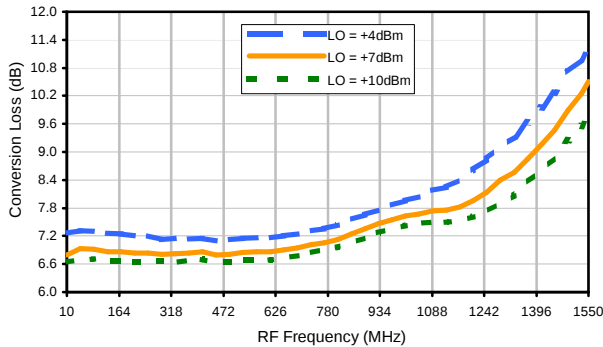


# Frequency Mixer

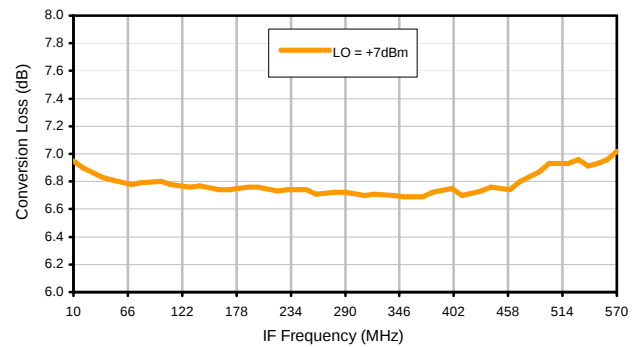
LRMS-ED6331

## Typical Performance Curves

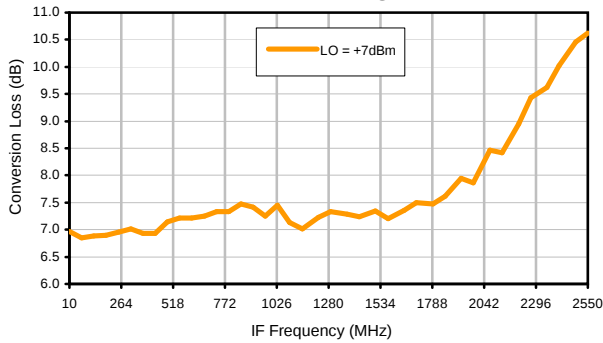
Conversion Loss @ IF=30MHz



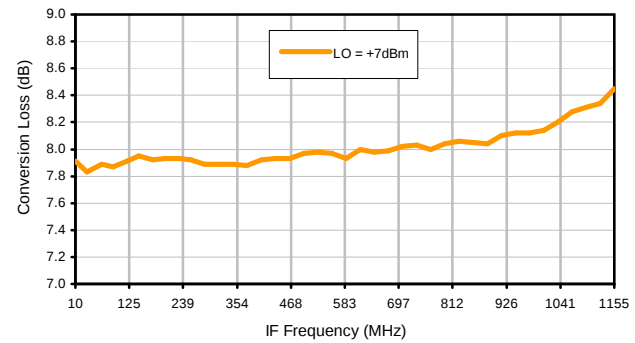
Conversion Loss vs. IF @ RF=590.1MHz



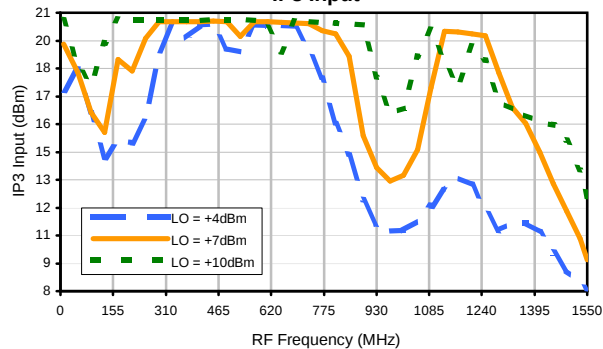
Conversion Loss vs. IF @ RF=10MHz



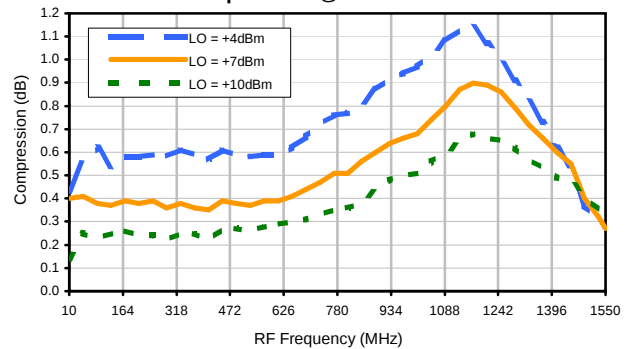
Conversion Loss vs. IF @ RF=1165.1MHz



IP3 Input

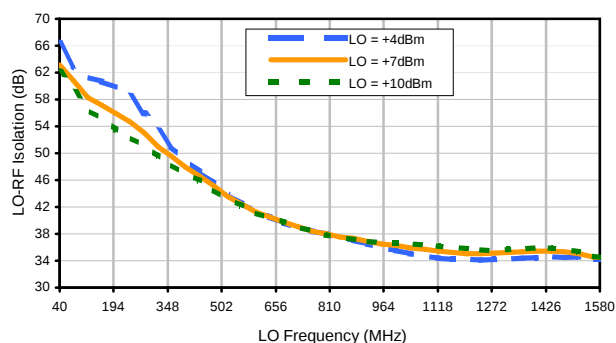


Compression @ RF IN=+1dBm

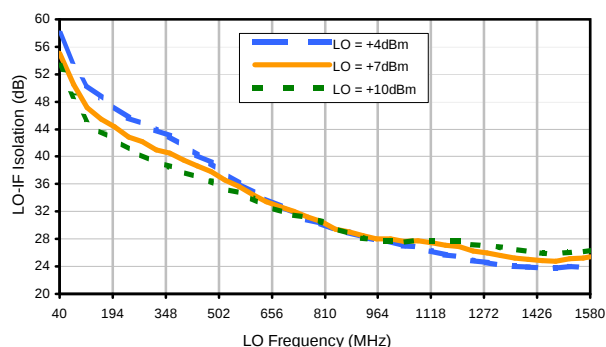


## Typical Performance Curves

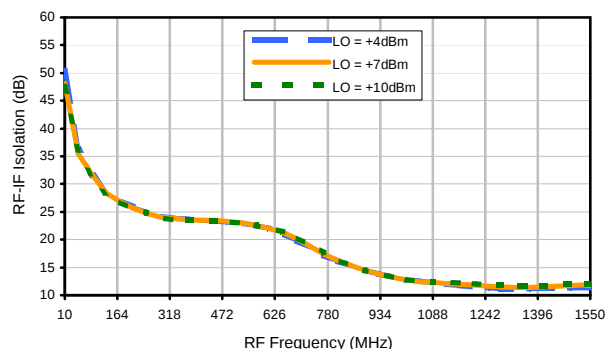
LO-RF Isolation



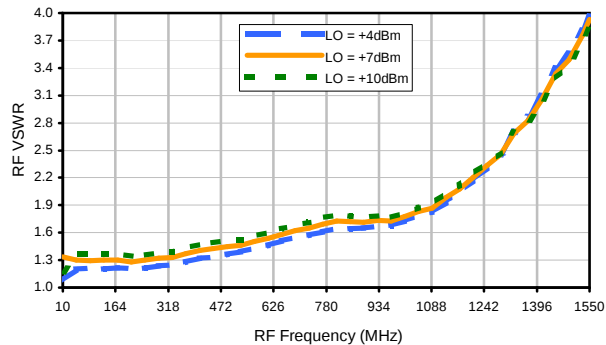
LO-IF Isolation



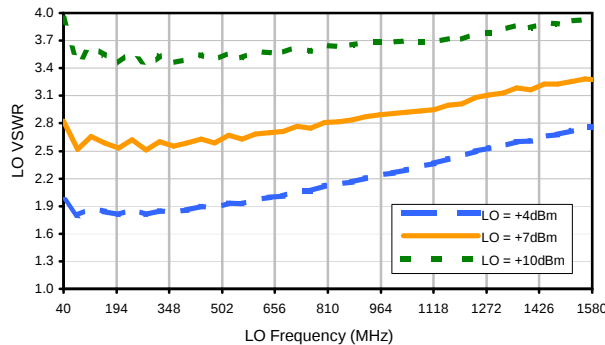
RF-IF Isolation



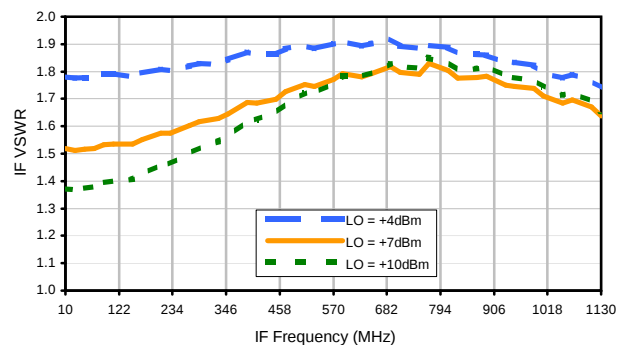
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 6   | 17  | 12  | 22  | 21  | 30  | 31  | 35  | 30  | 60  |
| 1  | -      | 15     | +0  | 28  | 12  | 29  | 19  | 42  | 43  | 48  | 49  | 45  |
| 2  | >90    | 66     | 51  | 58  | 50  | 69  | 49  | 59  | 56  | 69  | 66  | 65  |
| 3  | >90    | >69    | >69 | 68  | >69 | >69 | 66  | >69 | >69 | >69 | >69 | >69 |
| 4  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 5  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 6  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | 66  | >69 | >69 | >69 |
