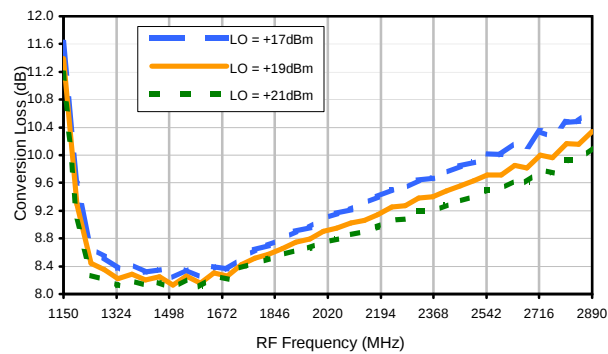


# Frequency Mixer

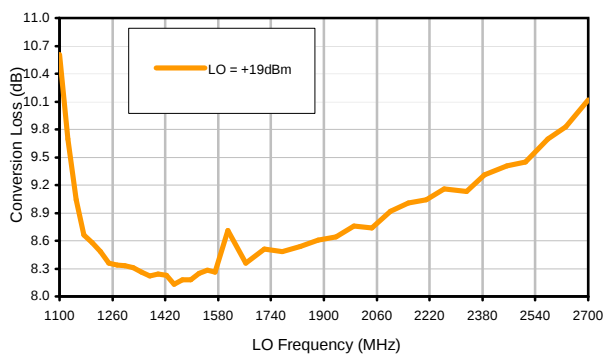
LAVI-ED12538B/1

## Typical Performance Curves

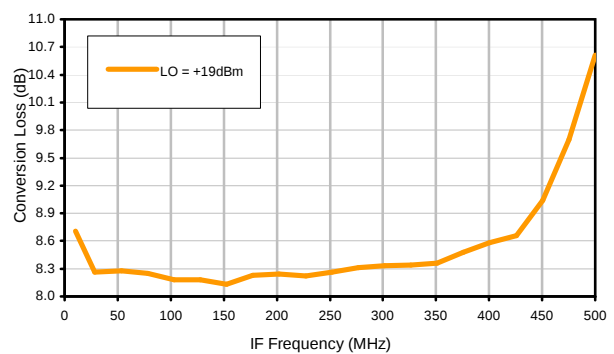
Conversion Loss @ IF=70MHz



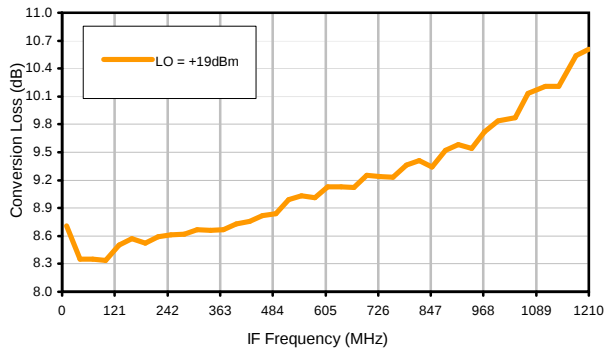
Conversion Loss vs. LO @ RF=1600MHz



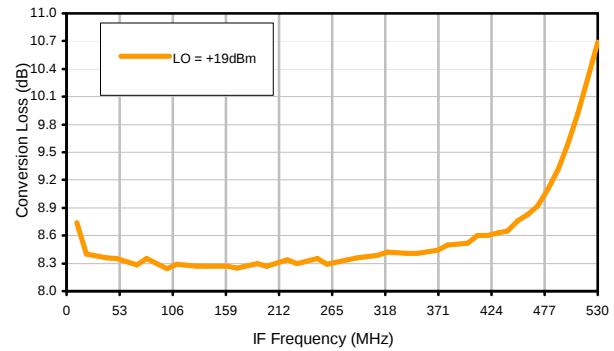
Conversion Loss vs. IF @ RF=1600MHz



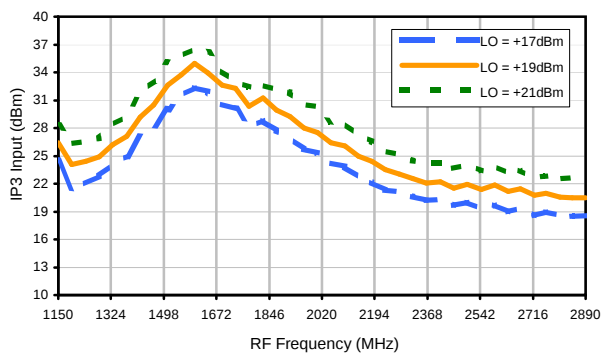
Conversion Loss vs. IF @ RF=1565.5MHz



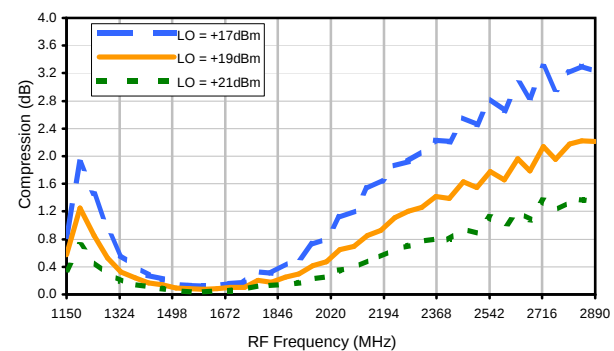
Conversion Loss vs. IF @ RF=1634.1MHz



IP3 Input



Compression @ RF IN=+15dBm

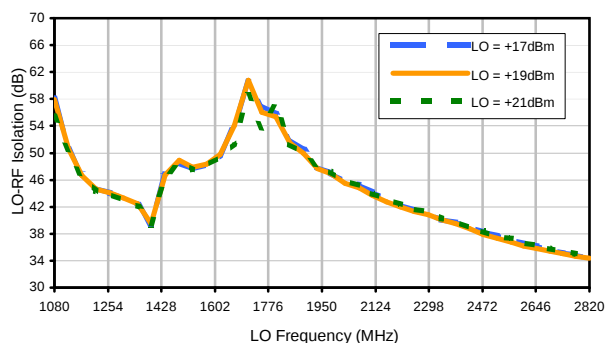


# Frequency Mixer

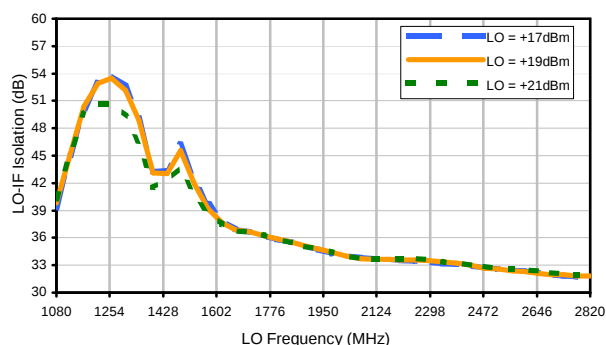
LAVI-ED12538B/1

## Typical Performance Curves

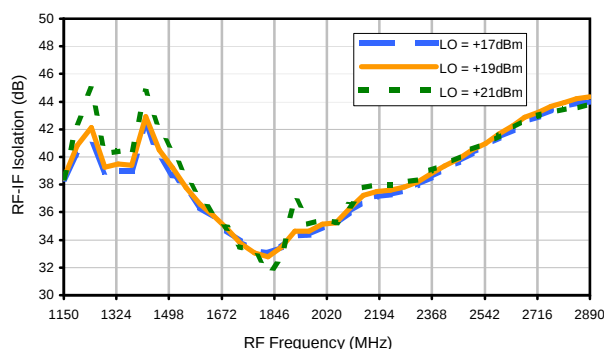
LO-RF Isolation



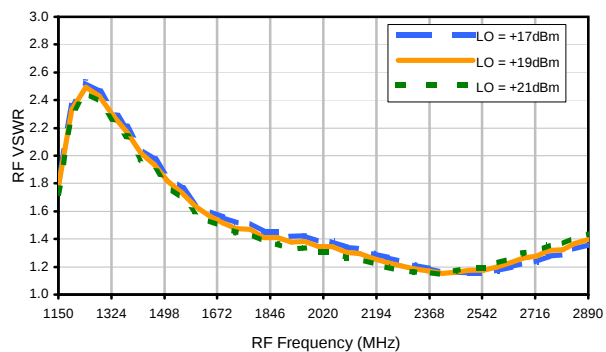
LO-IF Isolation



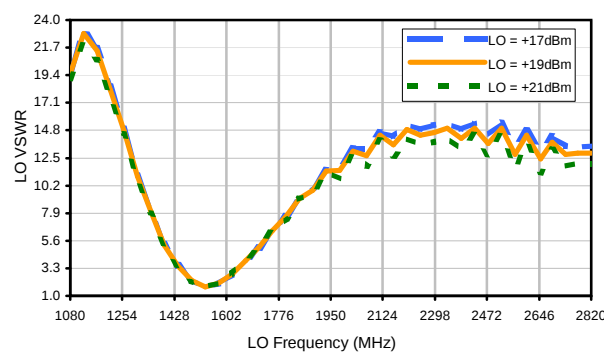
RF-IF Isolation



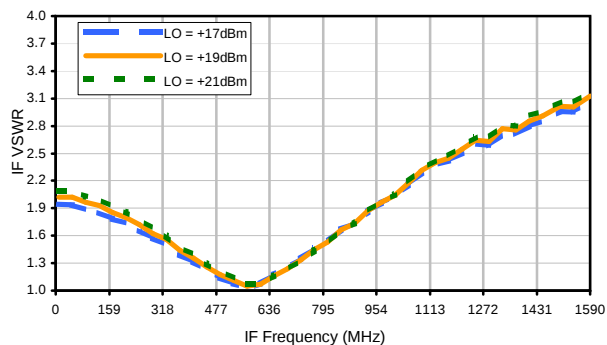
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 16  | 31  | 15  | 20  | 20  | 31  | 27  | 52  | 48  | 51  |
