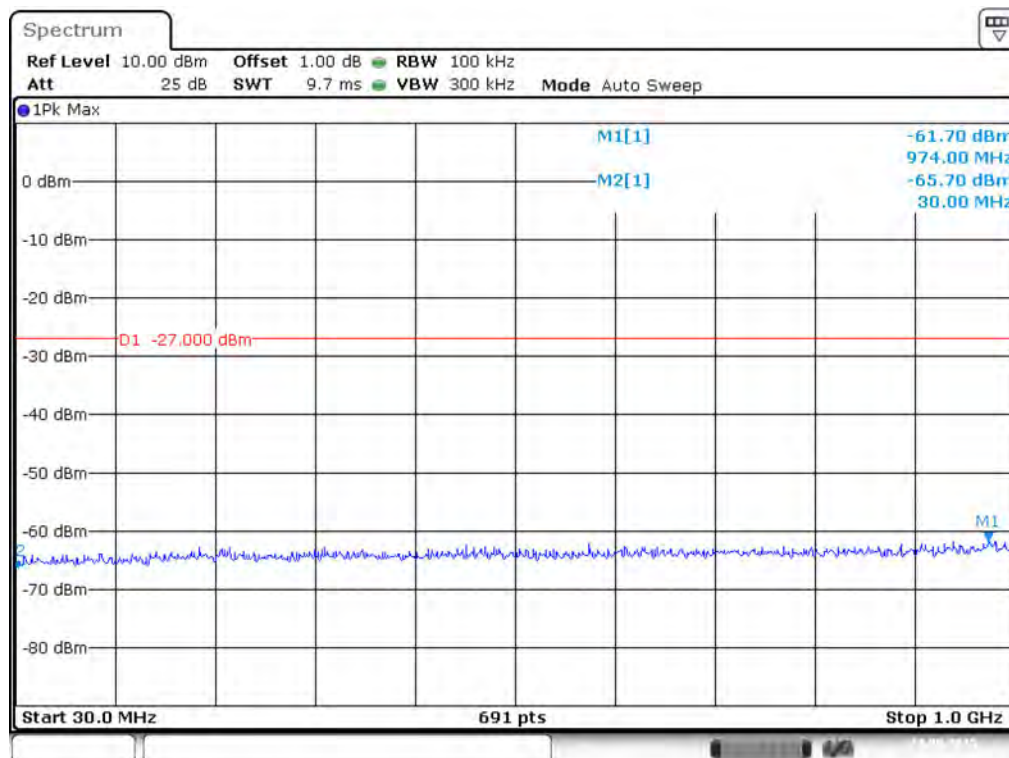


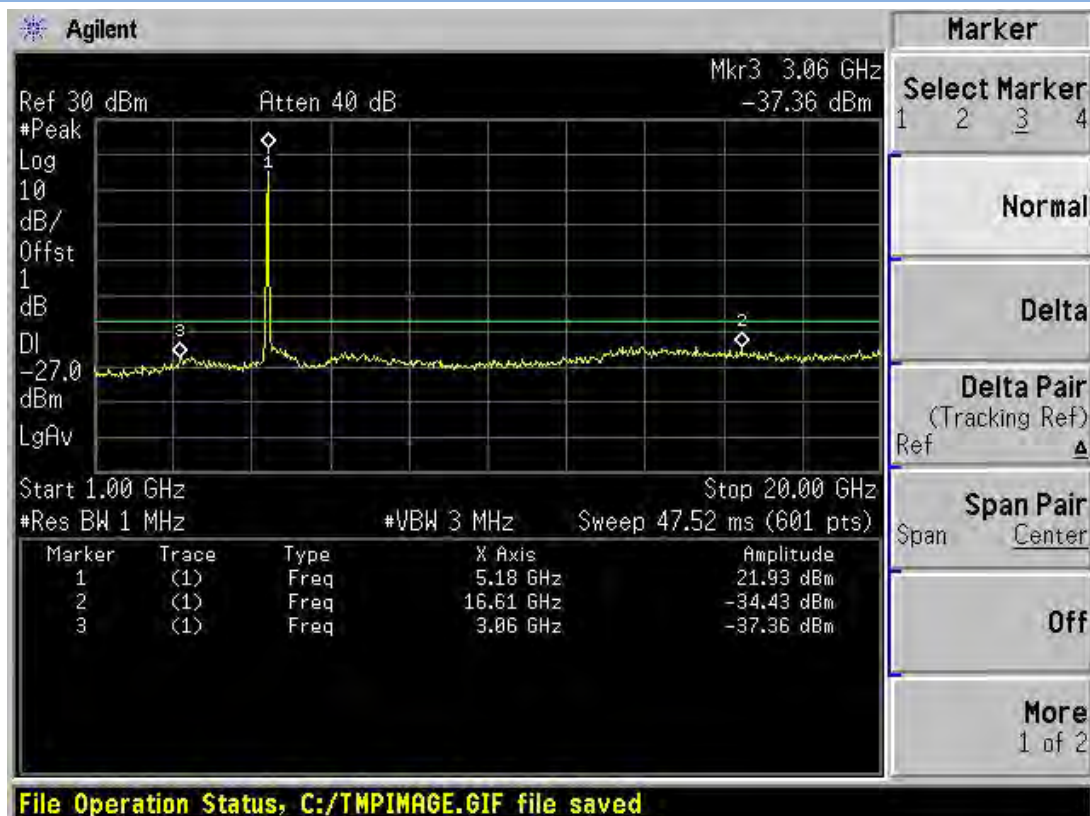
A.6 Conducted Spurious Emission

Band I 11a CH36 (30 ~ 1000 MHz)

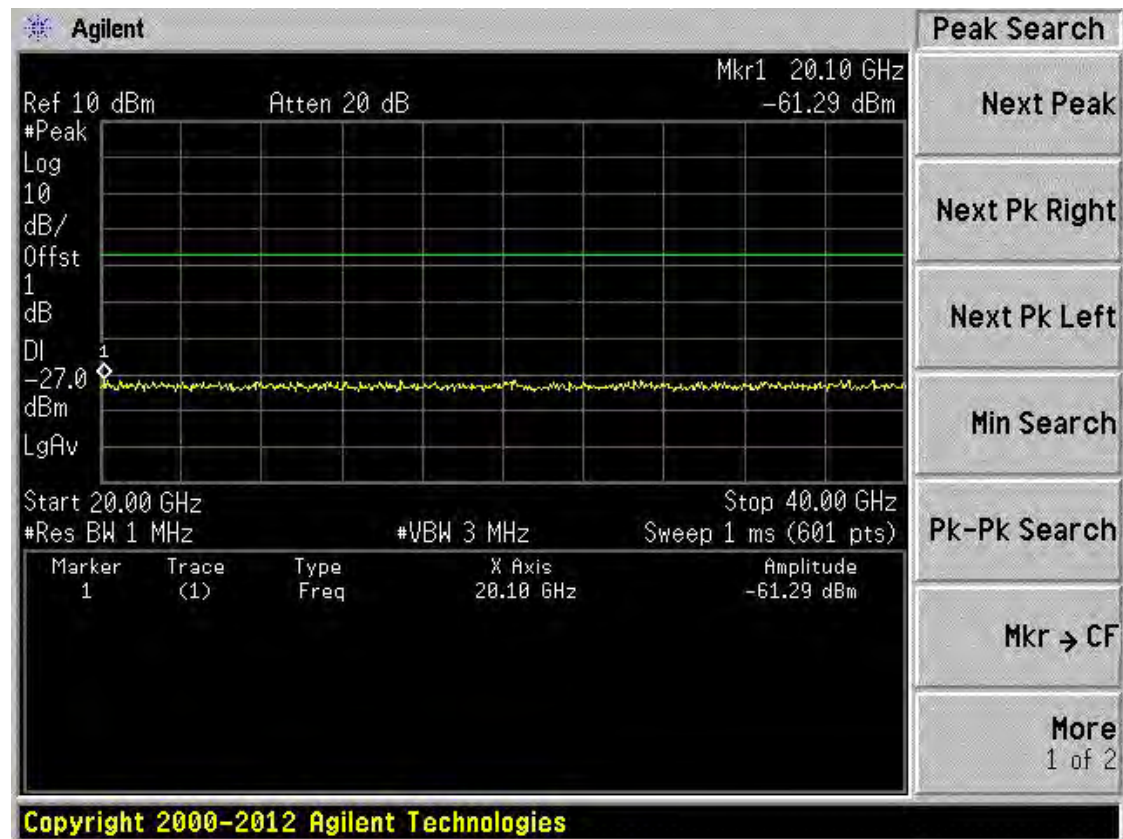


Date: 24.AUG.2015 16:04:36

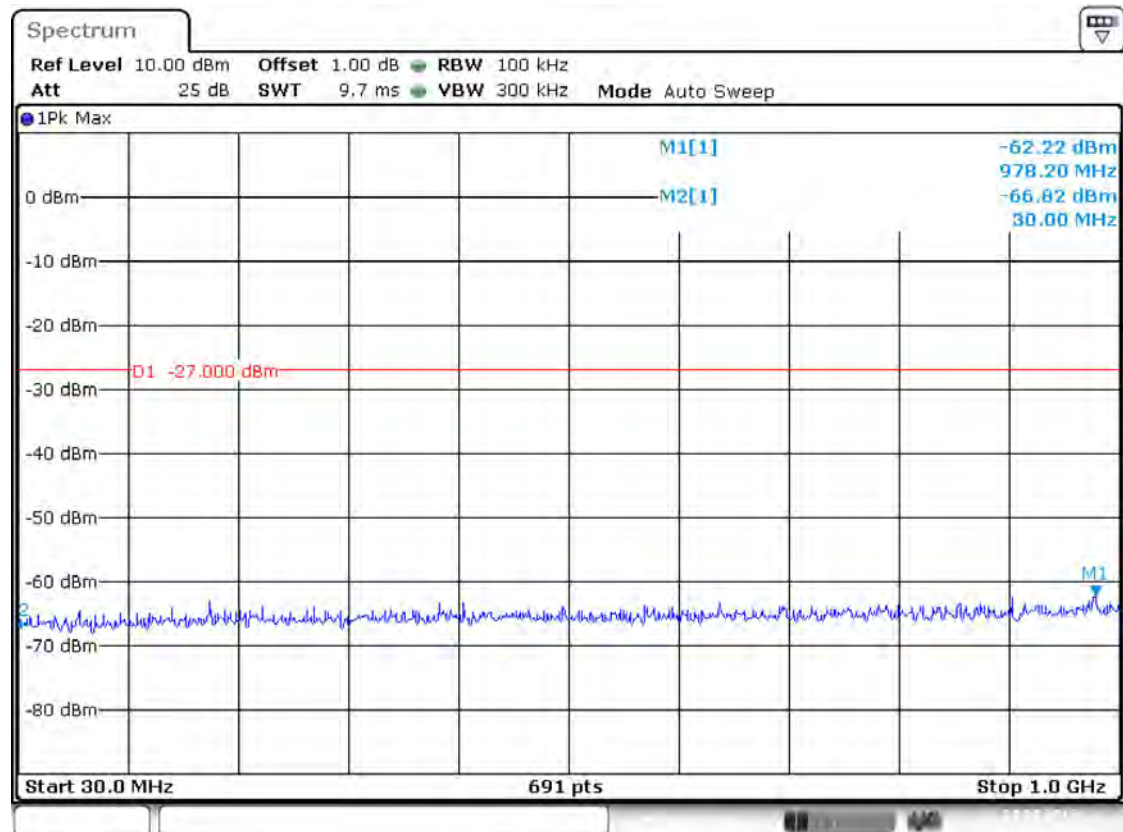
Band I 11a CH36 (1 ~ 20 GHz)



Band I 11a CH36 (20 ~ 40 GHz)

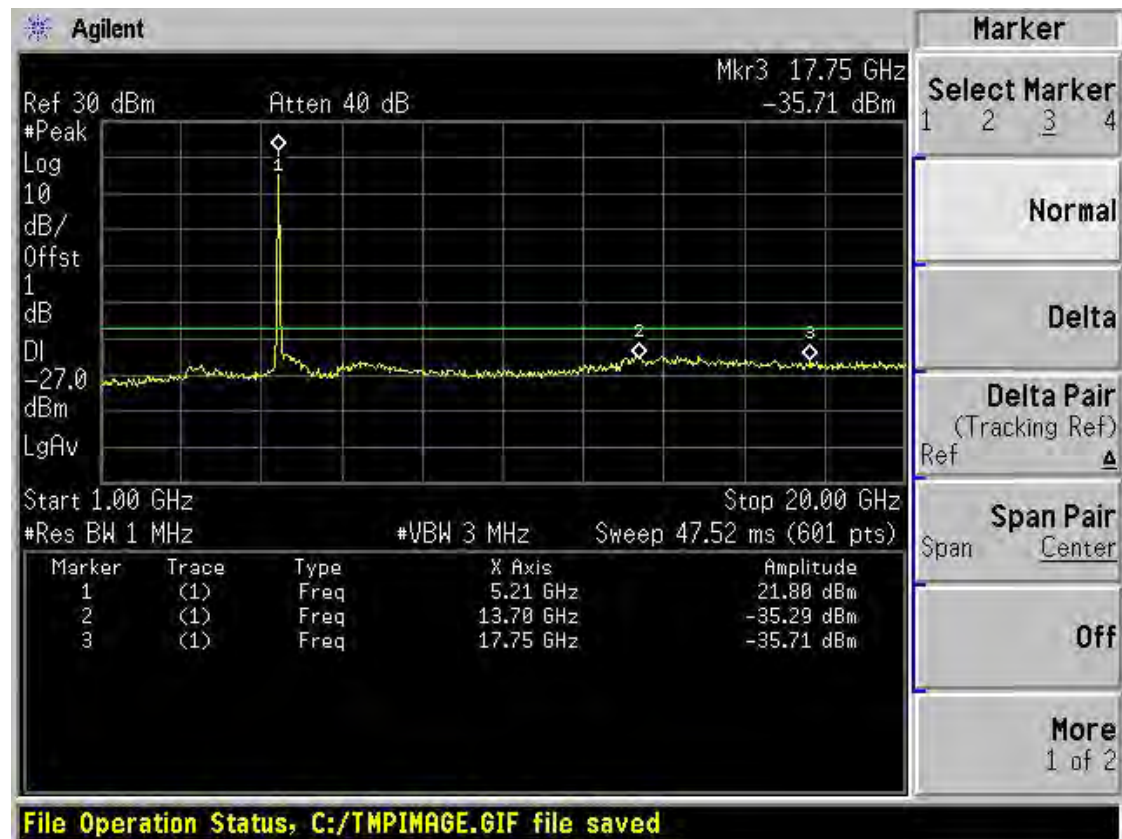


Band I 11a CH40 (30 ~ 1000 MHz)