| 7  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 8  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 9  | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 10 | >90    | >69    | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions: RF IN: 582.5 MHz; -14.00 dBm.  
LO IN: 612.5 MHz; +7.00 dBm  
IF OUT: 30 MHz; -20.95 dBm

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 16  | 27  | 23  | 33  | 34  | 43  | 43  | 50  | 44  | 69  |
| 1  | -      | 15     | +0  | 28  | 12  | 31  | 20  | 44  | 44  | 52  | 54  | 50  |
| 2  | 70     | 54     | 42  | 52  | 41  | 63  | 42  | 52  | 50  | 58  | 57  | 58  |
| 3  | >90    | 53     | 55  | 57  | 53  | 55  | 46  | 52  | 48  | 65  | 65  | 64  |
| 4  | >90    | 65     | 74  | 61  | 65  | 62  | 66  | 64  | 56  | 62  | 65  | 76  |
| 5  | >90    | 75     | 73  | 73  | 62  | 71  | 59  | 70  | 59  | 74  | 64  | >79 |
| 6  | >90    | >79    | >79 | >79 | >79 | 77  | 77  | >79 | 74  | >79 | >79 | >79 |
| 7  | >90    | >79    | >79 | >79 | 78  | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 8  | >90    | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 9  | >90    | >79    | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 10 | >90    | >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: 582.5 MHz; -4.00 dBm.  
LO IN: 612.5 MHz; +7.00 dBm  
IF OUT: 30 MHz; -11.02 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.