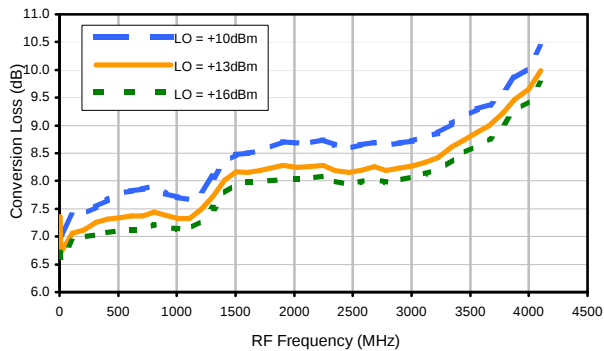


# Frequency Mixer

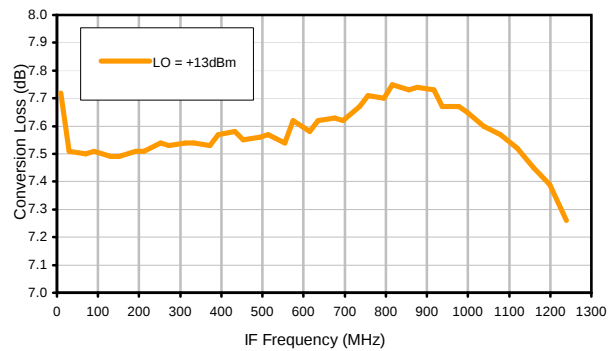
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## Typical Performance Curves