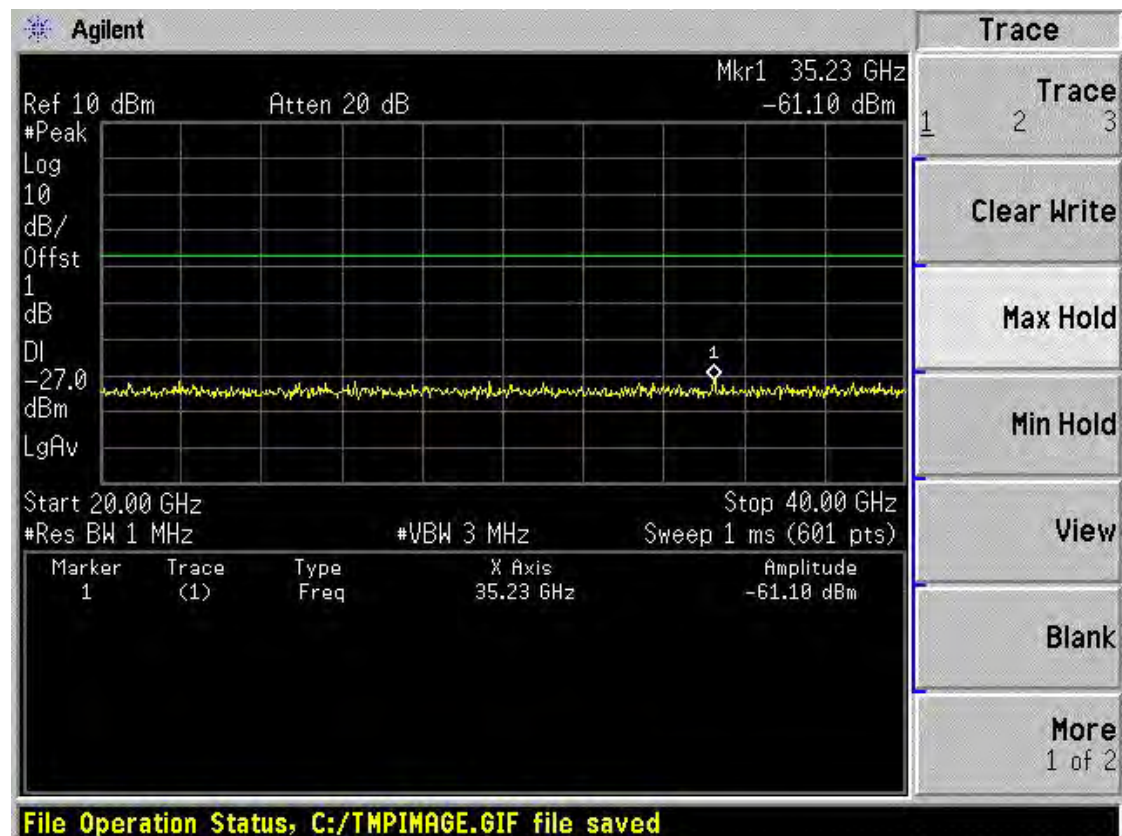


Date: 24.AUG.2015 16:06:18

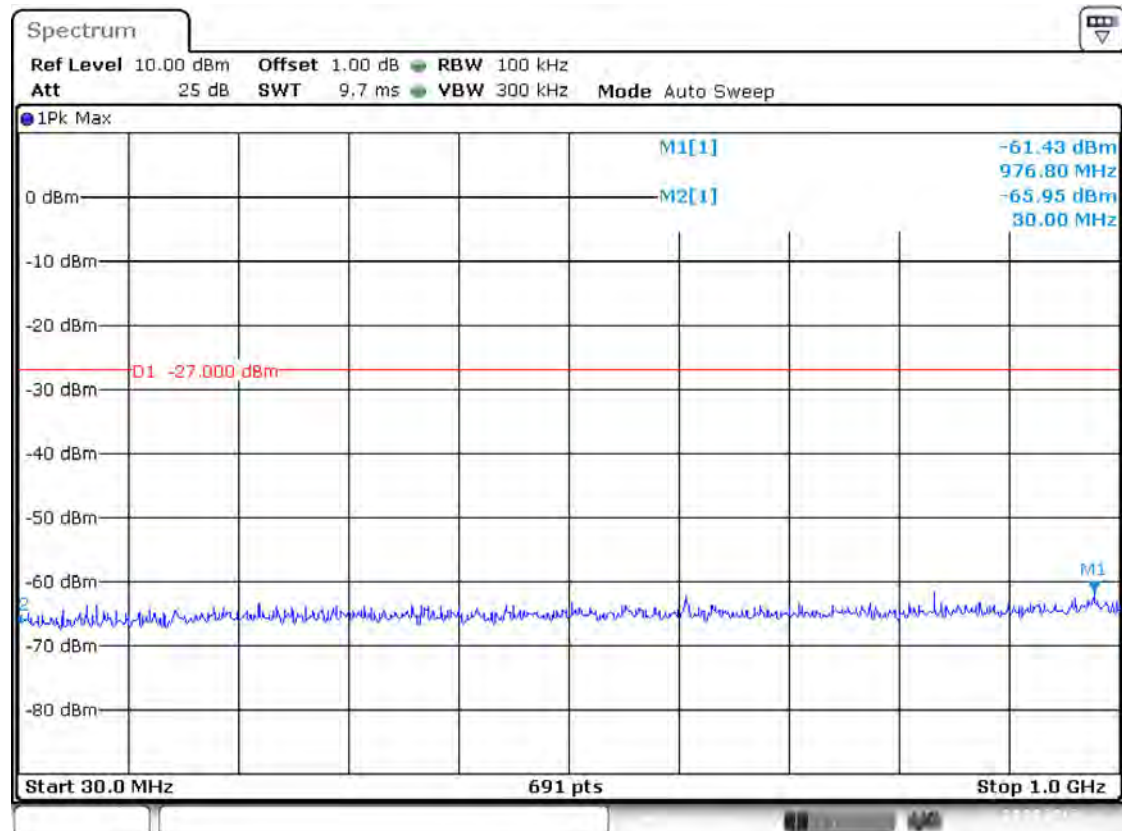
Band I 11a CH40 (1 ~ 20 GHz)



Band I 11a CH40 (20 ~ 40 GHz)

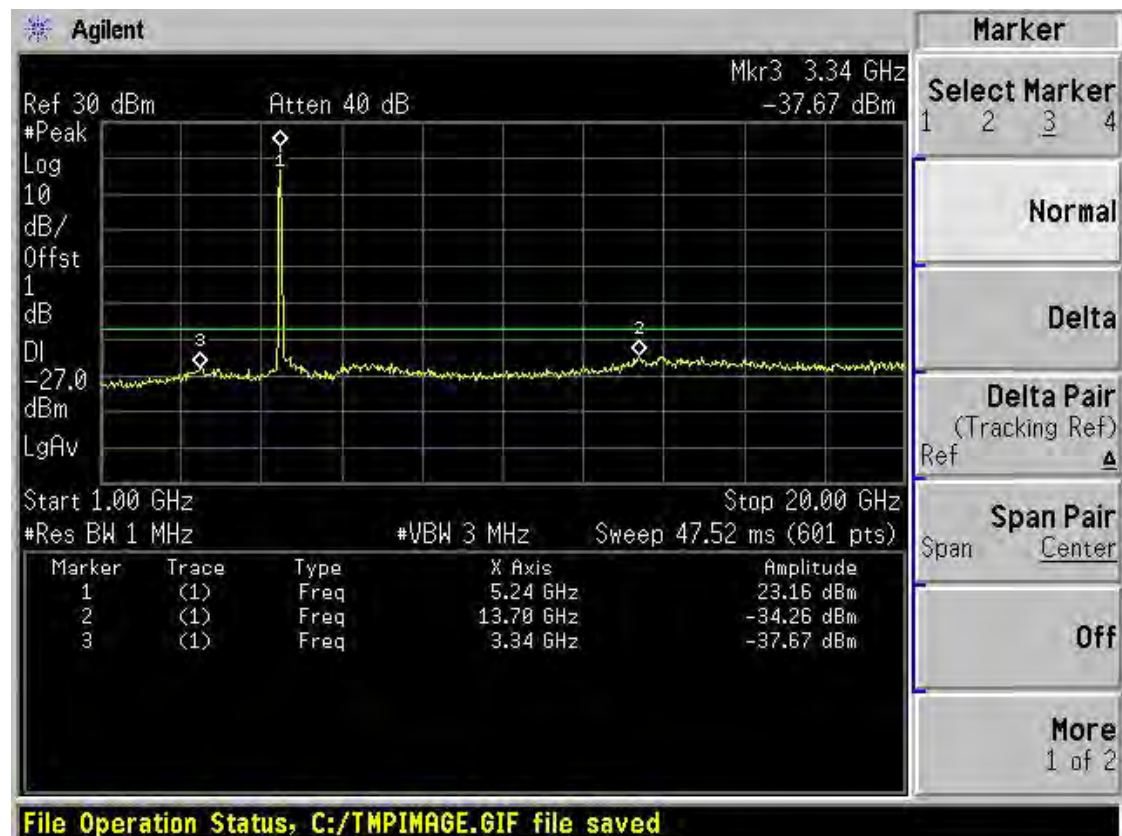


Band I 11a CH48 (30 ~ 1000 MHz)

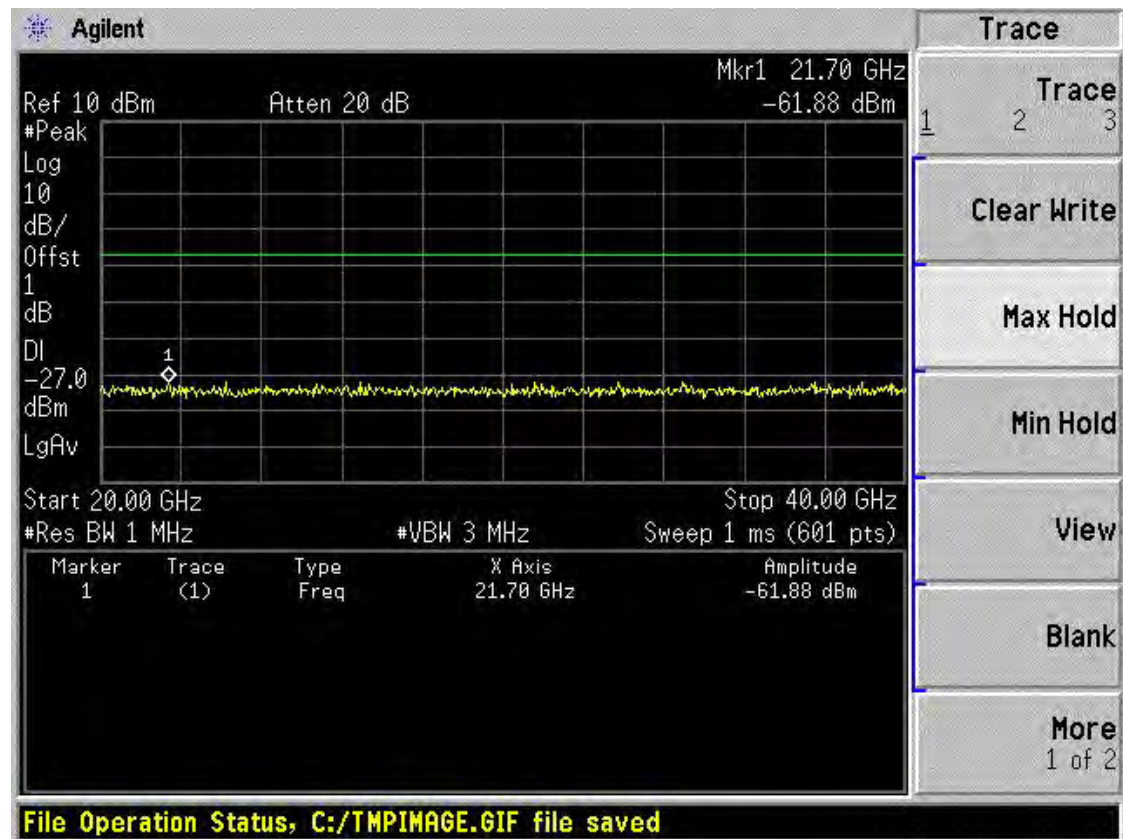


Date: 24.AUG.2015 16:07:22

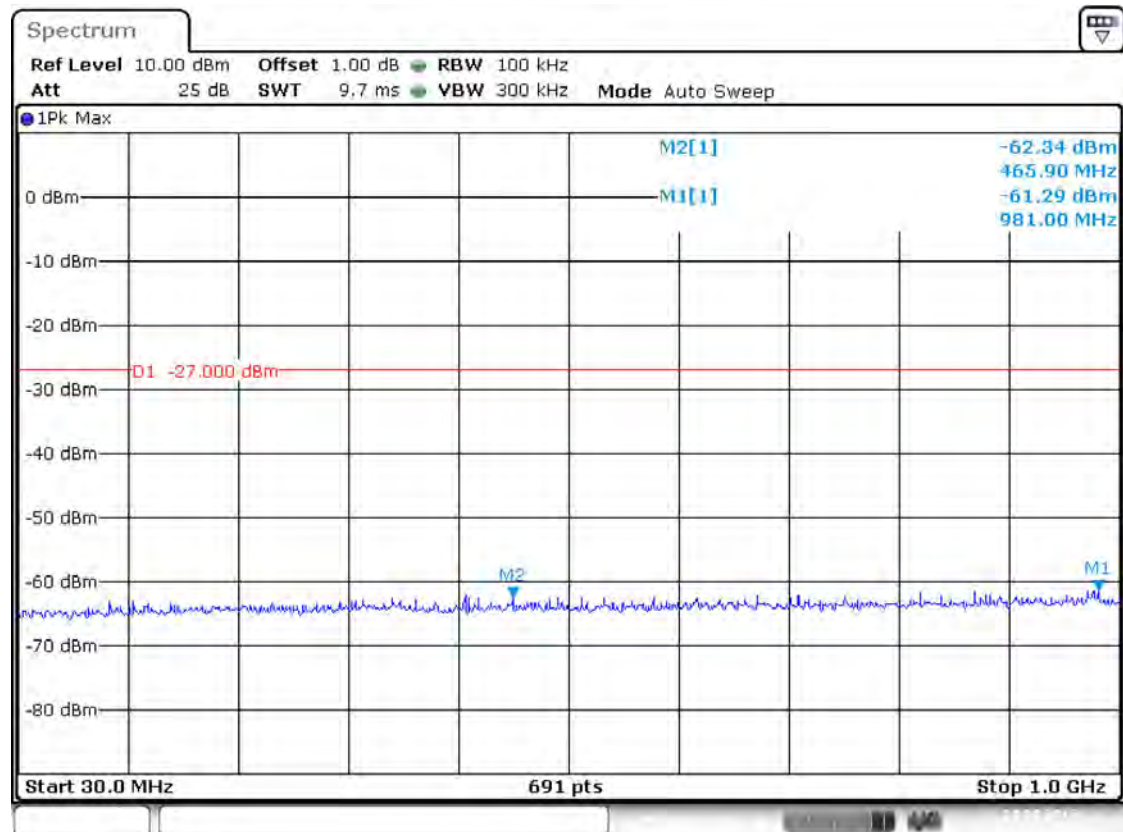
Band I 11a CH48 (1 ~ 20 GHz)



Band I 11a CH48 (20 ~ 40 GHz)

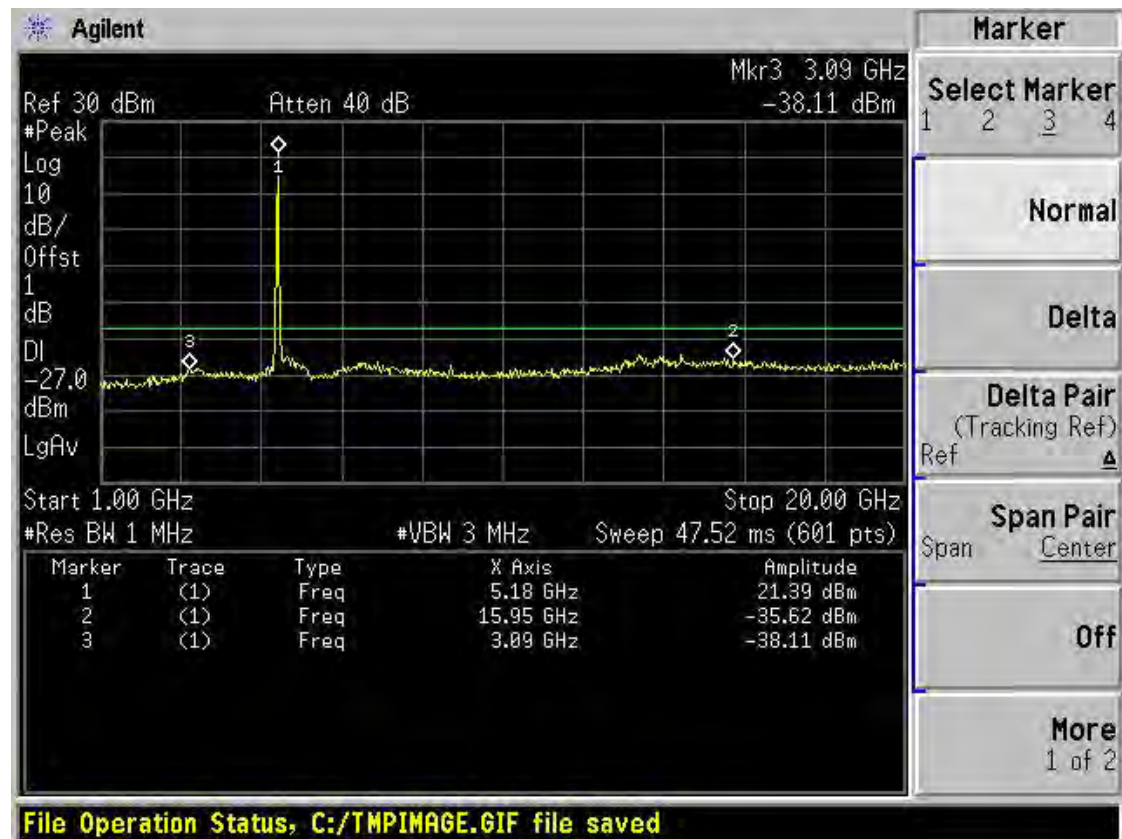


Band I 11n(HT20) CH36 (30 ~ 1000 MHz)

