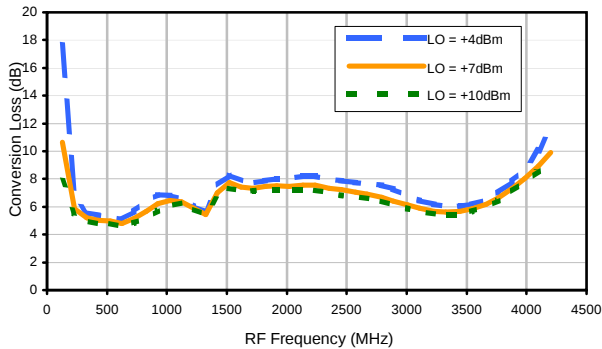


# Frequency Mixer

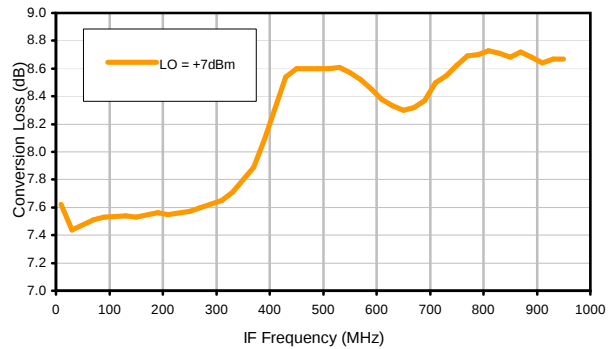
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## Typical Performance Curves

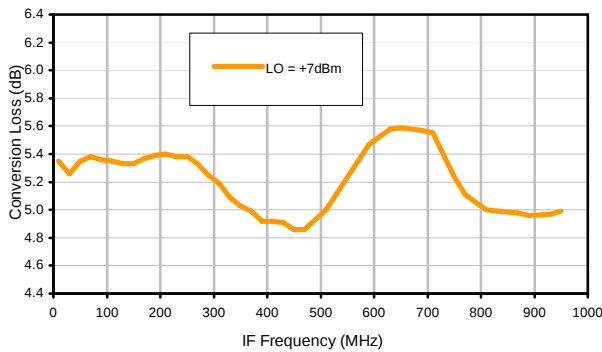
Conversion Loss @ IF=30MHz



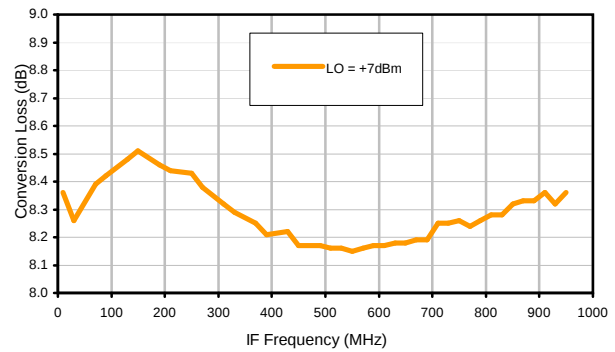
Conversion Loss vs. IF @ RF=2000.1MHz



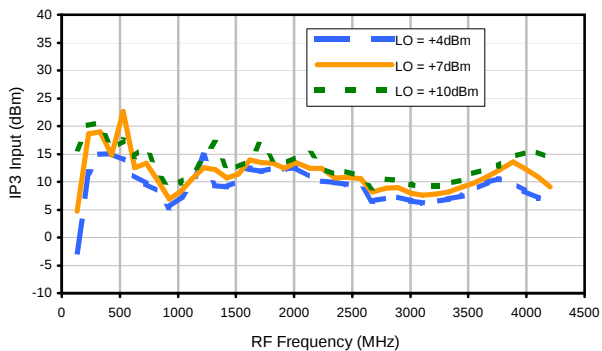
Conversion Loss vs. IF @ RF=300.1MHz



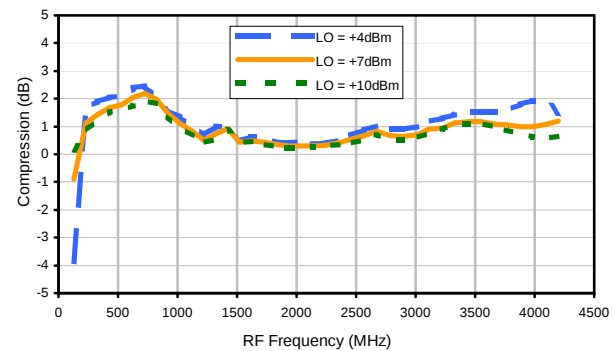
Conversion Loss vs. IF @ RF=4000.1MHz



IP3 Input



Compression @ RF IN=+1dBm



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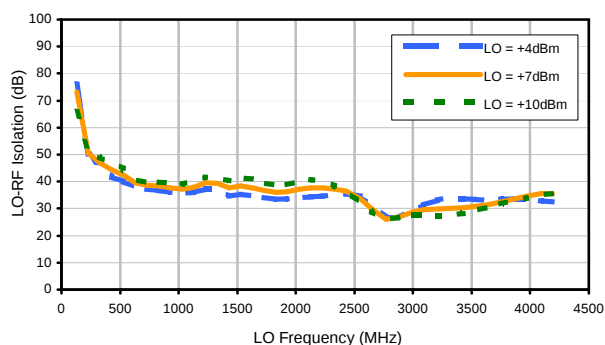


