 |
| 10000.10 | 10030.10 | 8.15 | 28.31 | 17.54 | 4.43 | 2.26 |

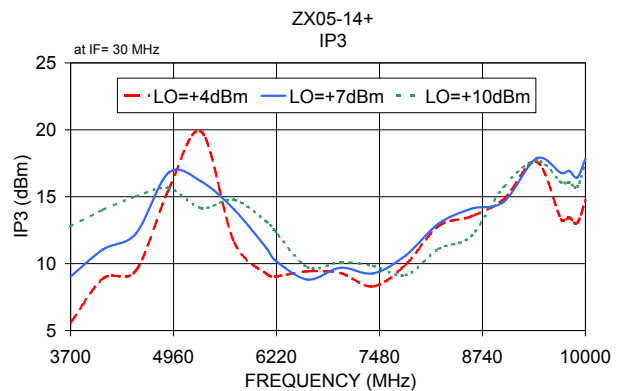
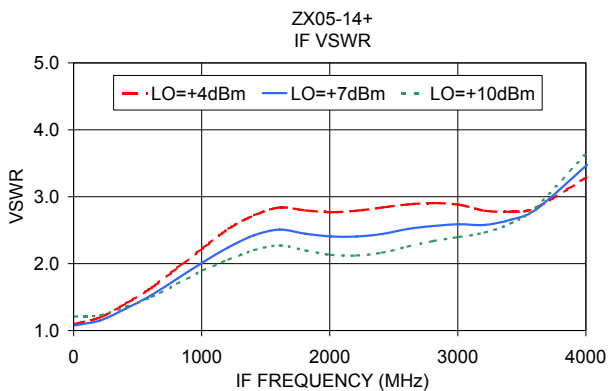
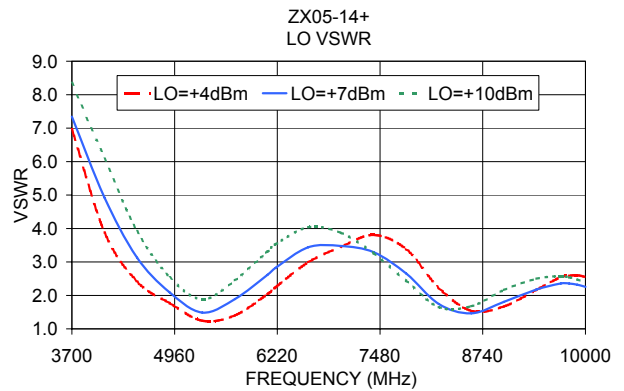
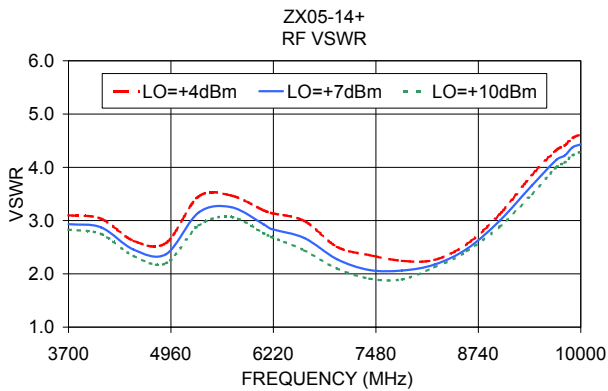
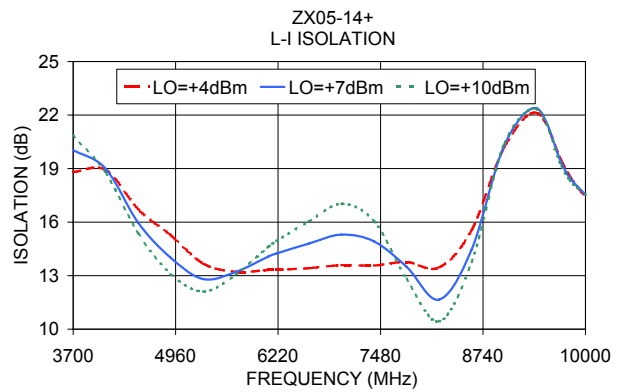
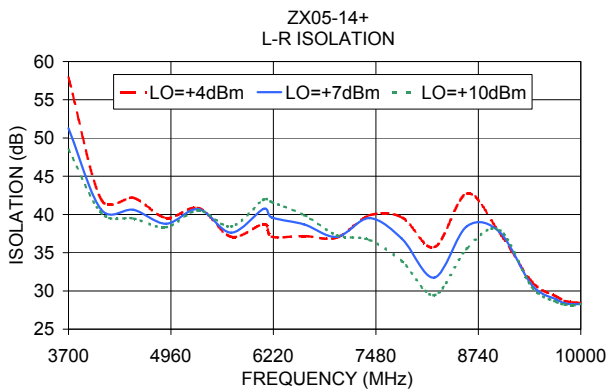
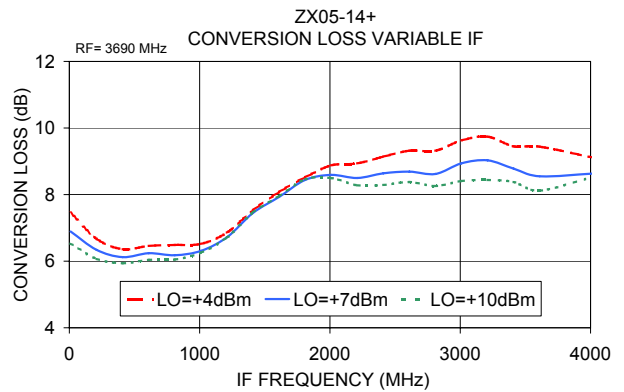
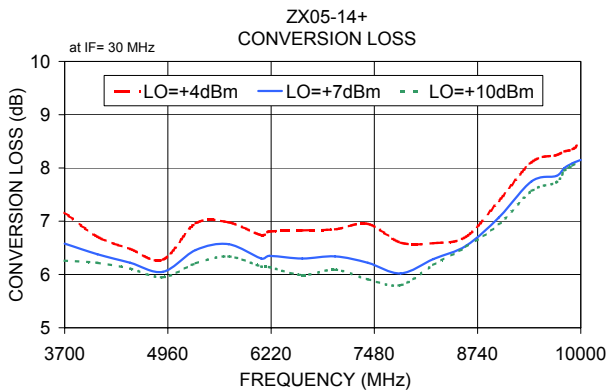
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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