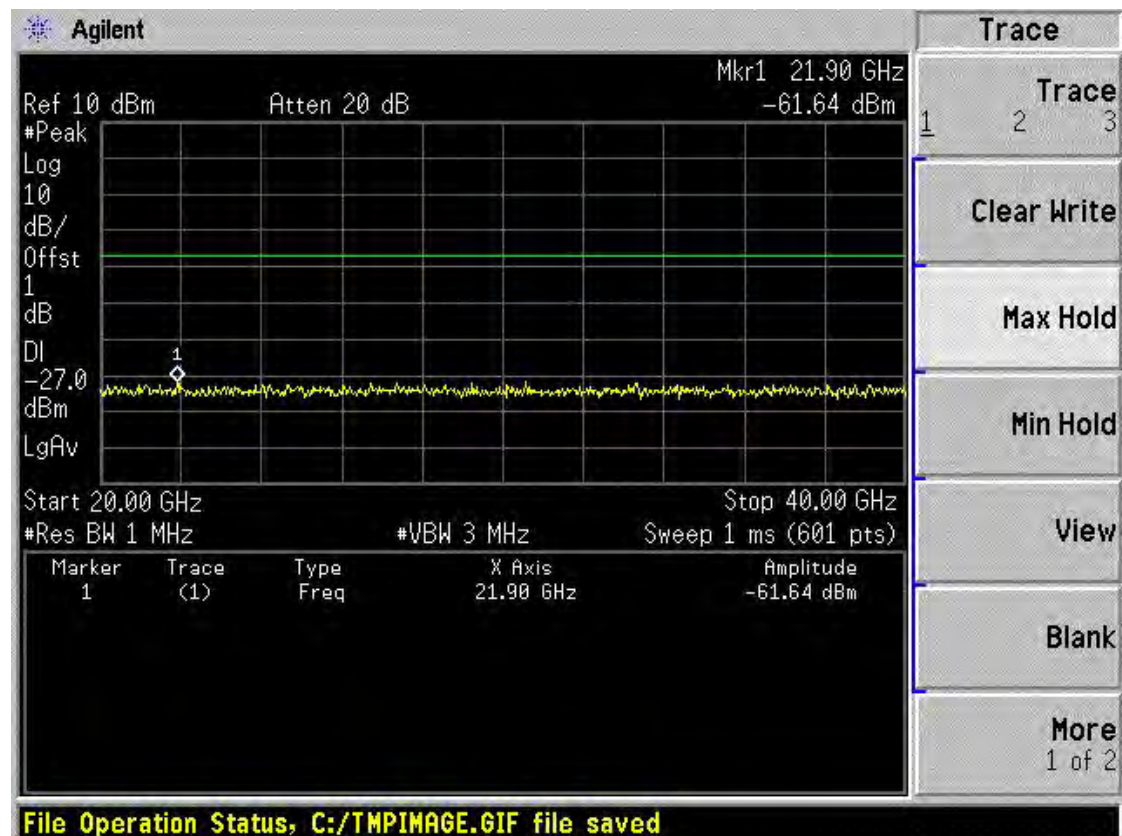


Date: 24.AUG.2015 16:21:41

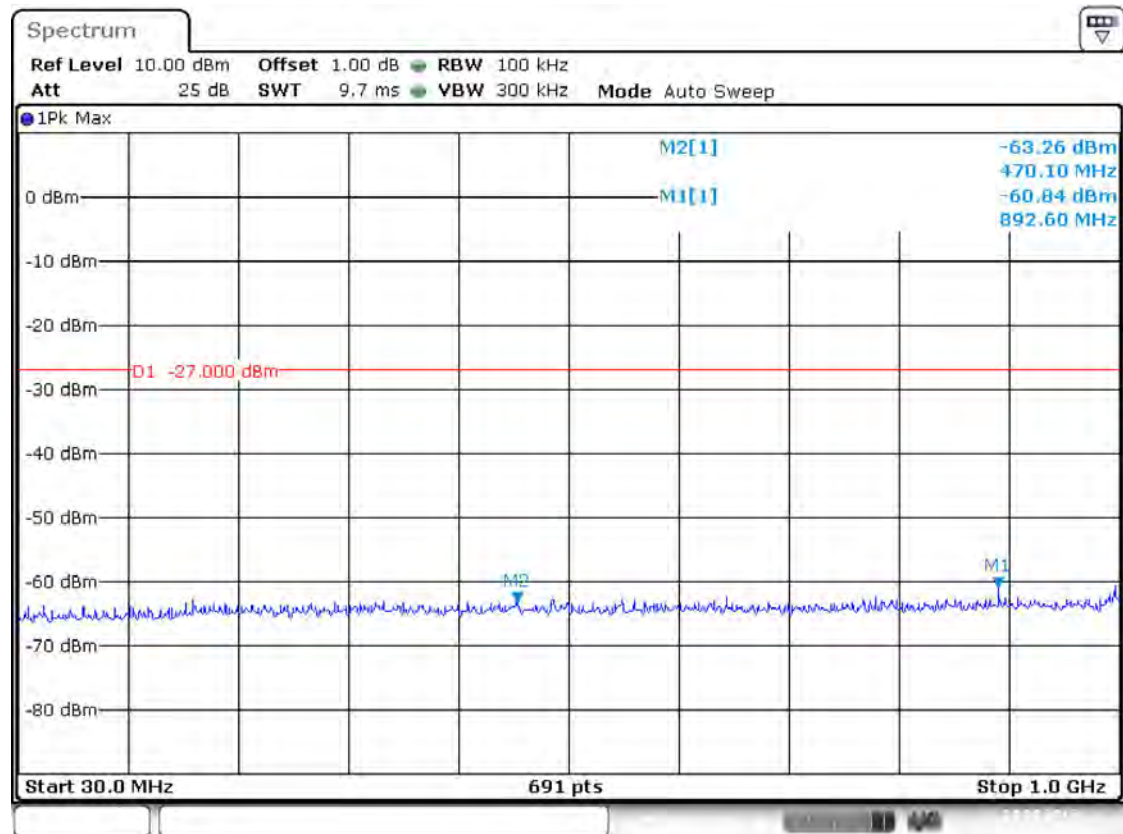
Band I 11n(HT20) CH36 (1 ~ 20 GHz)



Band I 11n(HT20) CH36 (20 ~ 40 GHz)

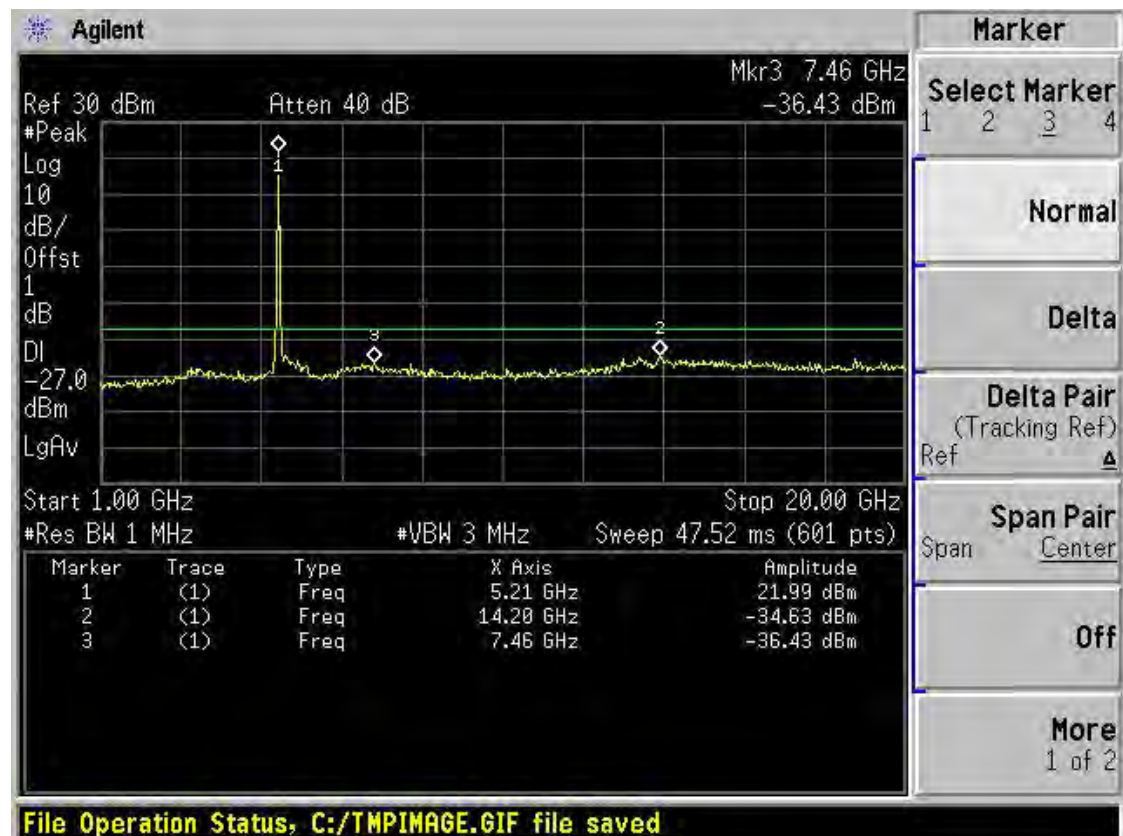


Band I 11n(HT20) CH40 (30 ~ 1000 MHz)

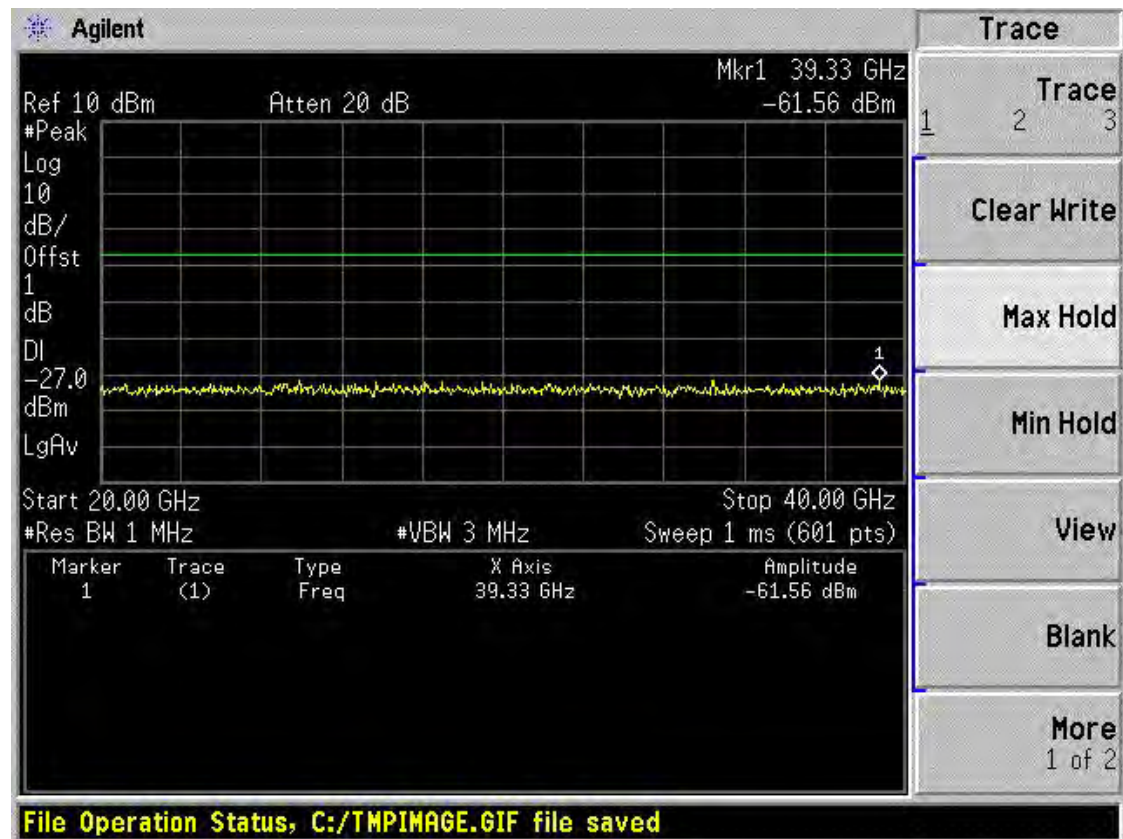


Date: 24.AUG.2015 16:23:24

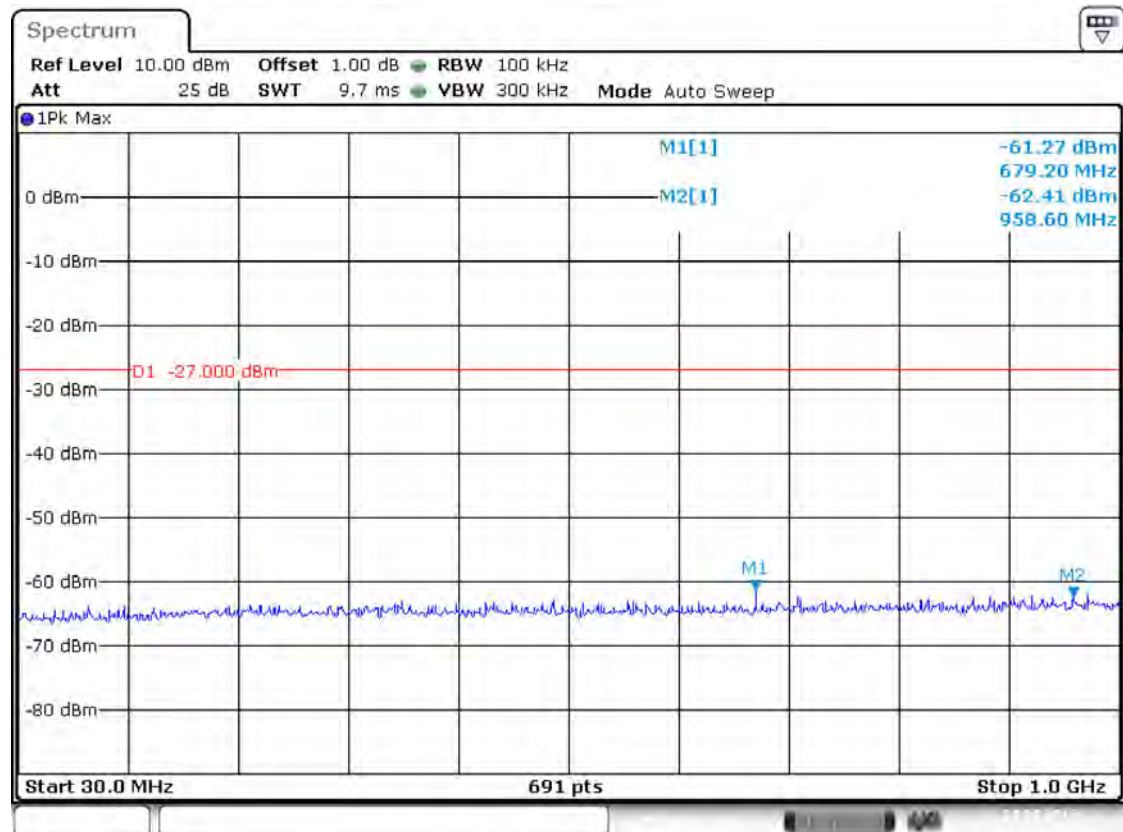
Band I 11n(HT20) CH40 (1 ~ 20 GHz)



Band I 11n(HT20) CH40 (20 ~ 40 GHz)

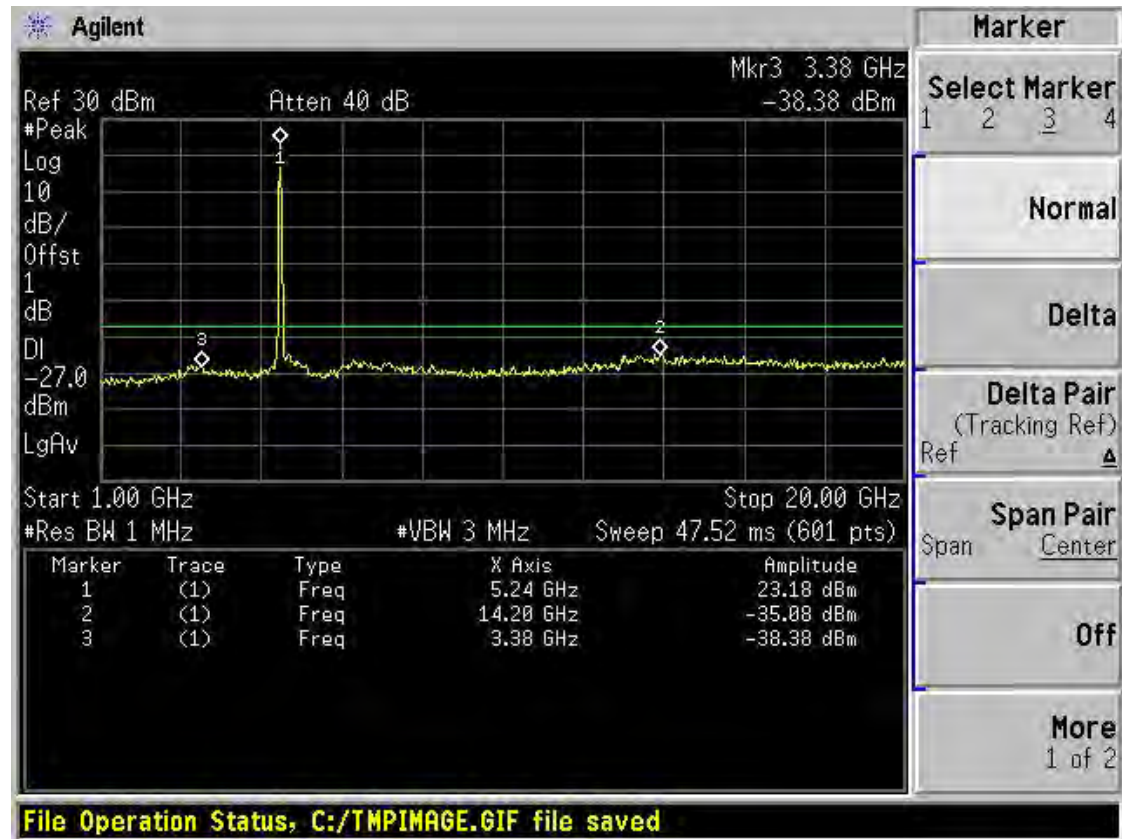


Band I 11n(HT20) CH48 (30 ~ 1000 MHz)