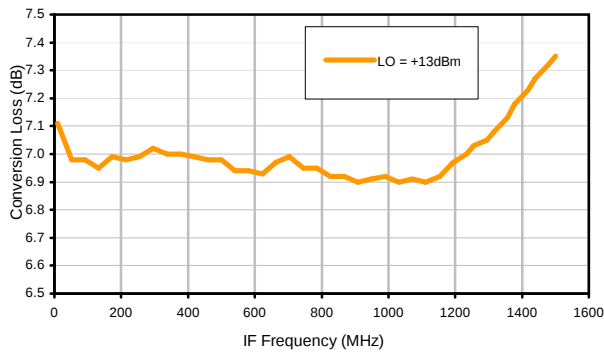
Conversion Loss @ IF=30MHz



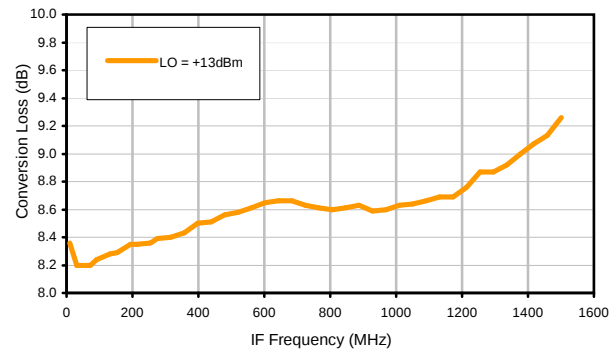
Conversion Loss vs. IF @ RF=1250MHz



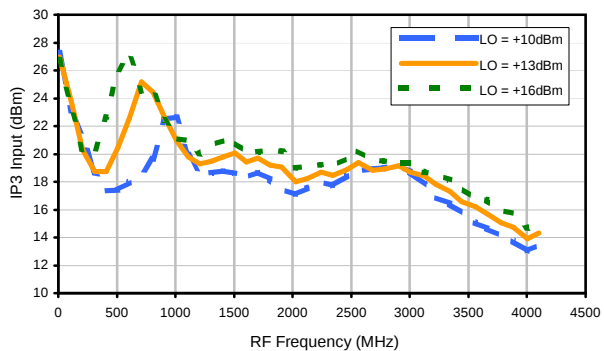
Conversion Loss vs. IF @ RF=10.1MHz



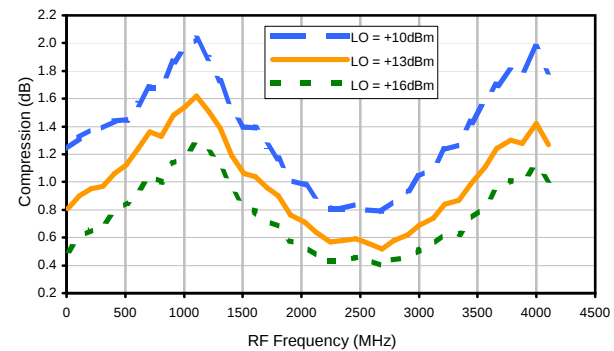
Conversion Loss vs. IF @ RF=2500.1MHz



IP3 Input



Compression @ RF IN=+9dBm



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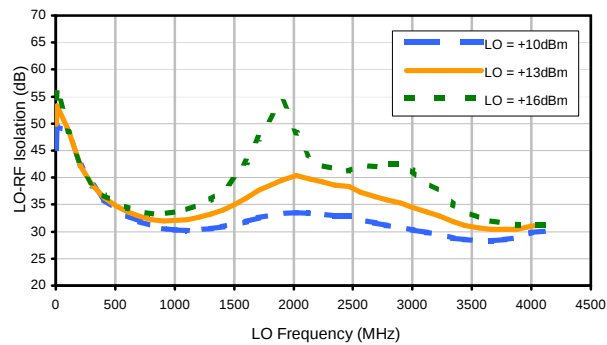


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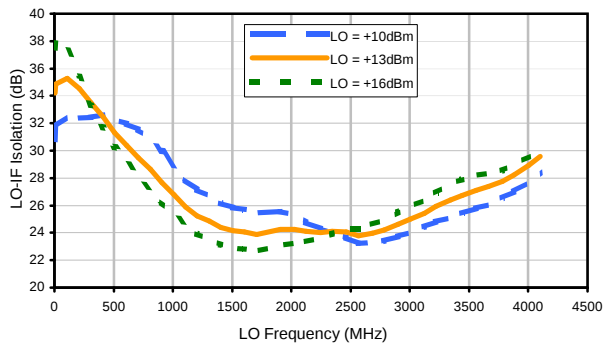


