

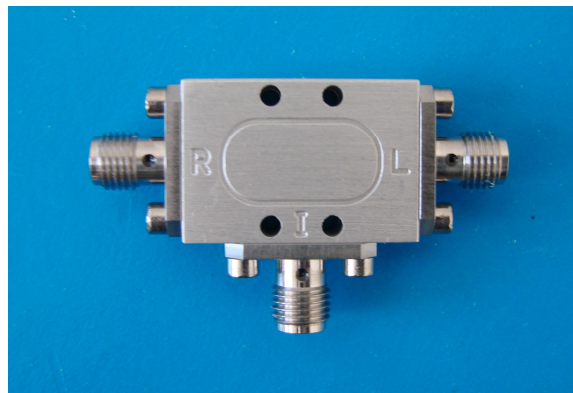
## Level 13

## 6-14GHz Frequency Mixer

### Features

- LO/RF: 6–14GHz
- IF: DC–5GHz
- LO Level: +13dBm
- Conversion Loss: 6.5dB typ.
- RF Input: Up to +9.5dBm
- Input IP3: +16dBm
- SMA Female All Ports

### Picture



### Description

GXR-17 is a passive double balanced mixer with 6 to 14GHz at RF/LO port and DC to 5GHz at IF port. The mixer operates with LO drive level range from +9dBm to +16dBm.