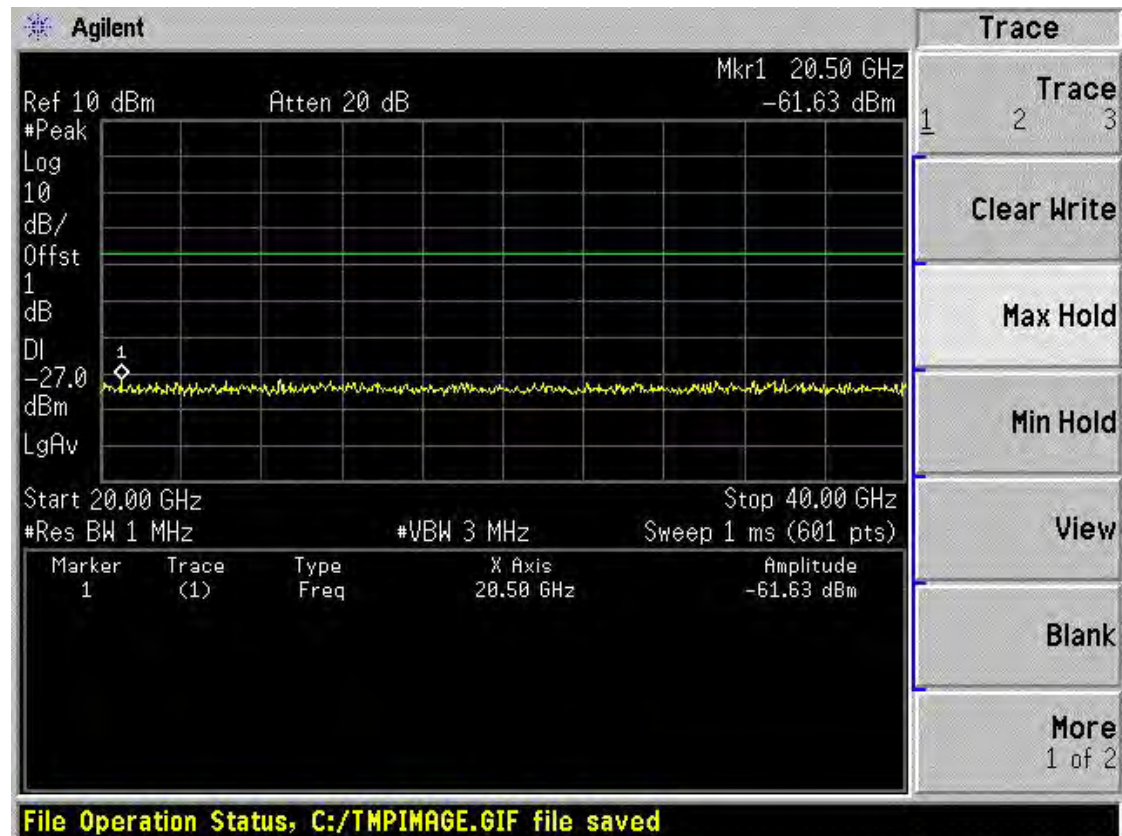


Date: 24.AUG.2015 16:24:16

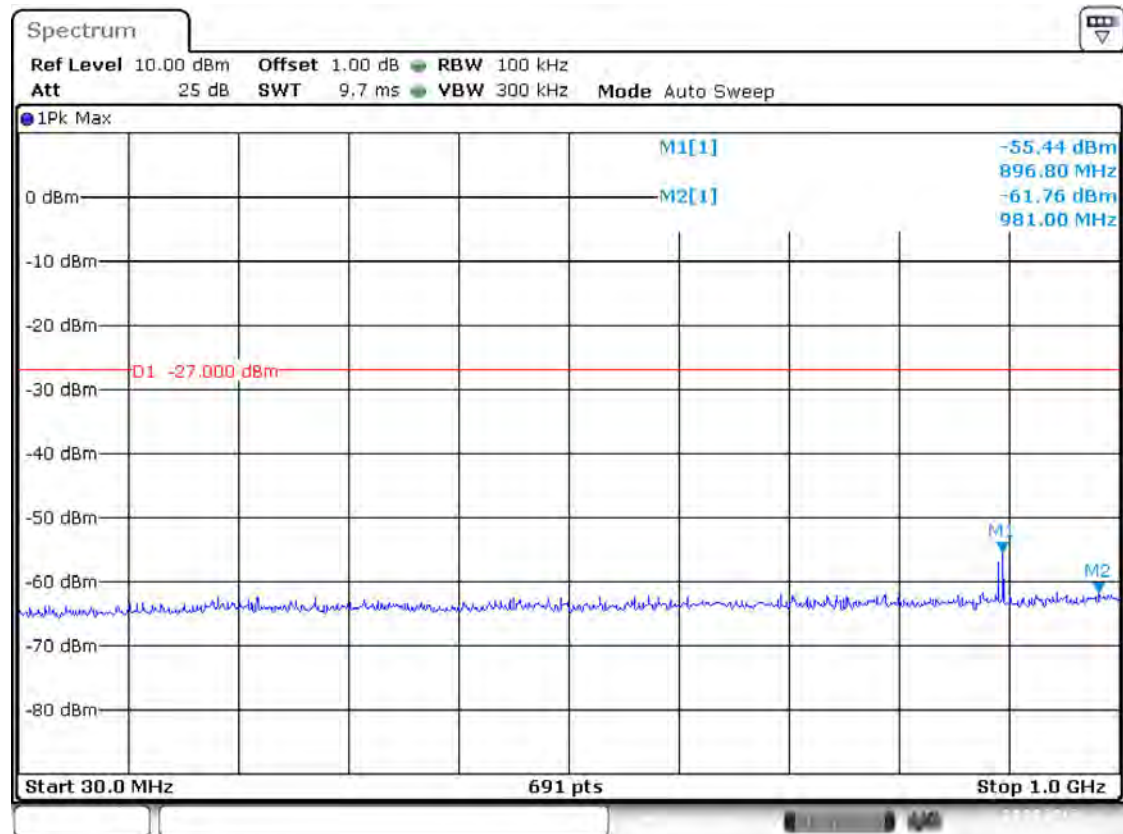
Band I 11n(HT20) CH48 (1 ~ 20 GHz)



Band I 11n(HT20) CH48 (20 ~ 40 GHz)

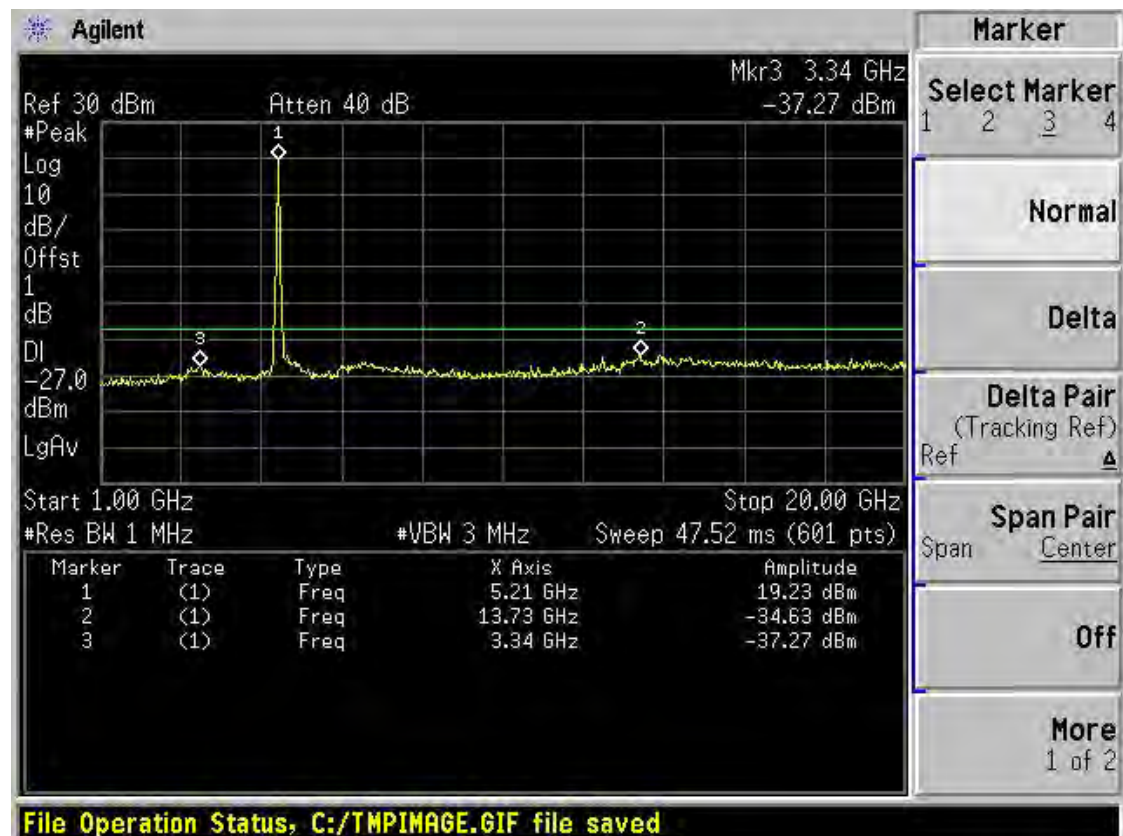


Band I 11n(HT40) CH38 (30 ~ 1000 MHz)

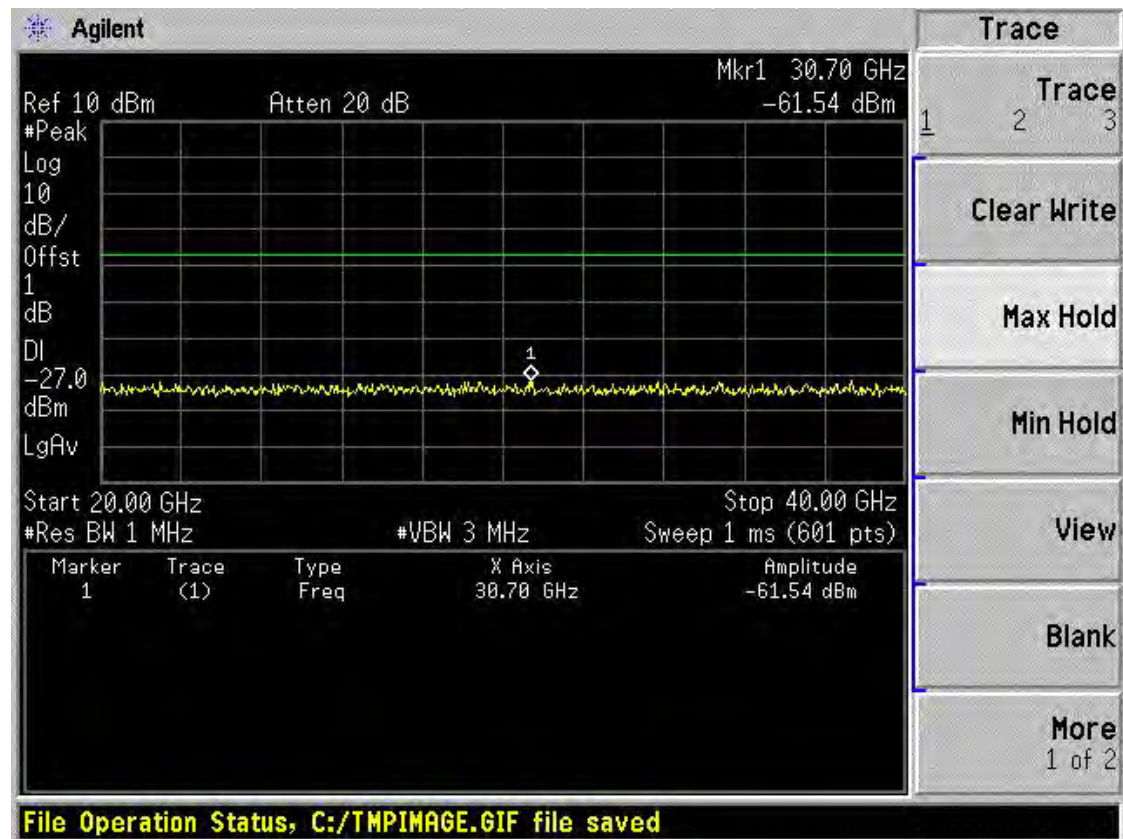


Date: 24.AUG.2015 16:27:59

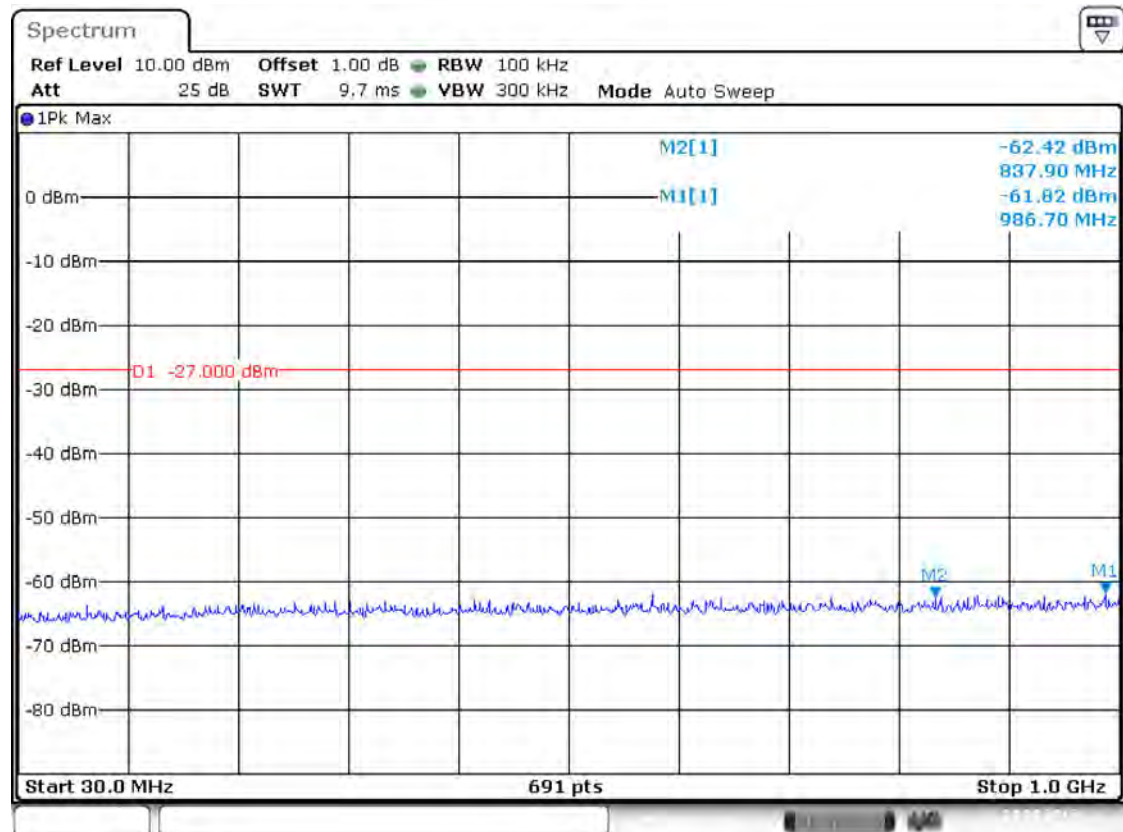
Band I 11n(HT40) CH38 (1 ~ 20 GHz)



Band I 11n(HT40) CH38 (20 ~ 40 GHz)

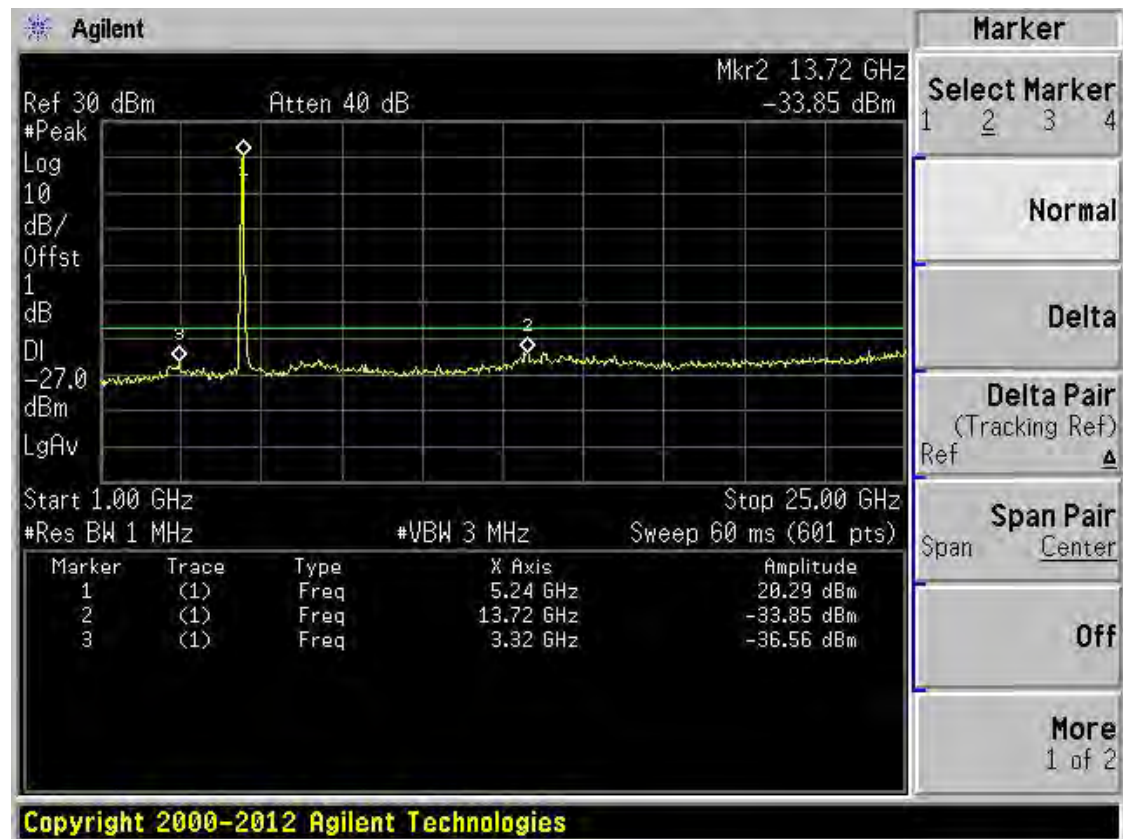


Band I 11n(HT40) CH46 (30 ~ 1000 MHz)