| 1  | -      | 29     | +0  | 49  | 20  | 40  | 32  | 57  | 32  | 46  | 42  | 54  |
| 2  | 57     | 58     | 78  | 53  | >82 | 64  | 78  | 68  | 75  | 66  | 77  | 74  |
| 3  | >90    | >82    | >82 | >82 | 80  | >82 | >82 | >82 | >82 | >82 | 82  | >82 |
| 4  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 5  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 6  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 7  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 8  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 9  | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
| 10 | >90    | >82    | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 | >82 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions:

RF IN: 1600 MHz; 0.00 dBm.  
LO IN: 1530 MHz; +19.00 dBm  
IF OUT: 70 MHz; -8.26 dBm

RF HARMONICS ORDER

|    | (-dBm) | (-dBc) |     |     |     |     |     |     |     |     |     |     |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | -      | -      | 26  | 47  | 25  | 30  | 31  | 43  | 37  | 64  | 62  | 62  |
| 1  | -      | 29     | +0  | 48  | 20  | 40  | 32  | 56  | 33  | 46  | 42  | 54  |
| 2  | 37     | 48     | 69  | 43  | 64  | 54  | 69  | 58  | 65  | 57  | 63  | 64  |
| 3  | 71     | 81     | 65  | 78  | 57  | 81  | 66  | 79  | 67  | 88  | 62  | 82  |
| 4  | 90     | >92    | 88  | >92 | 84  | >92 | 87  | >92 | >92 | >92 | >92 | 86  |
| 5  | >90    | >92    | >92 | >92 | >92 | >92 | 85  | >92 | 91  | >92 | >92 | >92 |
| 6  | >90    | >92    | 87  | >92 | 90  | >92 | 87  | >92 | 85  | >92 | >92 | >92 |
| 7  | >90    | >92    | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 |
| 8  | >90    | >92    | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 |
| 9  | >90    | >92    | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 |
| 10 | >90    | >92    | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 | >92 |
|    | RF CAL | 0      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |

### LO HARMONICS ORDER

Test conditions:

RF IN: 1600 MHz; 10.00 dBm.  
LO IN: 1530 MHz; +19.00 dBm  
IF OUT: 70 MHz; 1.79 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.