### Electrical Specifications @ +25 °C, IF=100MHz, LO=+13dBm, 50 Ω

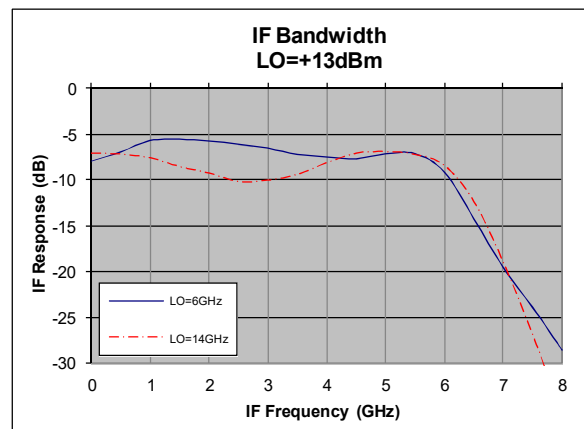
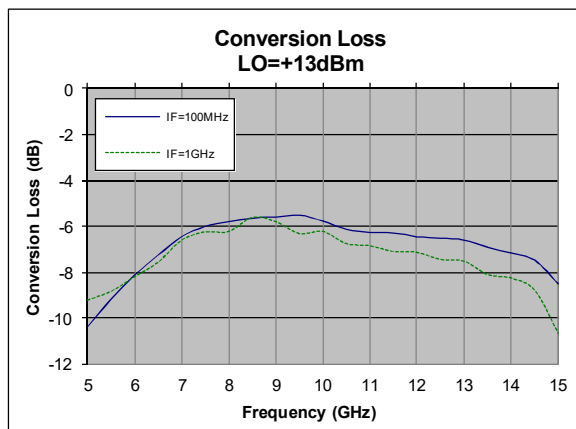
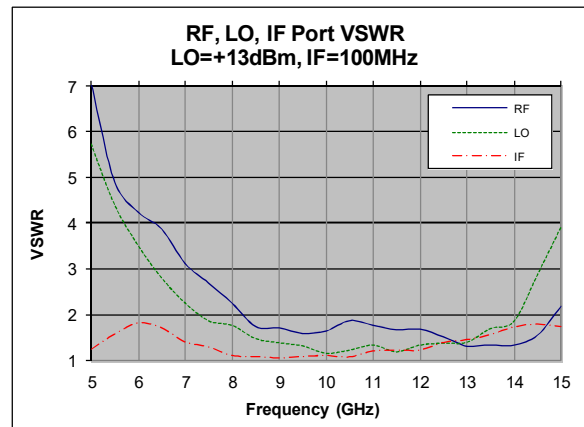
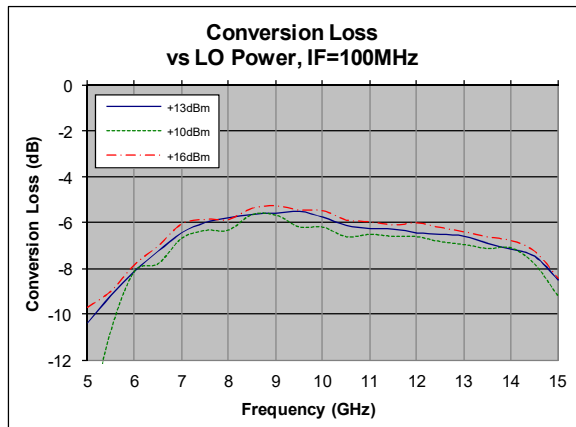
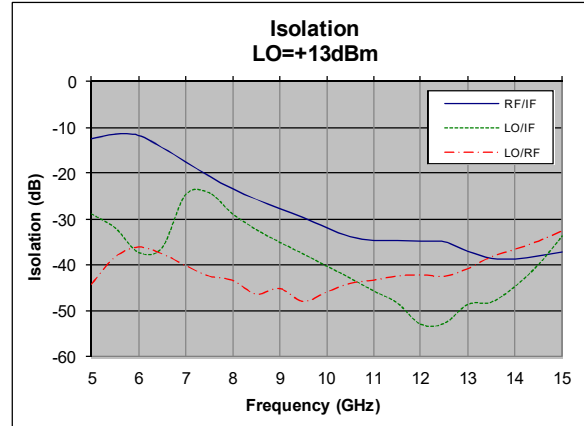
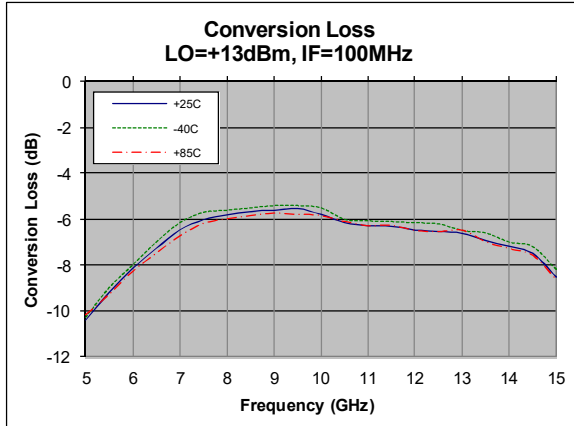
| Parameter                 |                | Unit | Minimum | Typical | Maximum |
|---------------------------|----------------|------|---------|---------|---------|
| Frequency Range           | LO/RF          | GHz  | 6       |         | 14      |
|                           | IF             | GHz  | DC      |         | 5       |
| Conversion Loss           | LO/RF: 8-12GHz | dB   |         | 6.5     | 8       |
|                           | LO/RF: 6-14GHz | dB   |         | 7       | 10      |
| LO-RF Isolation           | LO/RF: 8-12GHz | dB   | 37      | 43      |         |
|                           | LO/RF: 6-14GHz | dB   | 34      | 43      |         |
| LO-IF Isolation           | LO/RF: 8-12GHz | dB   | 28      | 37      |         |
|                           | LO/RF: 6-14GHz | dB   | 28      | 37      |         |
| RF-IF Isolation           | LO/RF: 8-12GHz | dB   | 15      | 22      |         |
|                           | LO/RF: 6-14GHz | dB   | 10      | 22      |         |
| RF Input P <sub>1dB</sub> | LO/RF: 8-12GHz | dBm  |         | +9.5    |         |
|                           | LO/RF: 6-14GHz | dBm  |         | +9.5    |         |
| Input IP3                 | LO/RF: 8-12GHz | dBm  |         | +16     |         |
|                           | LO/RF: 6-14GHz | dBm  |         | +16     |         |

Unless otherwise noted, all measurements performed as a downconverter.