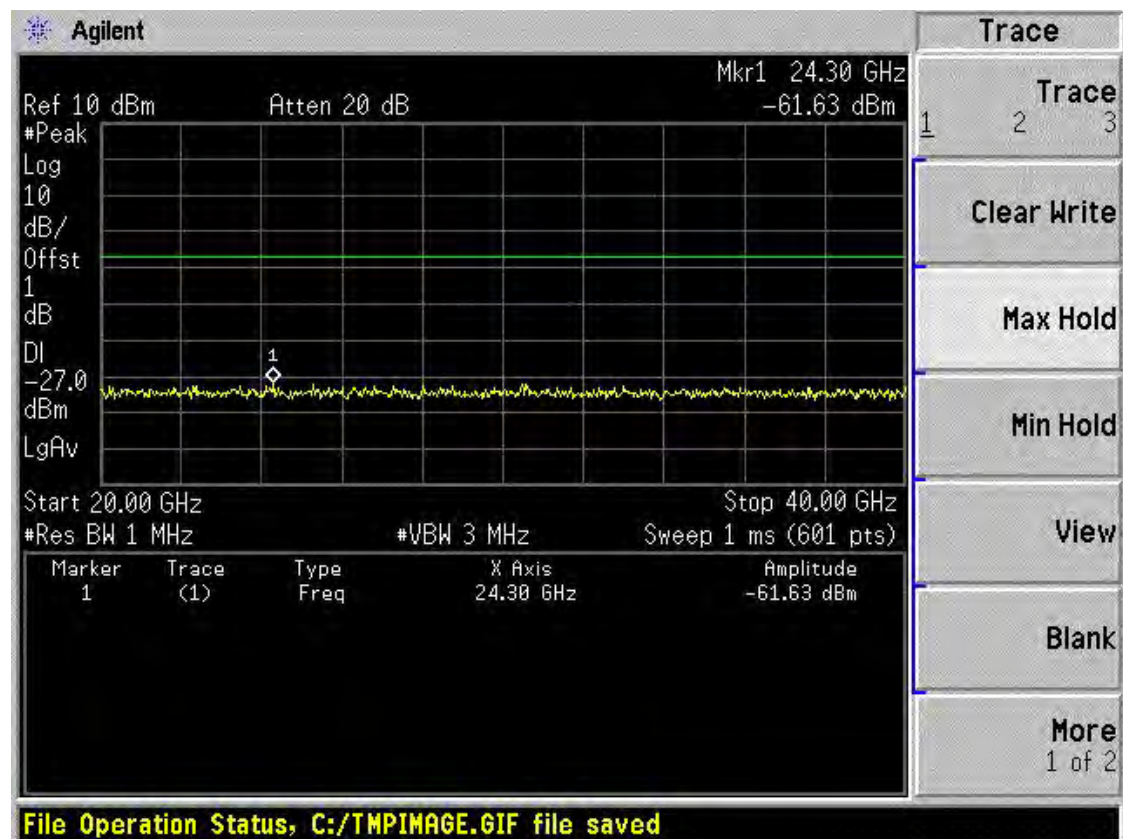


Date: 24.AUG.2015 16:29:42

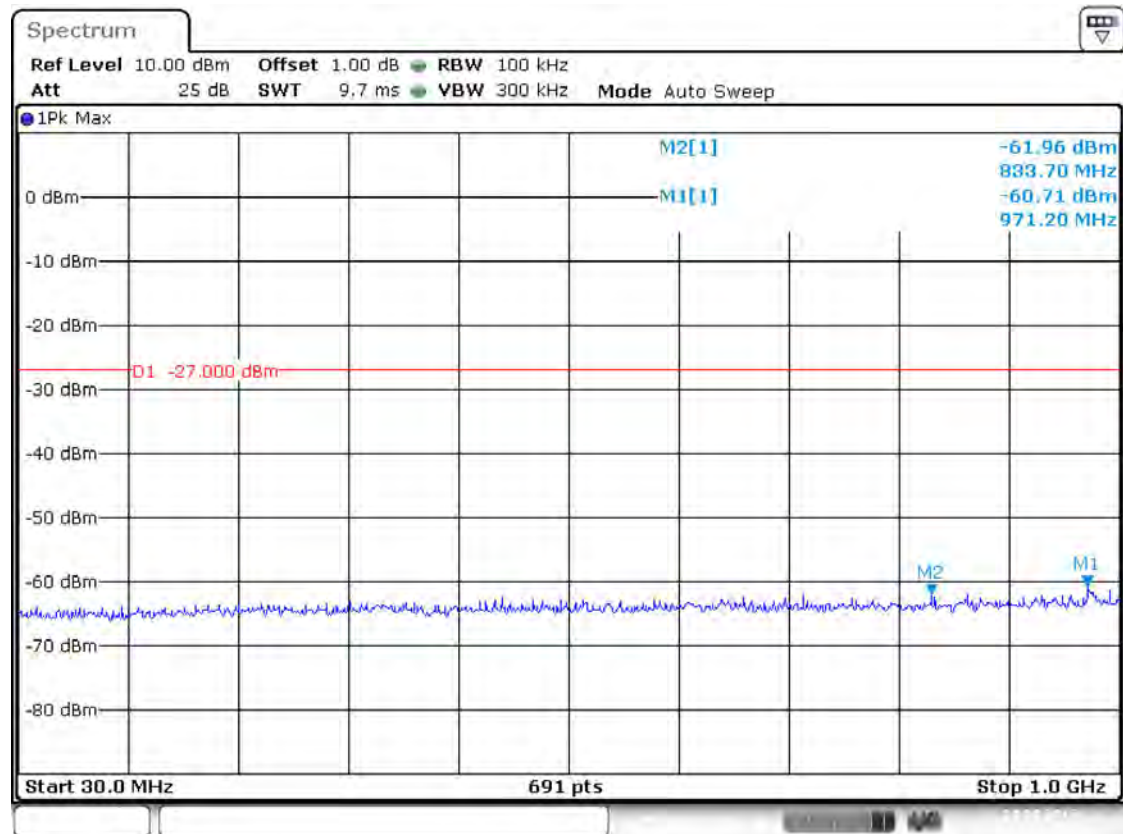
Band I 11n(HT40) CH46 (1 ~ 20 GHz)



Band I 11n(HT40) CH46 (20 ~ 40 GHz)

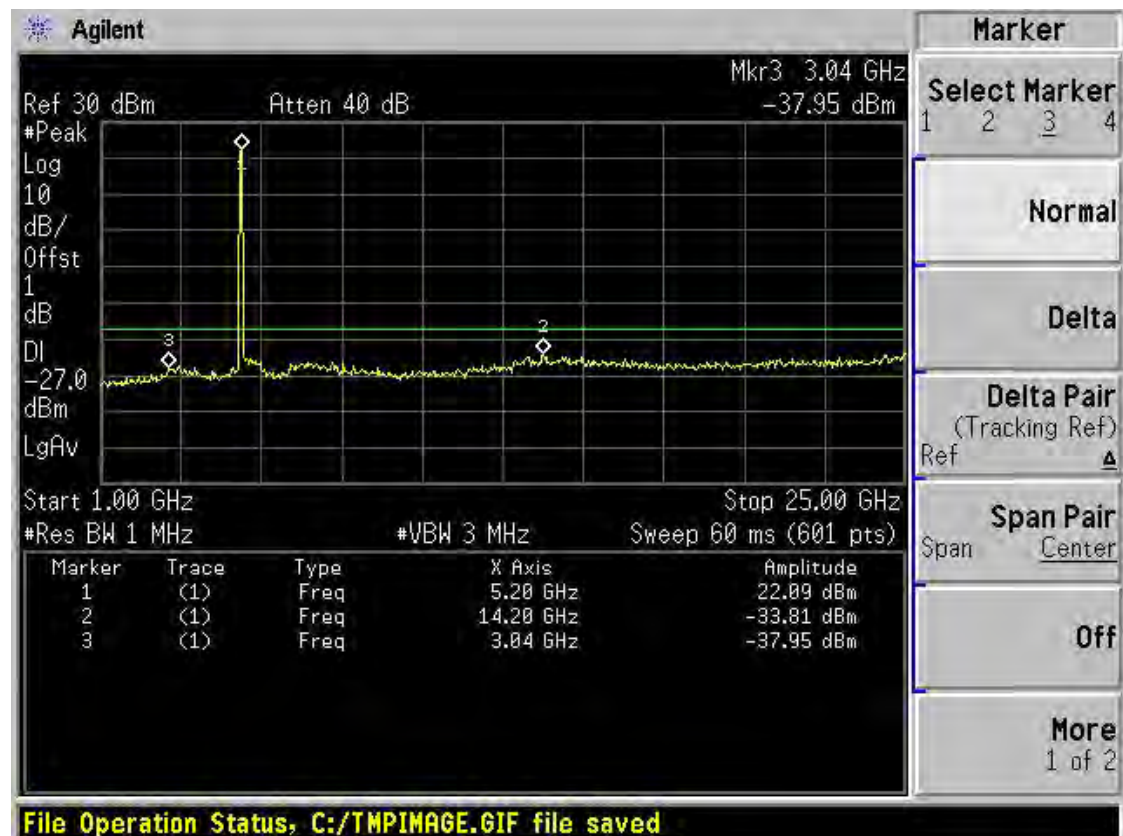


Band I 11ac(HT20) CH36 (30 ~ 1000 MHz)

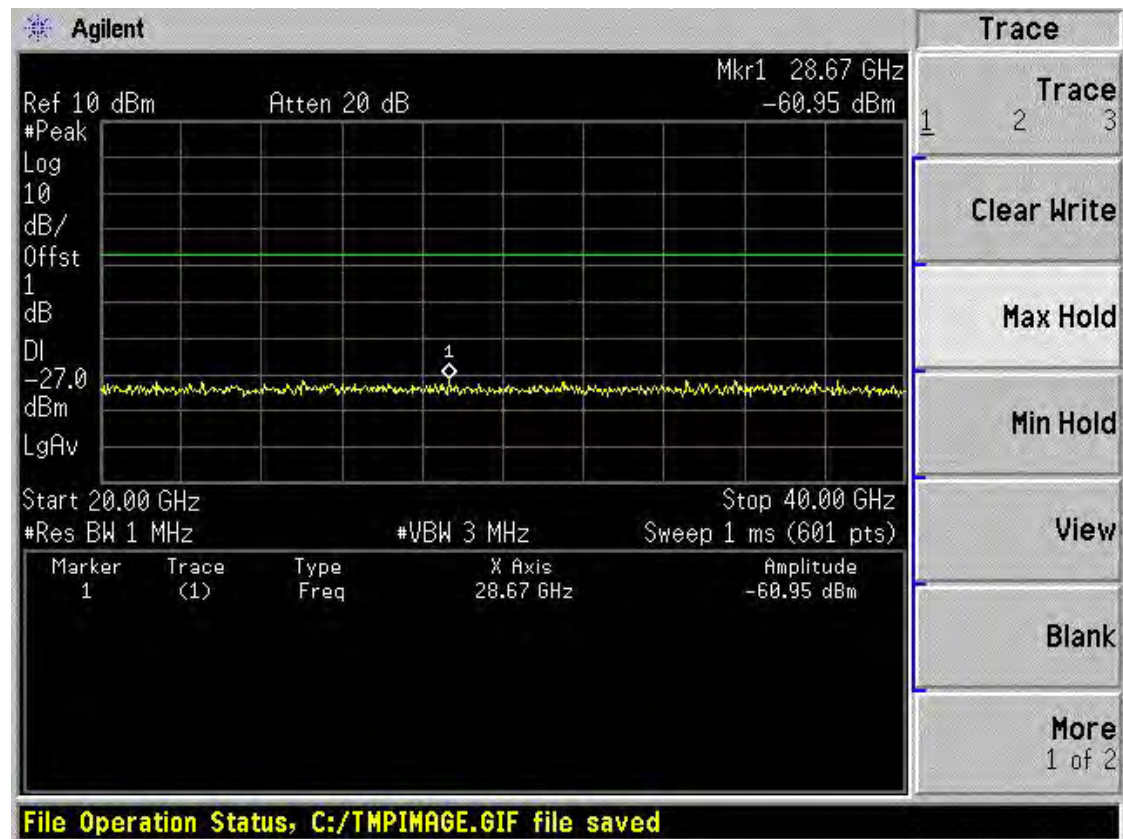


Date: 24.AUG.2015 16:31:52

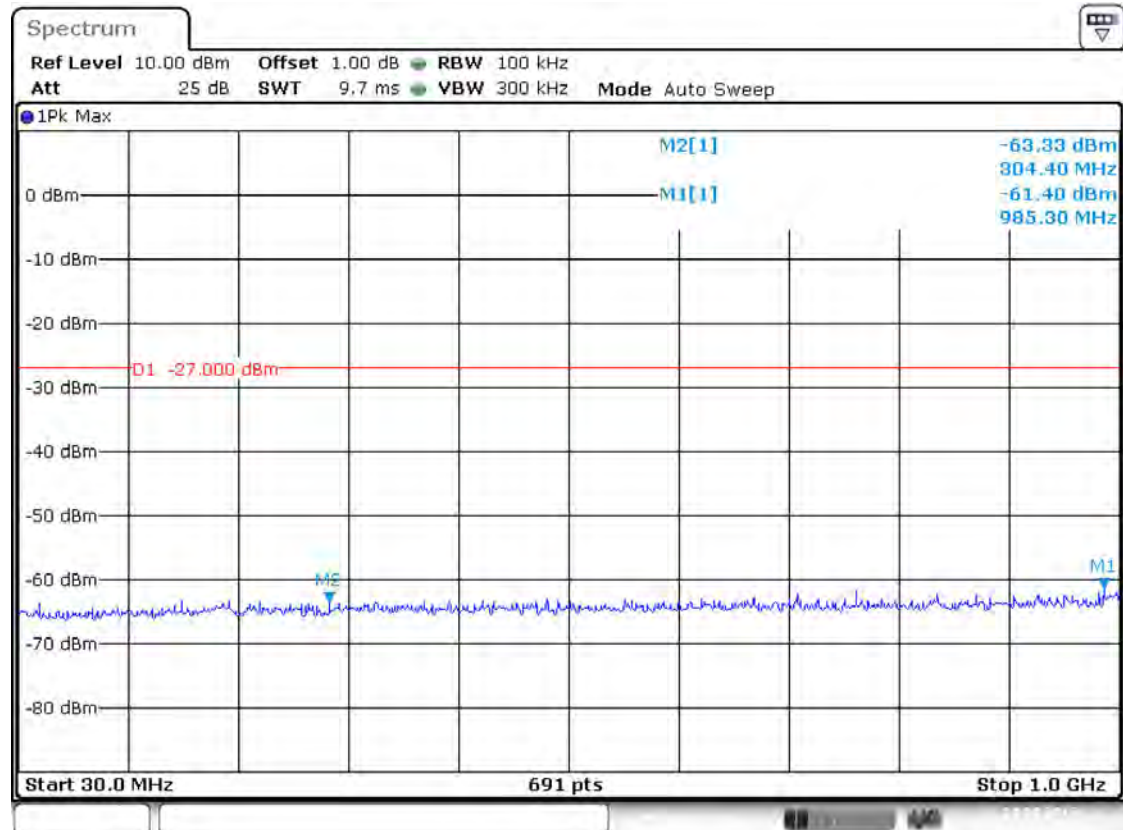
Band I 11ac(HT20) CH36 (1 ~ 20 GHz)



Band I 11ac(HT20) CH36 (20 ~ 40 GHz)