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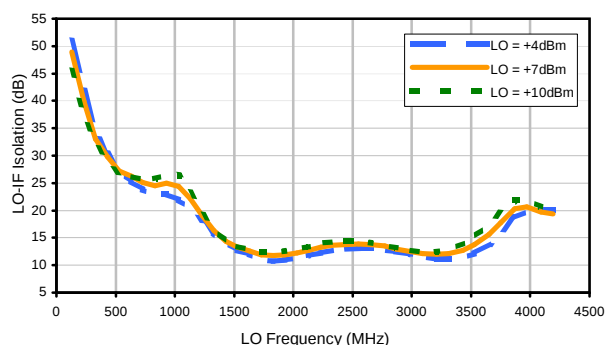


## Typical Performance Curves

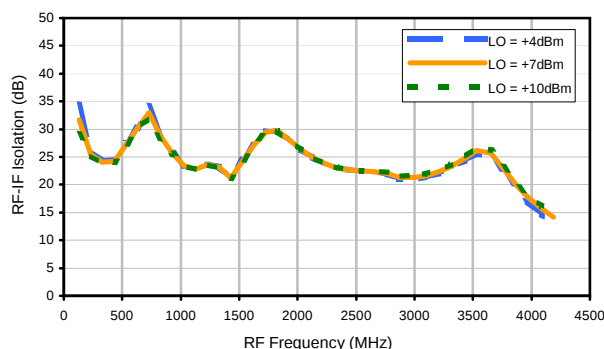
LO-RF Isolation



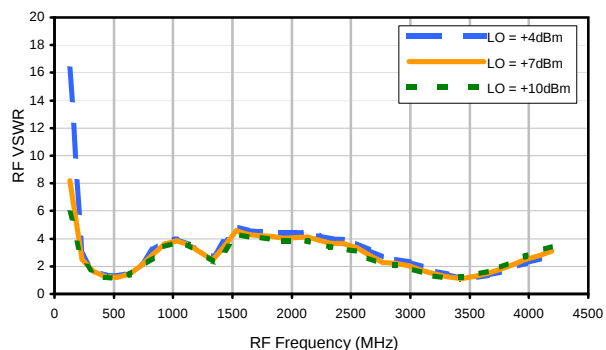
LO-IF Isolation



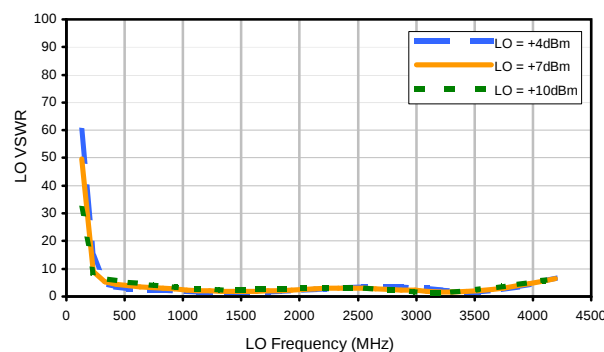
RF-IF Isolation



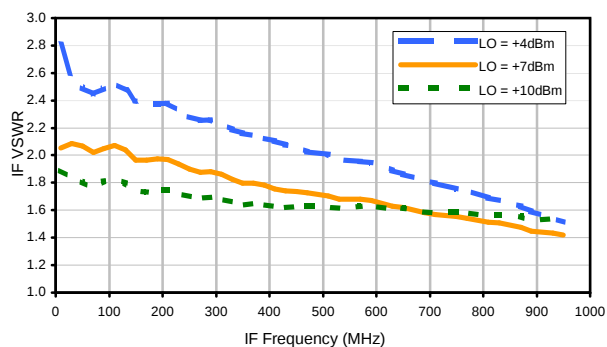
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | +16 | 20  | 5   | 34  | 17  | 38  | 37  | 48  | 34  | 52  |
| 1  | -      | 17     | +0  | 42  | 26  | 48  | 33  | 47  | 36  | 52  | 48  | 67  |
| 2  | >100   | 58     | 51  | 51  | 49  | 63  | 52  | 64  | 58  | 78  | 65  | 76  |
| 3  | >100   | 74     | 65  | >79 | 64  | >79 | 71  | >79 | 72  | >79 | 68  | >79 |
| 4  | 92     | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 5  | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 6  | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 7  | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 8  | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 9  | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 10 | >100   | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions: RF IN: 2150.1 MHz; -14.00 dBm.  
LO IN: 2180.01 MHz; +7.00 dBm  
IF OUT: 29.91 MHz; -21.37 dBm

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | +6  | 31  | 16  | 44  | 29  | 50  | 48  | 71  | 47  | 65  |
| 1  | -      | 17     | +0  | 43  | 25  | 48  | 34  | 51  | 41  | 58  | 57  | 82  |
| 2  | 79     | 49     | 41  | 42  | 40  | 54  | 44  | 59  | 49  | 68  | 66  | 76  |
| 3  | >100   | 54     | 46  | 69  | 43  | 68  | 56  | 67  | 53  | 76  | 54  | 73  |
| 4  | 79     | 75     | 72  | 68  | 67  | 64  | 65  | 69  | 65  | 66  | 76  | 79  |
| 5  | >100   | >89    | 88  | 80  | 69  | 81  | 61  | 88  | 69  | 78  | 69  | 77  |
| 6  | >100   | >89    | >89 | 89  | >89 | >89 | >89 | 76  | 85  | 80  | 83  | 78  |
| 7  | >100   | >89    | >89 | >89 | >89 | >89 | >89 | >89 | 79  | >89 | 84  | 89  |
| 8  | >100   | >89    | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 |
| 9  | >100   | >89    | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 |
| 10 | >100   | >89    | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 | >89 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions: RF IN: 2150.1 MHz; -4.00 dBm.  
LO IN: 2180.01 MHz; +7.00 dBm  
IF OUT: 29.91 MHz; -11.35 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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