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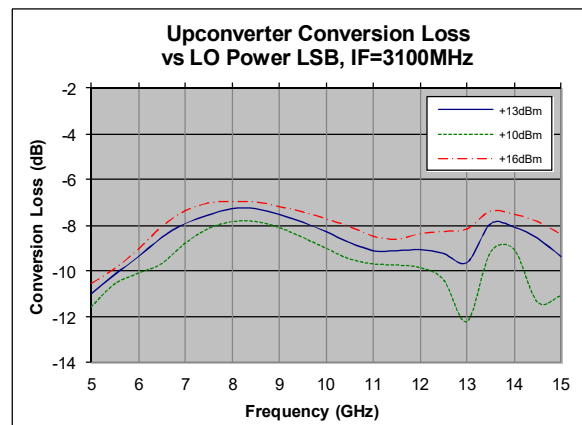
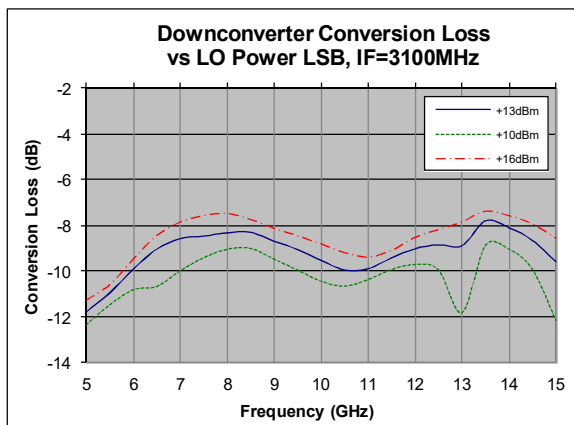
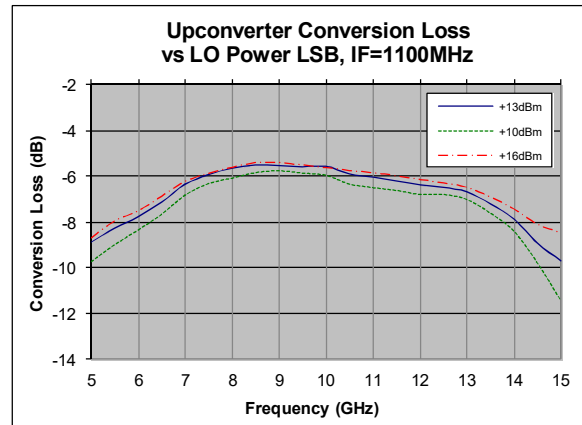
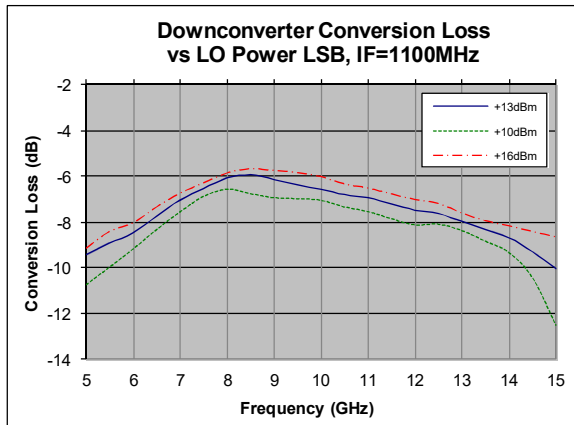
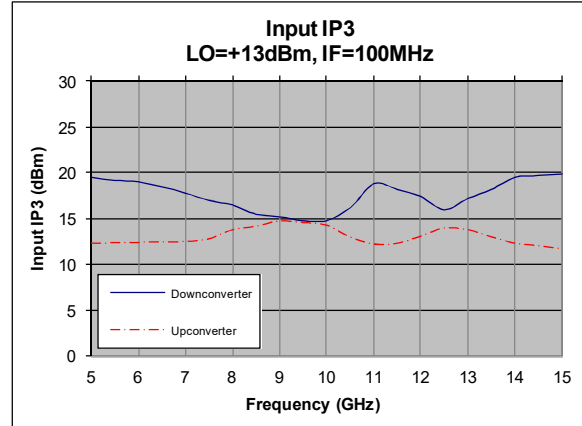
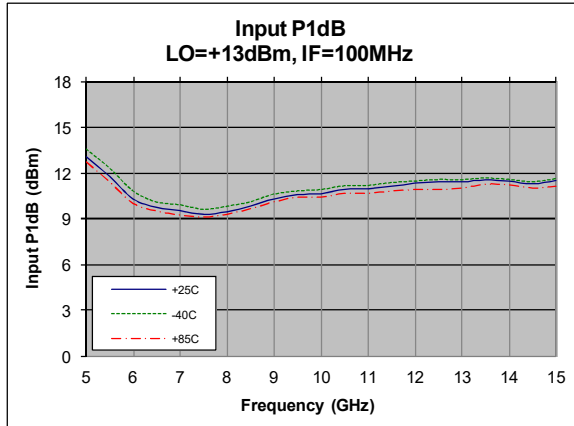
### Typical Performance



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### Typical Performance



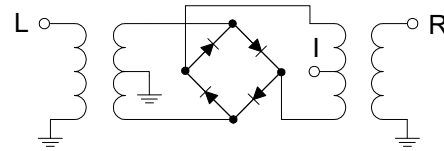
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## 6-14GHz Frequency Mixer

### Absolute Maximum Ratings

| Parameter             | Absolute Maximum  |
|-----------------------|-------------------|
| RF Power              | +25dBm            |
| LO Driver             | +25dBm            |
| Operating Temperature | -40 °C to +85 °C  |
| Storage Temperature   | -65 °C to +150 °C |

### Schematic



### Outline