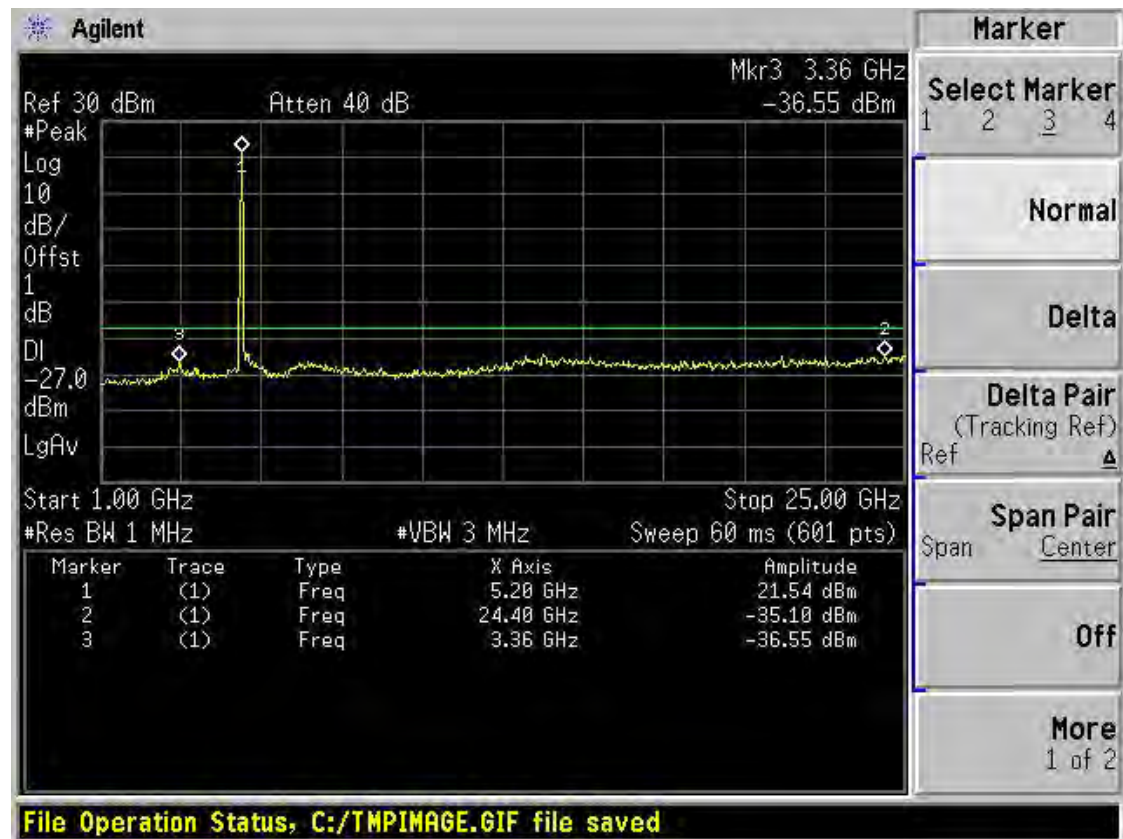


Band I 11ac(HT20) CH40 (30 ~ 1000 MHz)

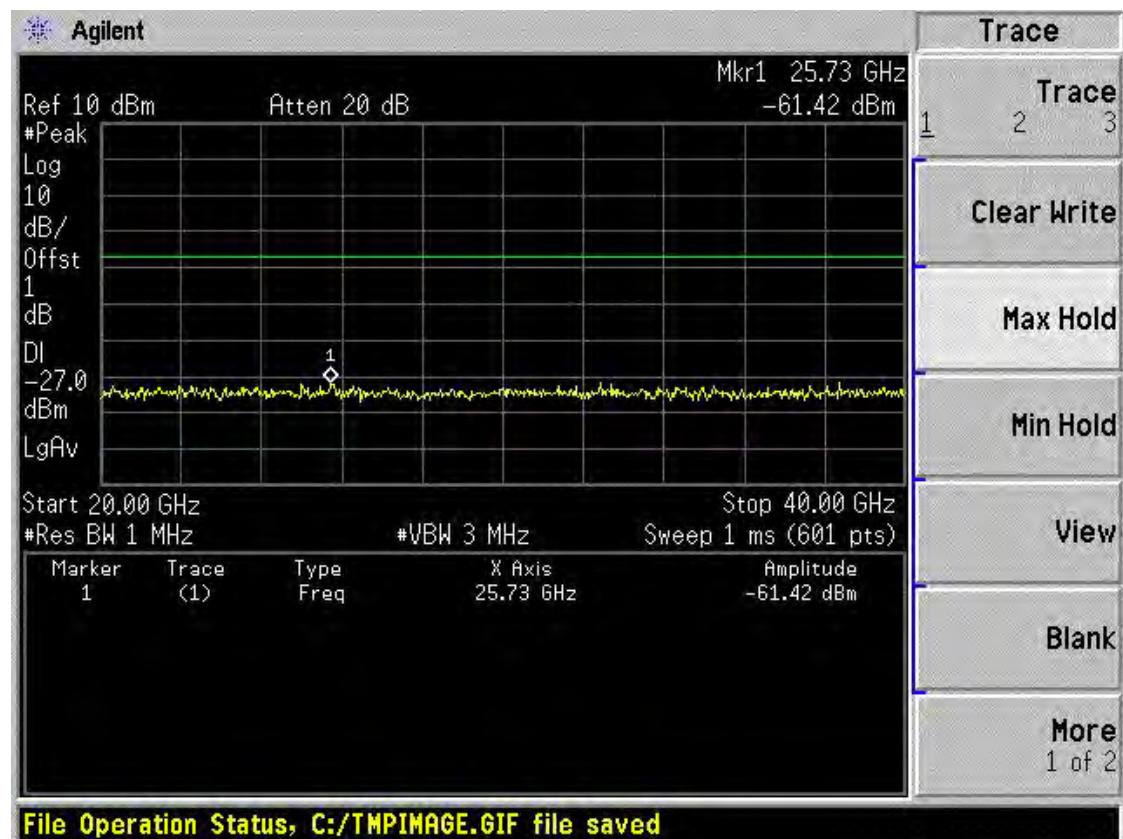


Date: 24.AUG.2015 16:33:07

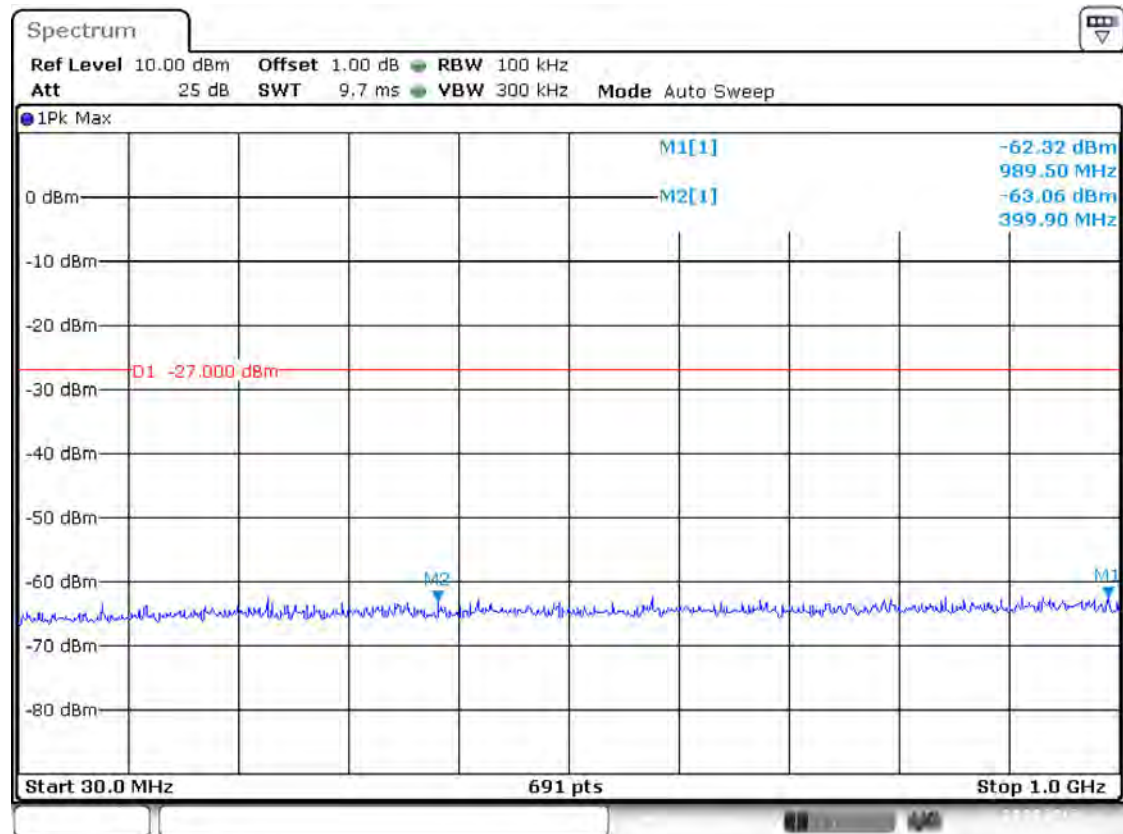
Band I 11ac(HT20) CH40 (1 ~ 20 GHz)



Band I 11ac(HT20) CH40 (20 ~ 40 GHz)

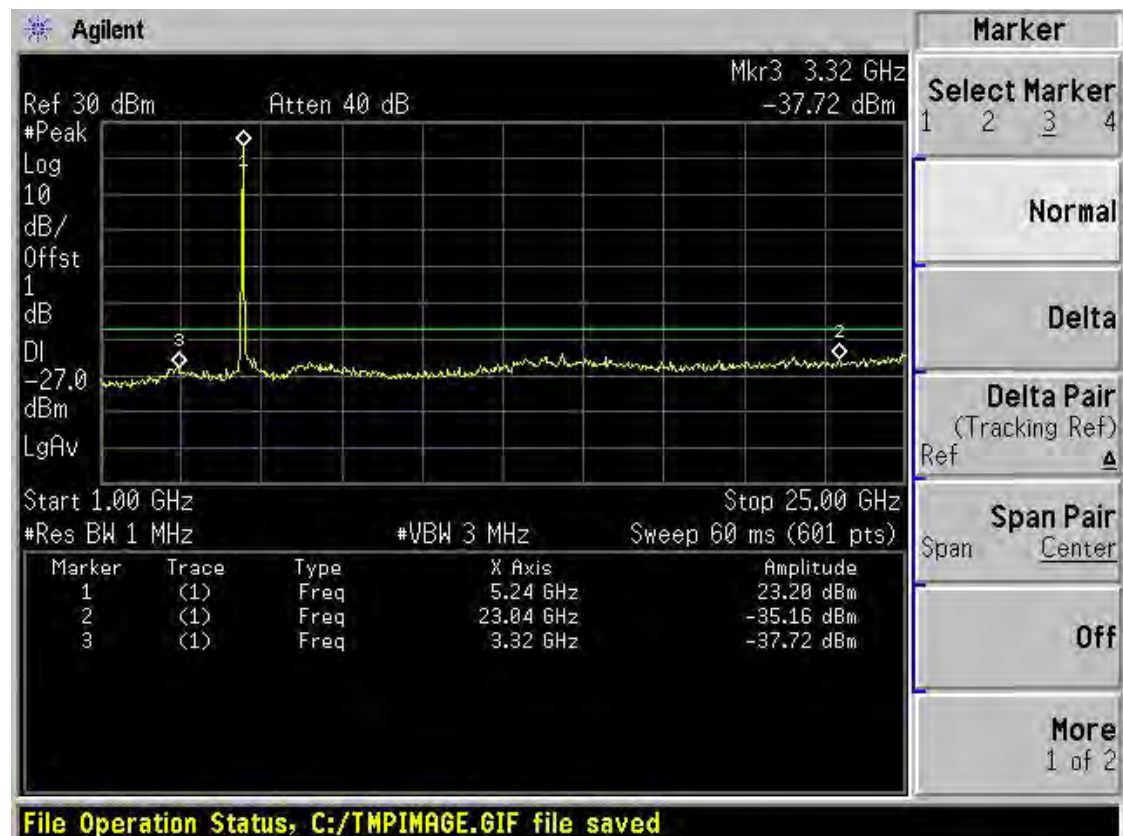


Band I 11ac(HT20) CH48 (30 ~ 1000 MHz)

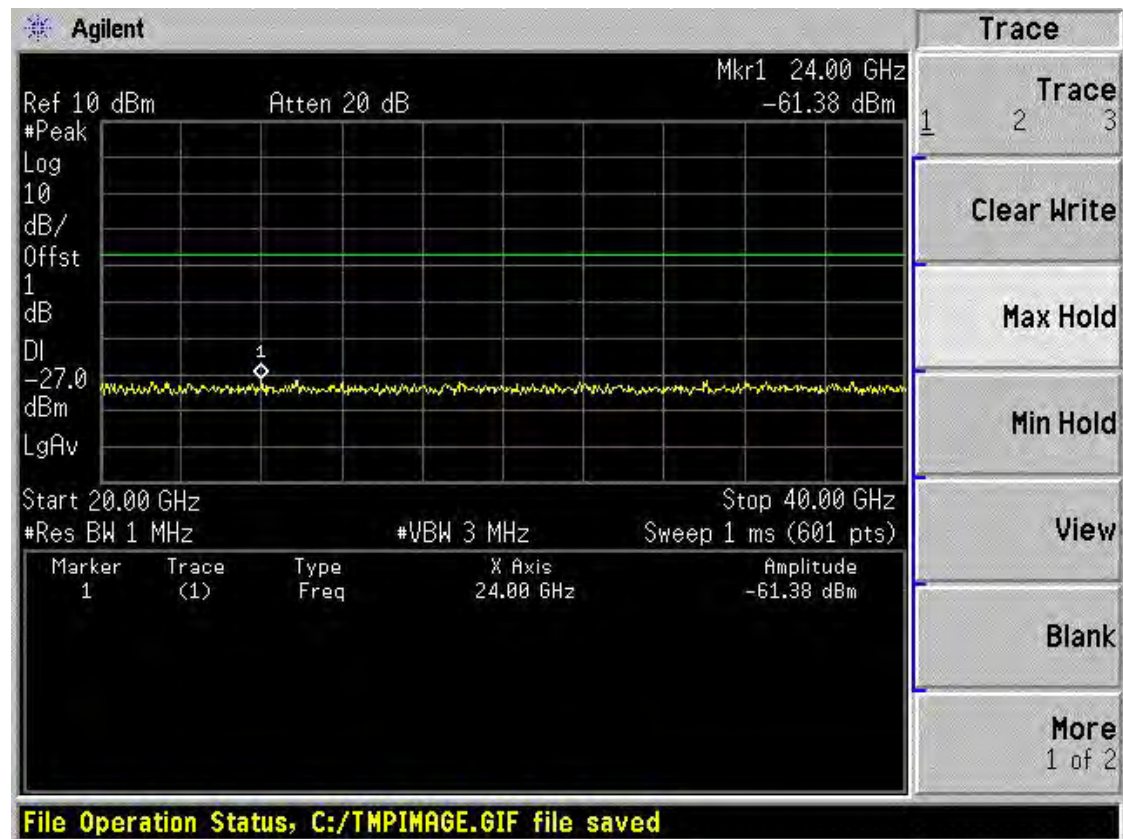


Date: 24.AUG.2015 16:33:42

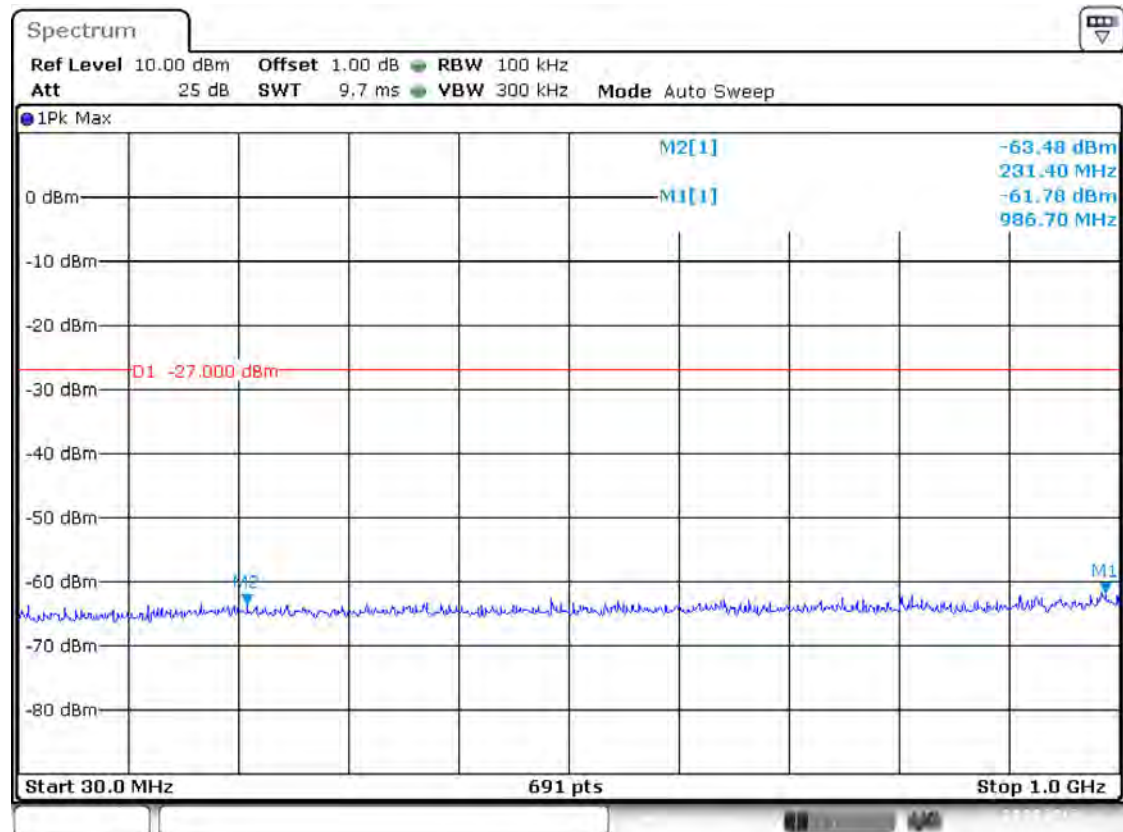
Band I 11ac(HT20) CH48 (1 ~ 20 GHz)



