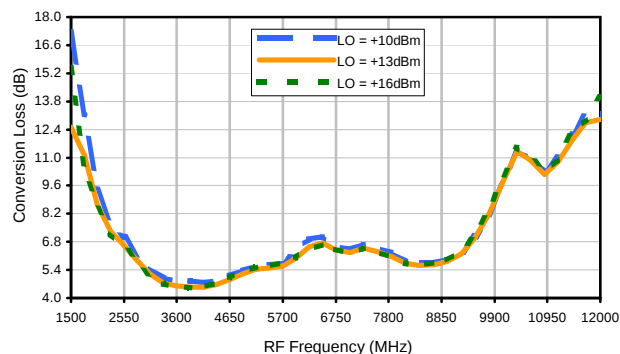


# Frequency Mixer

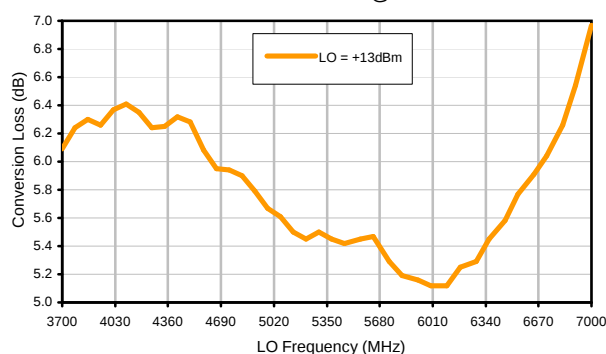
# ZMX-7GMHR

## Typical Performance Curves

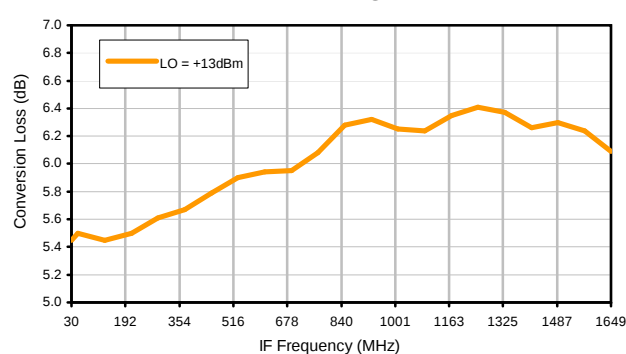
Conversion Loss @ IF=30MHz



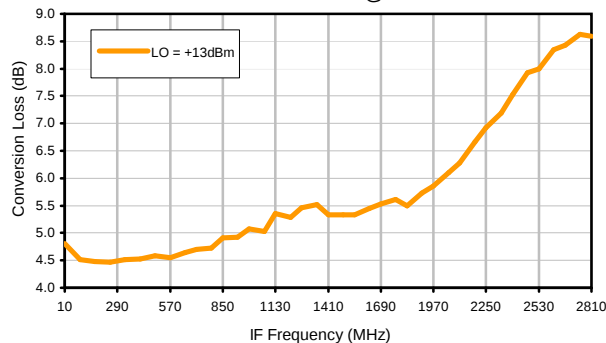
Conversion Loss vs. LO @ RF=5350MHz



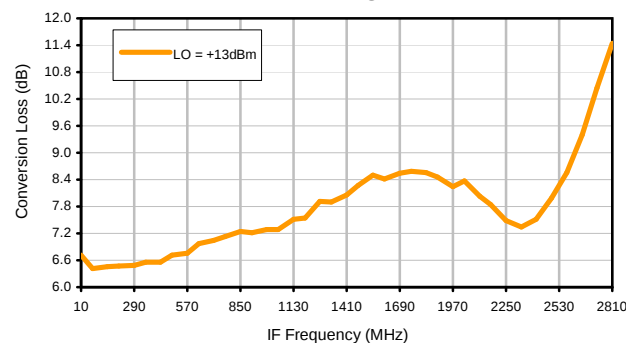
Conversion Loss vs. IF @ RF=5350MHz



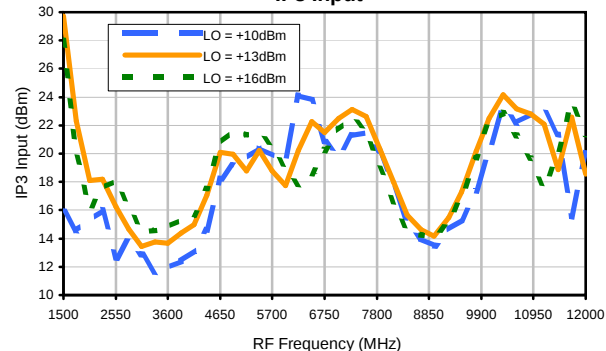
Conversion Loss vs. IF @ RF=3690MHz



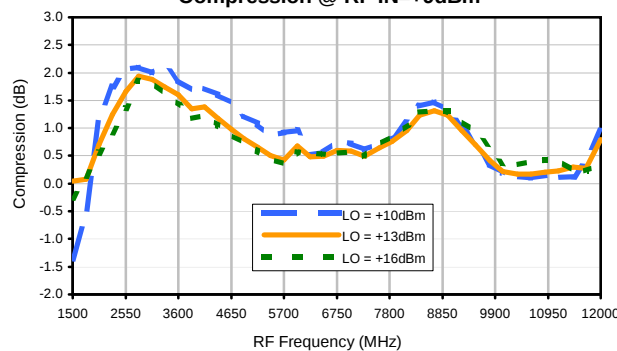
Conversion Loss vs. IF @ RF=7010.1MHz



IP3 Input

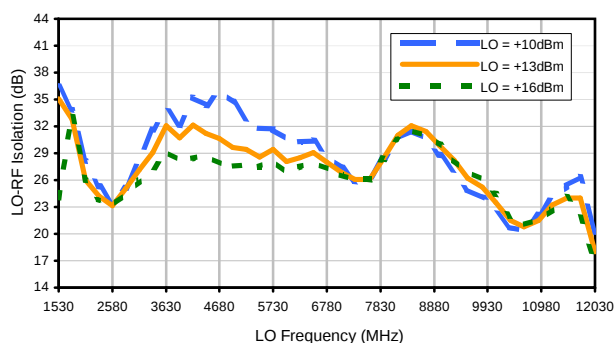


Compression @ RF IN=+9dBm

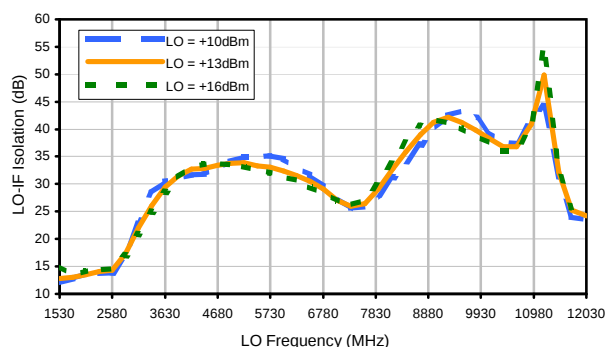


## Typical Performance Curves

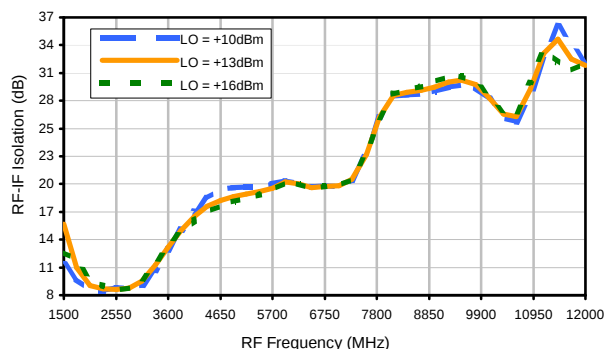
LO-RF Isolation



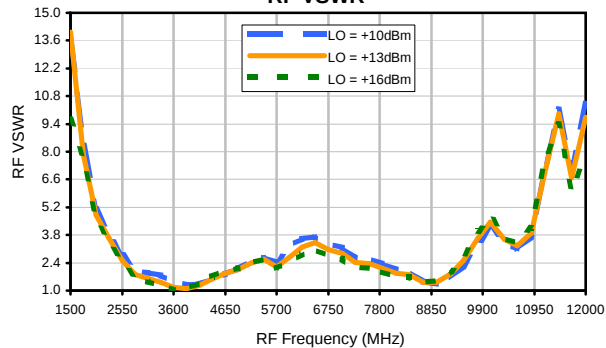
LO-IF Isolation



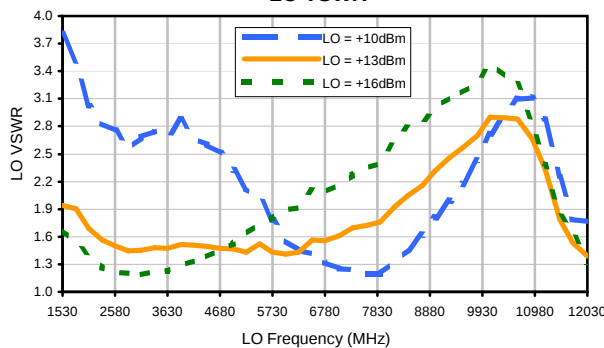
RF-IF Isolation



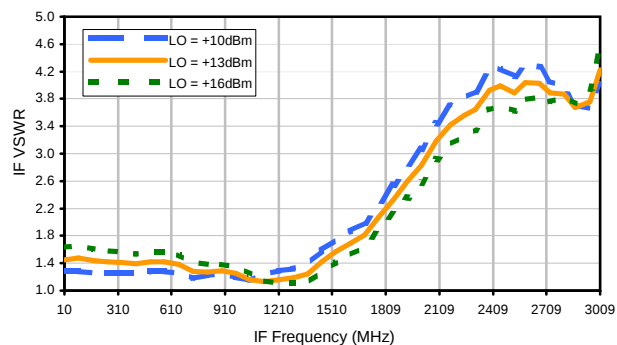
RF VSWR



LO VSWR



IF VSWR



# Frequency Mixer

# ZMX-7GMHR

## Harmonics Tables

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 9   | 22  | 13  | 31  | --- | --- | --- | --- | --- | --- |
| 1  | -      | 13     | +0  | 46  | 34  | 42  | 41  | --- | --- | --- | --- | --- |