## Typical Performance Curves

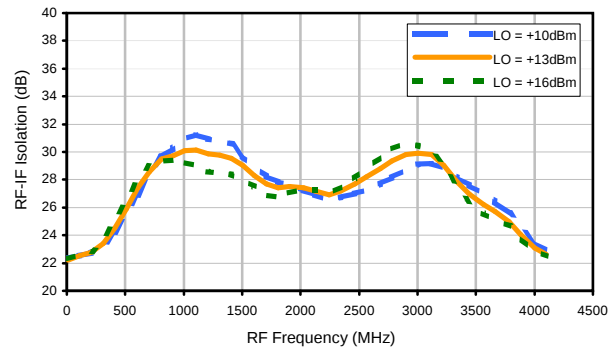
LO-RF Isolation



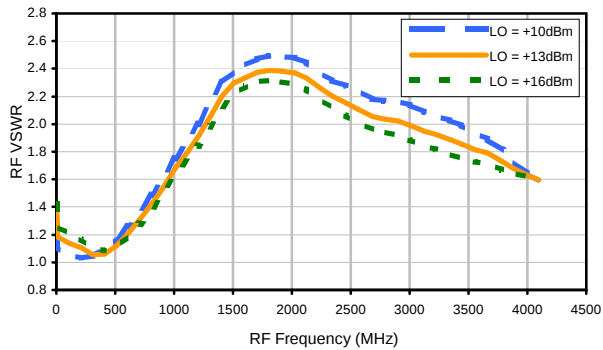
LO-IF Isolation



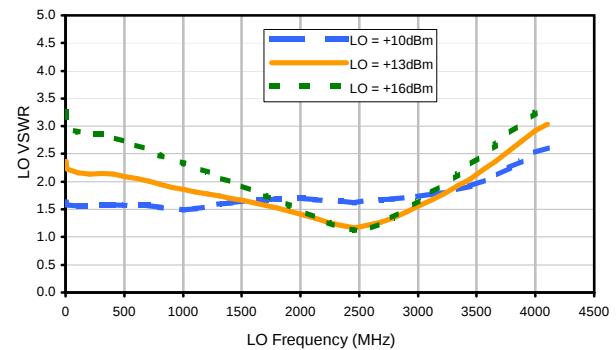
RF-IF Isolation



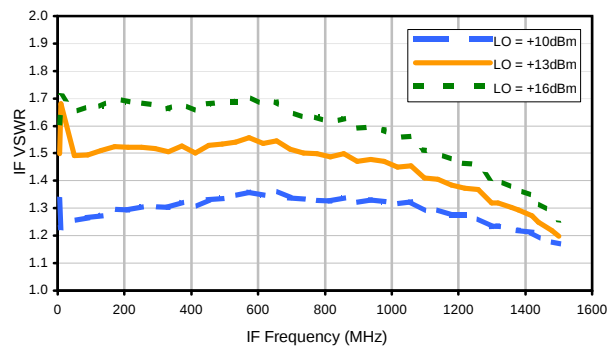
RF VSWR



LO VSWR



IF VSWR



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## Harmonics Tables

RF HARMONICS ORDER

|        | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|--------|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0      | -      | -      | +2  | 12  | 19  | 21  | 21  | 28  | 18  | 40  | 35  | 47  |
| 1      | -      | 24     | +0  | 32  | 13  | 38  | 20  | 42  | 30  | 39  | 38  | 39  |
| 2      | 86     | 52     | 55  | 50  | 57  | 49  | 54  | 61  | 61  | 57  | 48  | 58  |
| 3      | >100   | 72     | 55  | 70  | 58  | 71  | 58  | 74  | 63  | 72  | 64  | 77  |
| 4      | >100   | >86    | >86 | 86  | >86 | 82  | >86 | 80  | >86 | >86 | >86 | 85  |
| 5      | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| 6      | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| 7      | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| 8      | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| 9      | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| 10     | >100   | >86    | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 | >86 |
| RF CAL | 0      | 1      | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |     |

### LO HARMONICS ORDER

Test conditions:

RF IN: 1250.1 MHz; -6.00 dBm.  
LO IN: 1280.01 MHz; +13.00 dBm  
IF OUT: 29.91 MHz; -13.56 dBm

RF HARMONICS ORDER

|        | (-dBm) | (-dBc) |     |     |    |    |    |    |     |     |    |    |
|--------|--------|--------|-----|-----|----|----|----|----|-----|-----|----|----|
| 0      | -      | -      | 7   | 22  | 31 | 34 | 33 | 45 | 32  | 61  | 54 | 67 |
| 1      | -      | 23     | +0  | 31  | 14 | 39 | 21 | 45 | 32  | 45  | 43 | 49 |
| 2      | 70     | 45     | 46  | 54  | 44 | 45 | 43 | 51 | 51  | 64  | 42 | 55 |
| 3      | >100   | 49     | 36  | 50  | 41 | 59 | 40 | 56 | 51  | 58  | 70 | 55 |
| 4      | >100   | 49     | 66  | 52  | 60 | 53 | 63 | 53 | 63  | 60  | 65 | 65 |
| 5      | >100   | 54     | 49  | 62  | 54 | 68 | 51 | 59 | 53  | 64  | 59 | 59 |
| 6      | 87     | 64     | 66  | 65  | 70 | 83 | 77 | 76 | 81  | 68  | 72 | 67 |
| 7      | >100   | 79     | 68  | 68  | 70 | 73 | 71 | 69 | 73  | 76  | 66 | 73 |
| 8      | >100   | 95     | 80  | 77  | 80 | 74 | 86 | 79 | >96 | 72  | 89 | 72 |
| 9      | >100   | 88     | >96 | 83  | 80 | 86 | 82 | 84 | 85  | 79  | 76 | 76 |
| 10     | >100   | 96     | 92  | >96 | 89 | 92 | 95 | 90 | 90  | >96 | 89 | 83 |
| RF CAL | 0      | 1      | 2   | 3   | 4  | 5  | 6  | 7  | 8   | 9   | 10 |    |

### LO HARMONICS ORDER

Test conditions:

RF IN: 1250.1 MHz; 4.00 dBm.  
LO IN: 1280.01 MHz; +13.00 dBm  
IF OUT: 29.91 MHz; -3.8 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.

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