| 2  | 76     | 76     | 71  | 52  | 68  | 64  | 54  | 69  | --- | --- | --- | --- |
| 3  | >90    | >78    | >78 | >78 | 59  | >78 | >78 | >78 | 72  | --- | --- | --- |
| 4  | >90    | >78    | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 | --- | --- |
| 5  | ---    | ---    | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 | --- |
| 6  | ---    | ---    | --- | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 |
| 7  | ---    | ---    | --- | --- | >78 | >78 | >78 | >78 | >78 | >78 | >78 | >78 |
| 8  | ---    | ---    | --- | --- | --- | >78 | >78 | >78 | >78 | >78 | >78 | >78 |
| 9  | ---    | ---    | --- | --- | --- | --- | >78 | >78 | >78 | >78 | >78 | >78 |
| 10 | ---    | ---    | --- | --- | --- | --- | --- | >78 | >78 | >78 | >78 | >78 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions: RF IN: 5350 MHz; -6.00 dBm.  
LO IN: 5380 MHz; +13.00 dBm  
IF OUT: 30 MHz; -11.51 dBm

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 19  | 33  | 24  | 45  | --- | --- | --- | --- | --- | --- |
| 1  | -      | 13     | +0  | 43  | 35  | 44  | 45  | --- | --- | --- | --- | --- |
| 2  | 56     | 61     | 63  | 42  | 59  | 55  | 46  | 59  | --- | --- | --- | --- |
| 3  | 77     | 60     | 60  | 61  | 40  | 64  | 64  | 62  | 58  | --- | --- | --- |
| 4  | >90    | 84     | 88  | >88 | 82  | 63  | 86  | 72  | 66  | 79  | --- | --- |
| 5  | ---    | ---    | 83  | 86  | 86  | 86  | 60  | 81  | 86  | 83  | 72  | --- |
| 6  | ---    | ---    | --- | >88 | >88 | >88 | >88 | 78  | >88 | >88 | 86  | >88 |
| 7  | ---    | ---    | --- | --- | >88 | >88 | >88 | >88 | 73  | >88 | >88 | >88 |
| 8  | ---    | ---    | --- | --- | --- | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 9  | ---    | ---    | --- | --- | --- | --- | >88 | >88 | >88 | >88 | 84  | >88 |
| 10 | ---    | ---    | --- | --- | --- | --- | --- | >88 | >88 | >88 | >88 | >88 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions: RF IN: 5350 MHz; 4.00 dBm.  
LO IN: 5380 MHz; +13.00 dBm  
IF OUT: 30 MHz; -1.74 dBm

- Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.  
2. + entry denotes harmonics are in (dBc) above IF OUTPUT.  
3. RF Cal represent the Harmonics level of the RF input signal to the mixer.

REV. X3  
ZMX-7GMHR  
101011  
Page 3 of 3