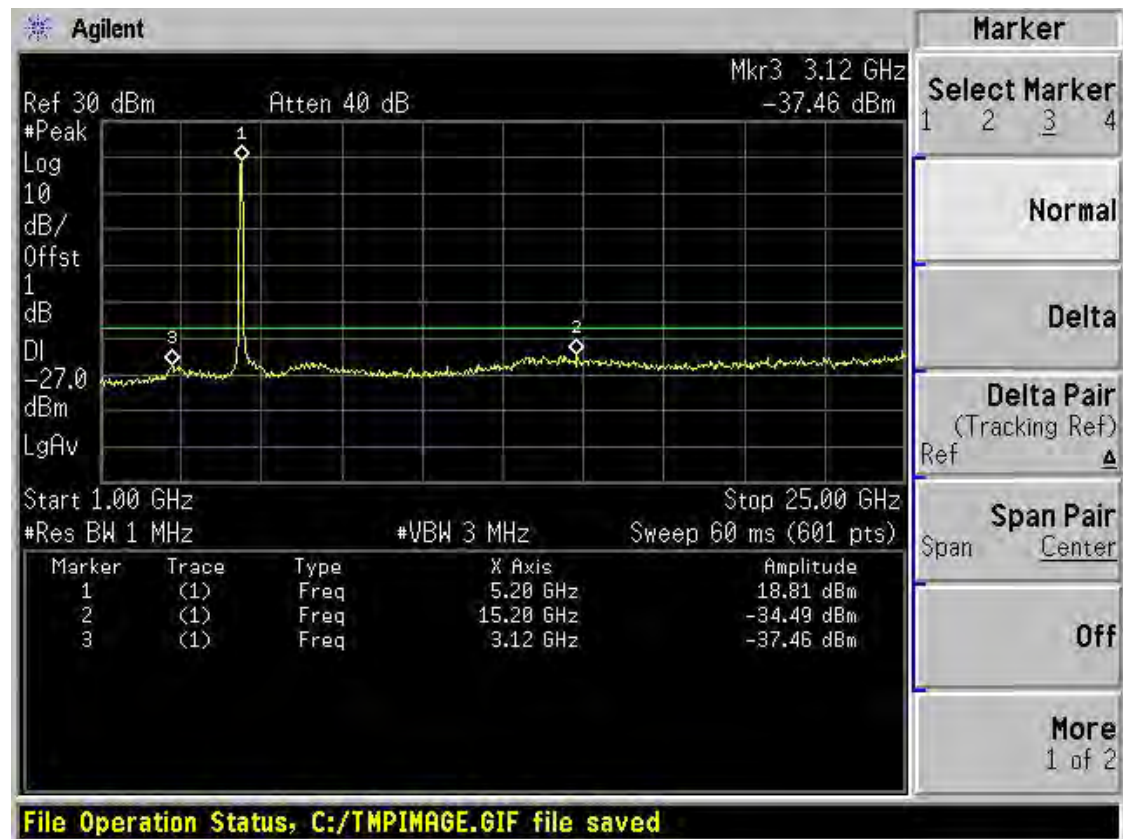
Band I 11ac(HT20) CH48 (20 ~ 40 GHz)



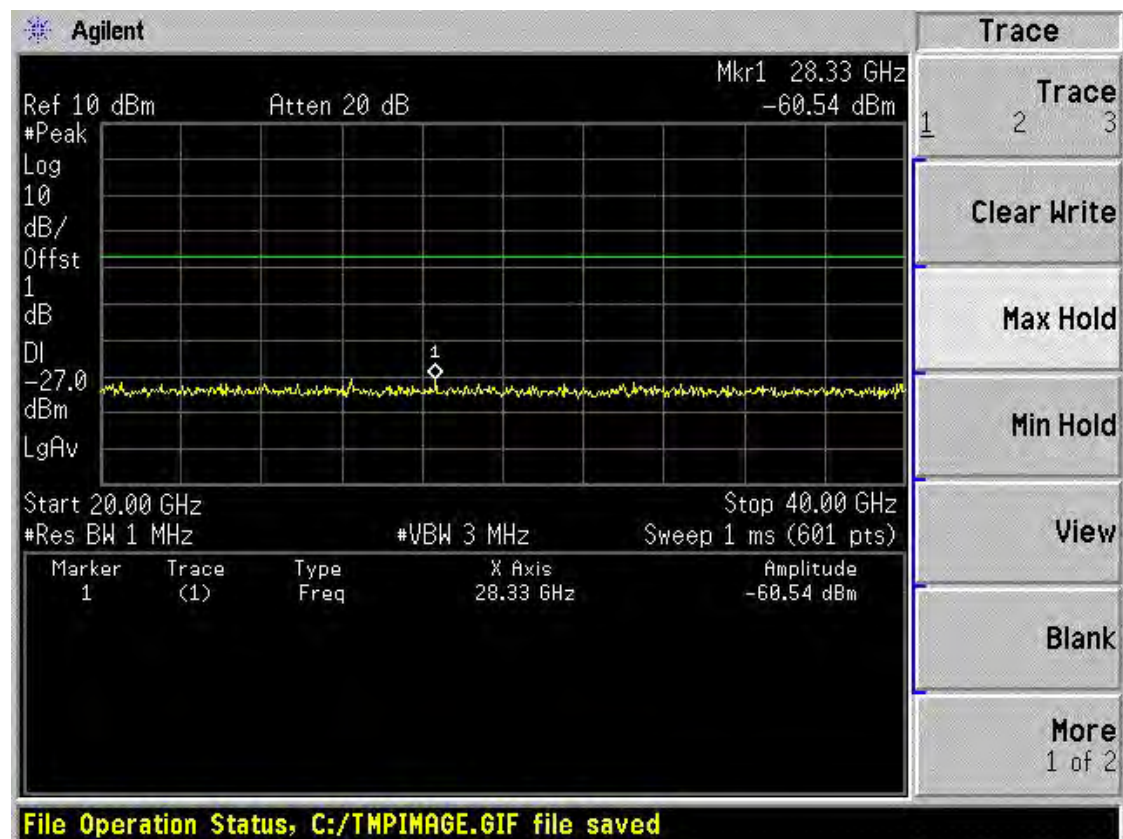
Band I 11ac(HT40) CH38 (30 ~ 1000 MHz)



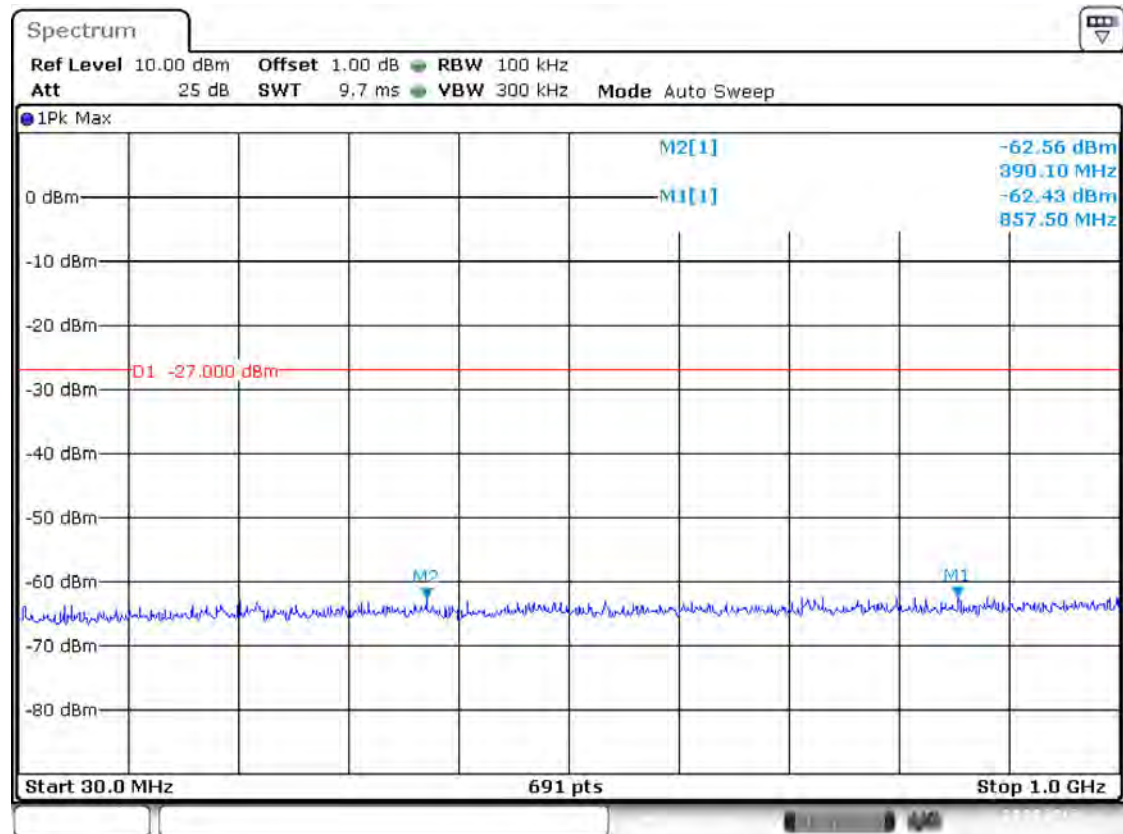
Band I 11ac(HT40) CH38 (1 ~ 20 GHz)



Band I 11ac(HT40) CH38 (20 ~ 40 GHz)

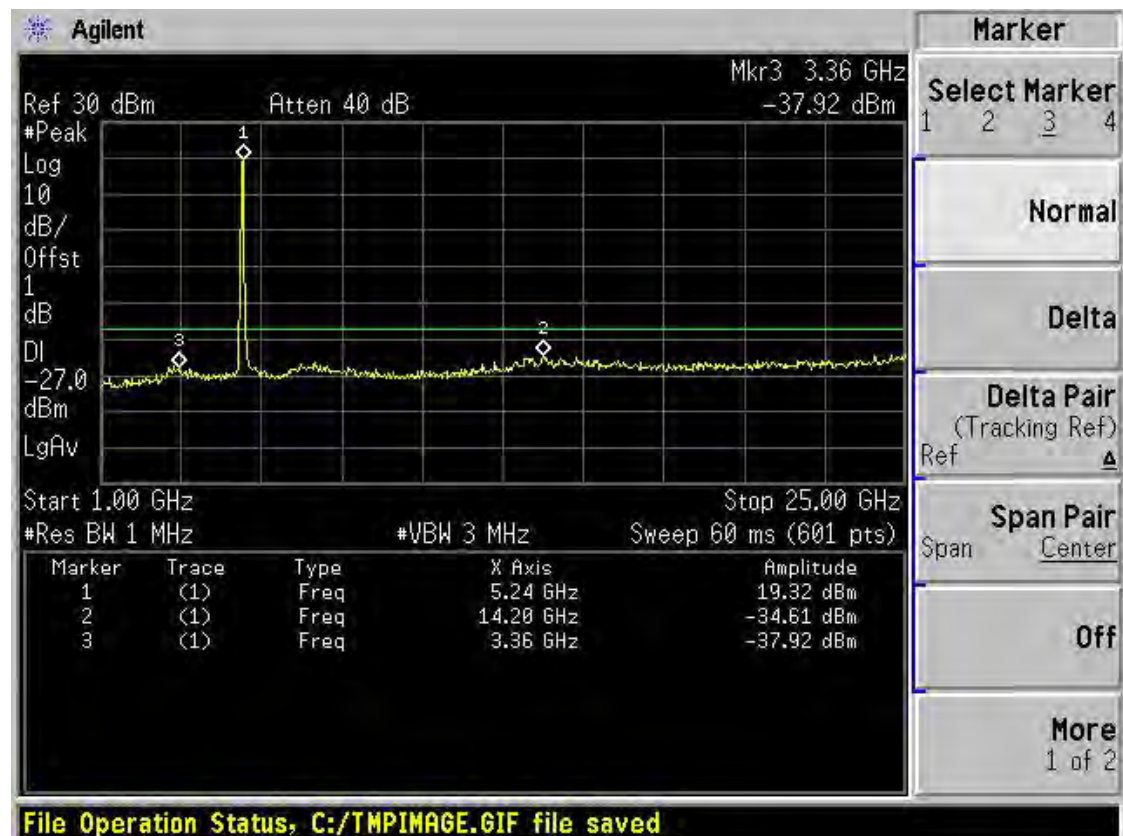


Band I 11ac(HT40) CH46 (30 ~ 1000 MHz)



Date: 24.AUG.2015 16:35:18

Band I 11ac(HT40) CH46 (1 ~ 20 GHz)



Agilent

Ref 10 dBm Atten 20 dB Mkr1 25.87 GHz
-61.76 dBm

#Peak
Log
10
dB/
Offst
1
dB
DI
-27.0
dBm
LgAv

Start 20.00 GHz Stop 40.00 GHz
#Res BW 1 MHz #VBW 3 MHz Sweep 1 ms (601 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-----------|------------|
| 1 | (1) | Freq | 25.87 GHz | -61.76 dBm |

Trace 1 2 3
Clear Write
Max Hold
Min Hold
View
Blank
More
1 of 2

File Operation Status, C:/TMPIMAGE.GIF file saved

Spectrum

Ref Level 10.00 dBm Offset 1.00 dB RBW 100 kHz
 Att 25 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep

1Pk Max

M2[1] -62.00 dBm 199.20 MHz
 M1[1] -61.82 dBm 990.90 MHz

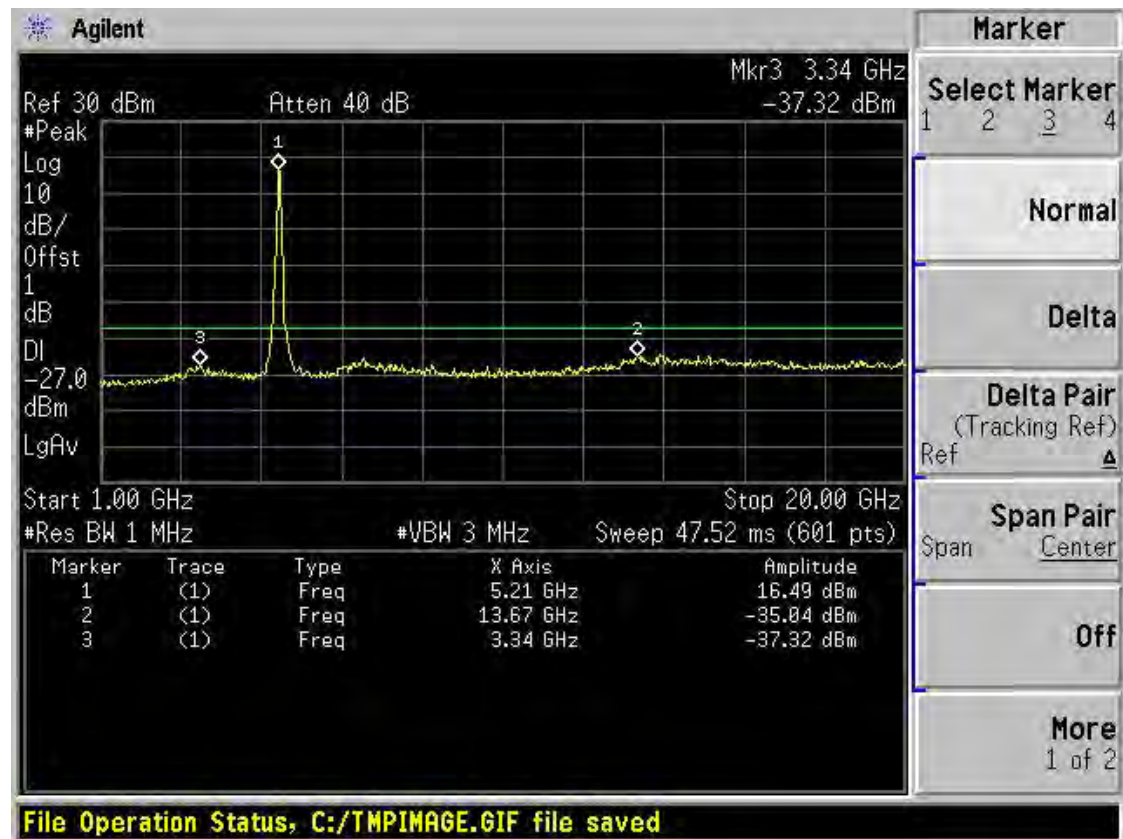
D1 -27.000 dBm

M2 -62.00 dBm
 M1 -61.82 dBm

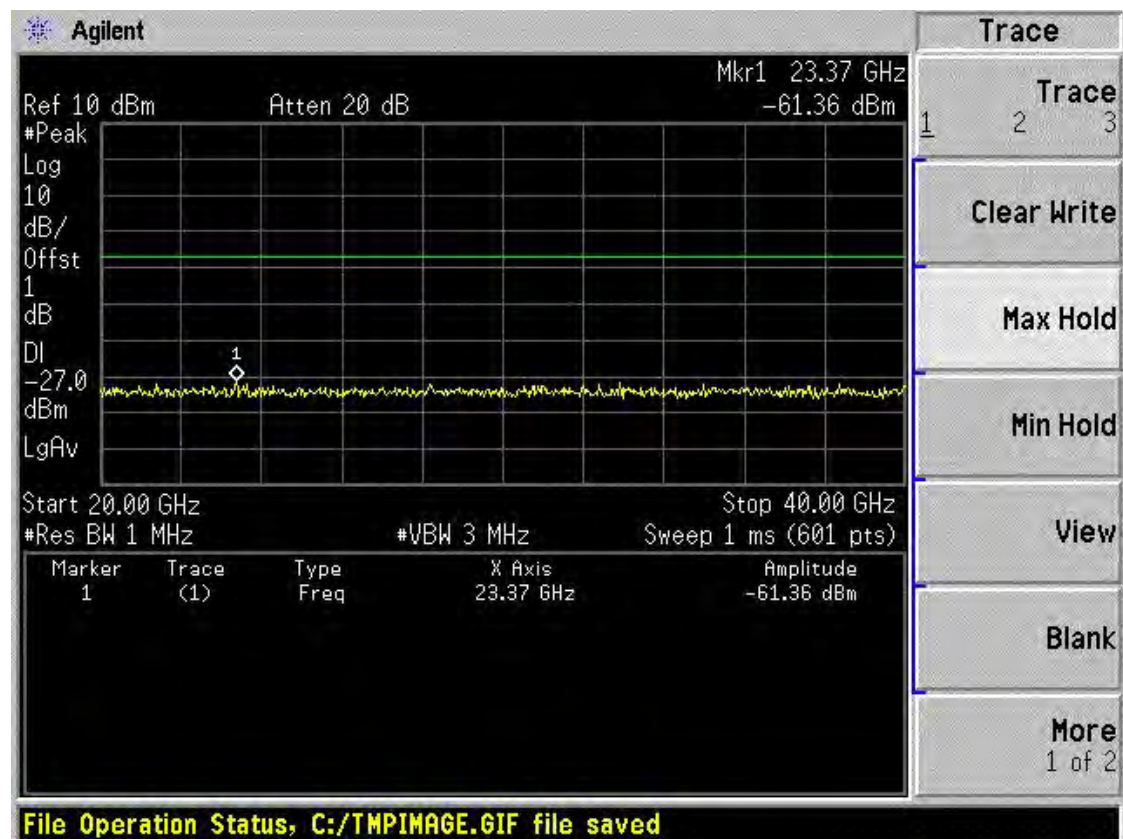
Start 30.0 MHz 691 pts Stop 1.0 GHz

Date: 24.AUG.2015 16:36:18

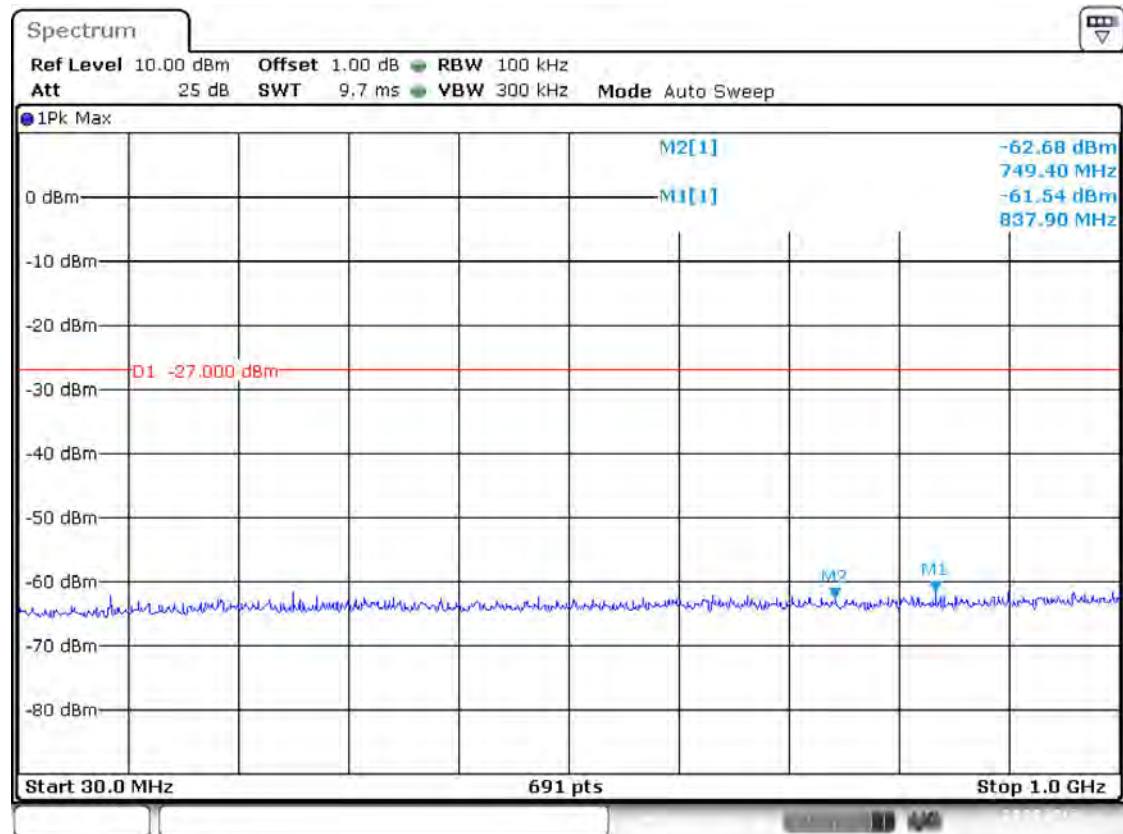
Band I 11ac(HT80) CH42 (1 ~ 20 GHz)



Band I 11ac(HT80) CH42 (20 ~ 40 GHz)

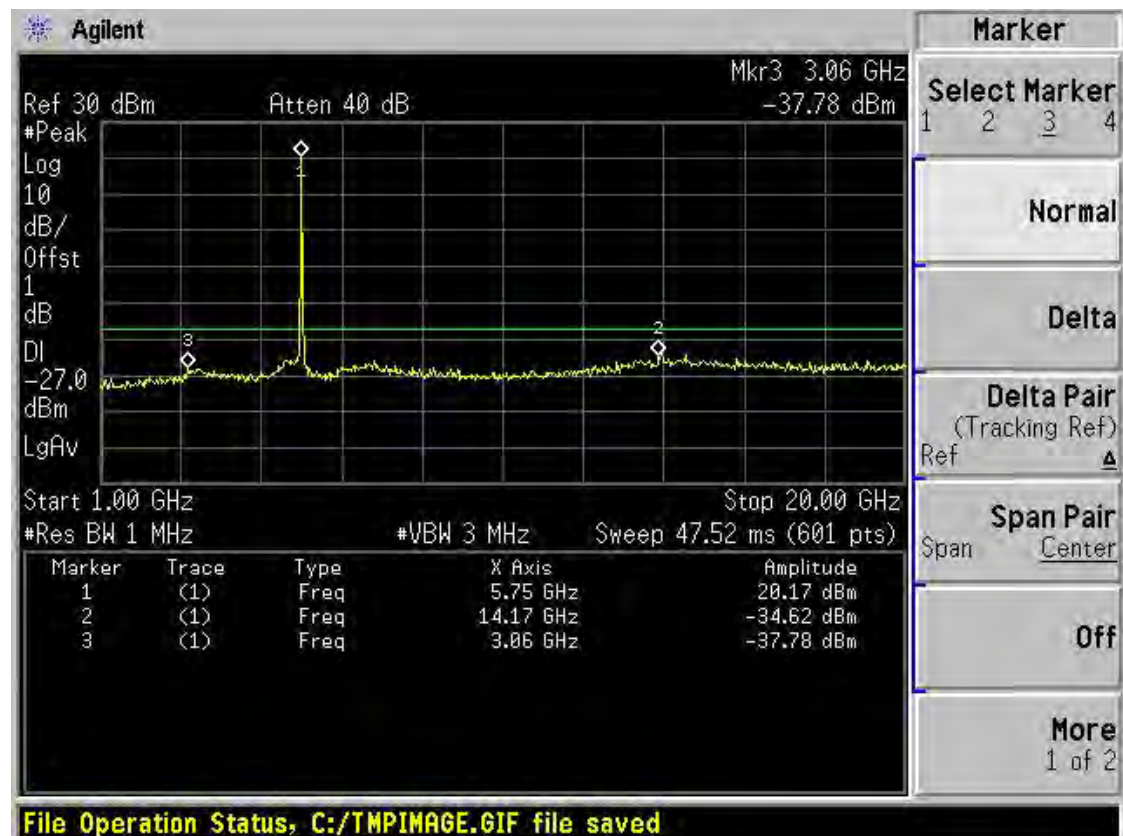


Band IV 11a CH149 (30 ~ 1000 MHz)

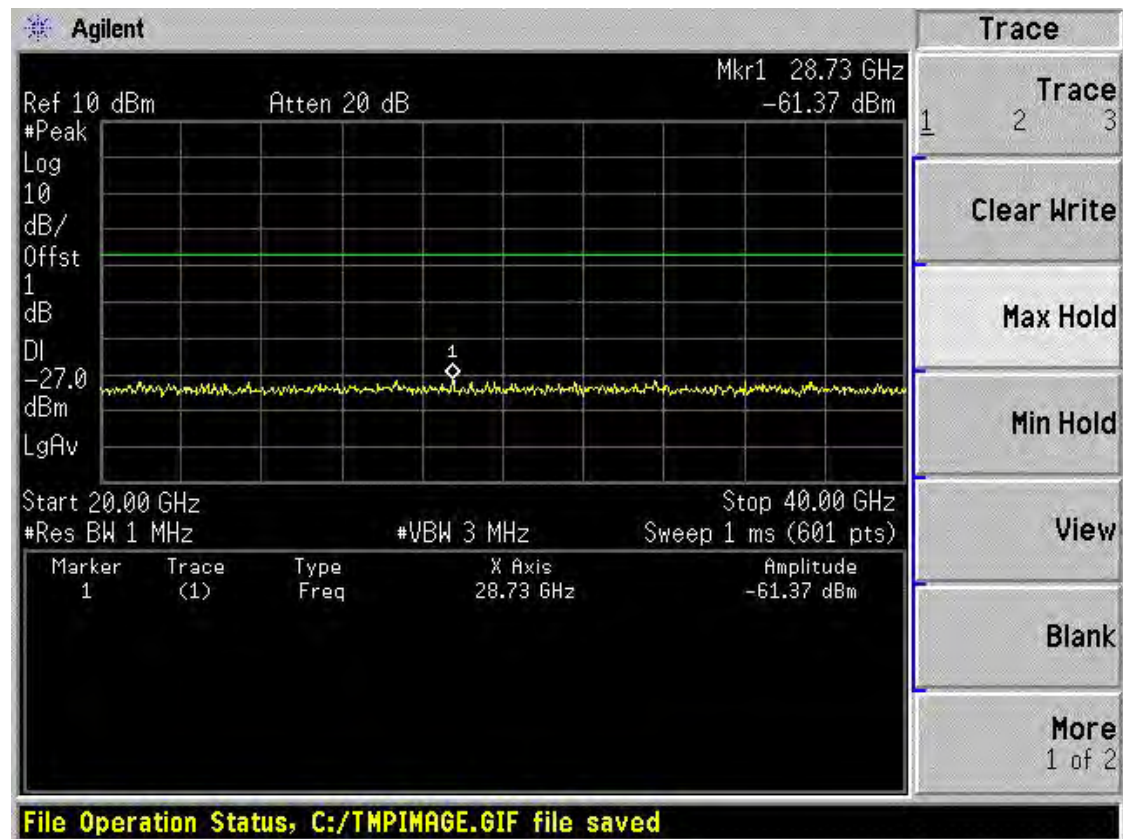


Date: 24.AUG.2015 16:48:04

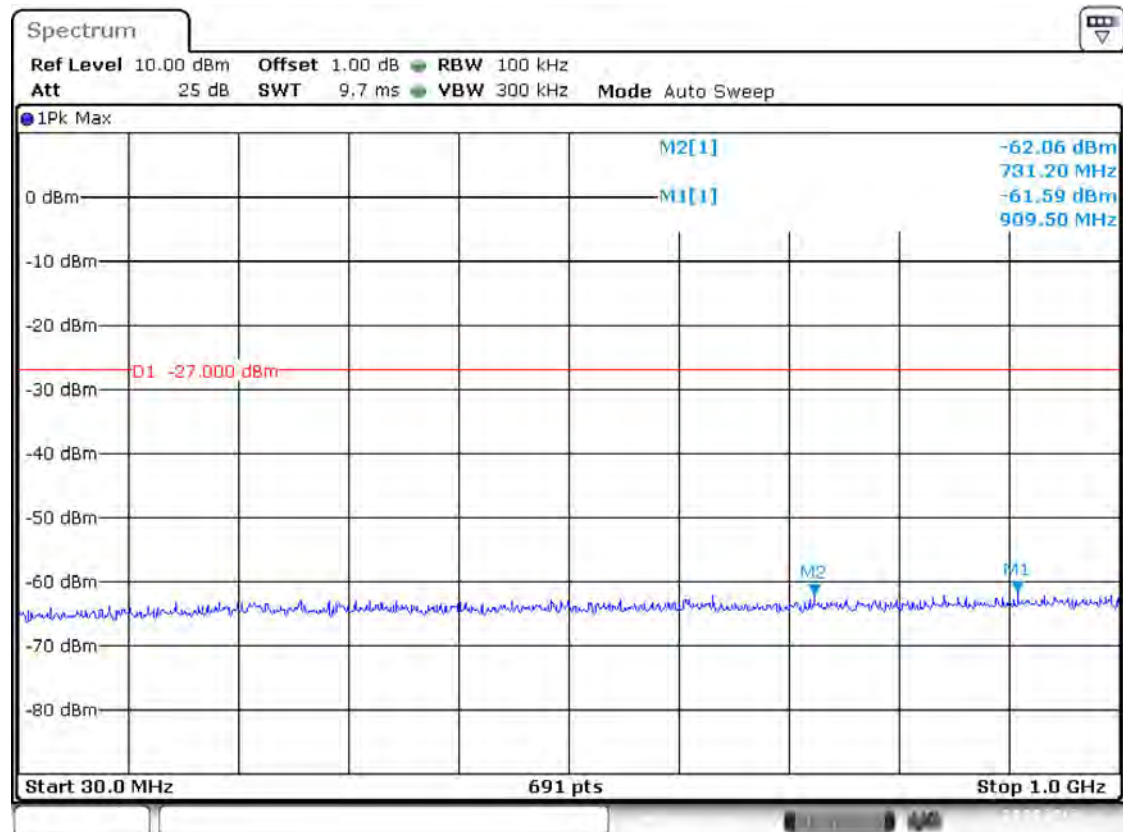
Band IV 11a CH149 (1 ~ 20 GHz)



Band IV 11a CH149 (20 ~ 40 GHz)

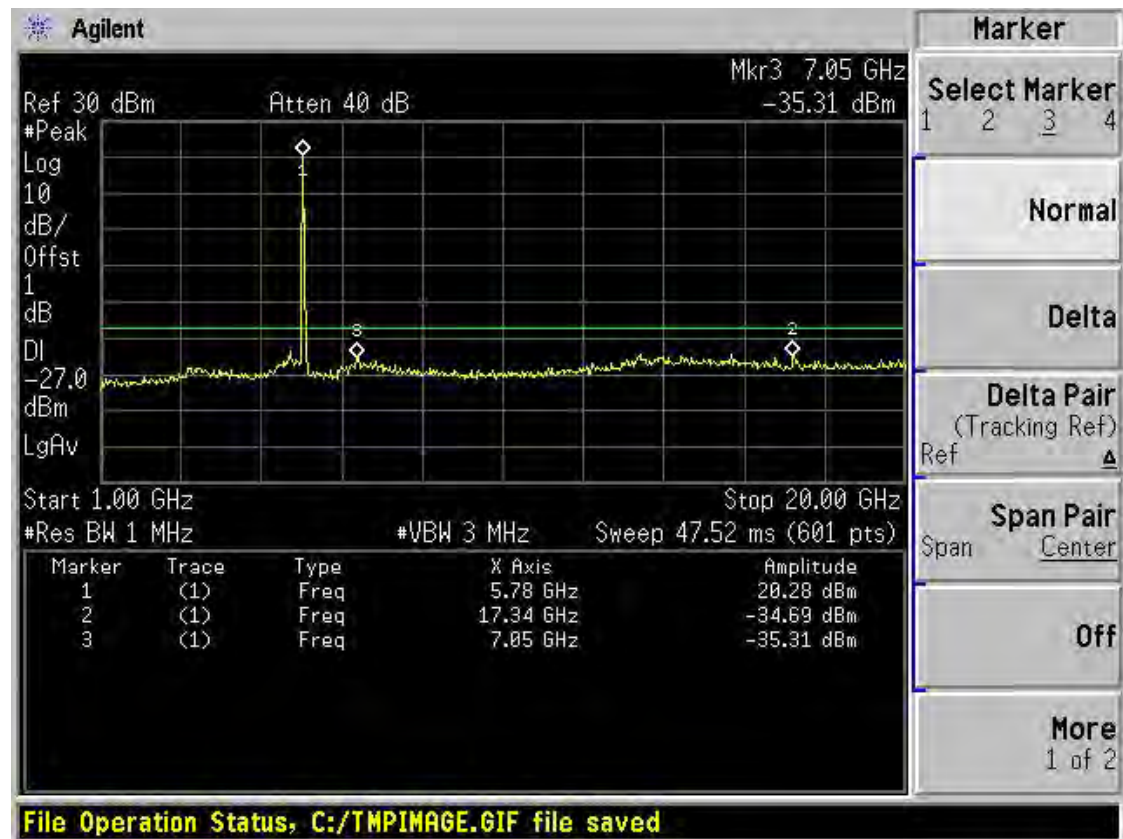


Band IV 11a CH157 (30 ~ 1000 MHz)

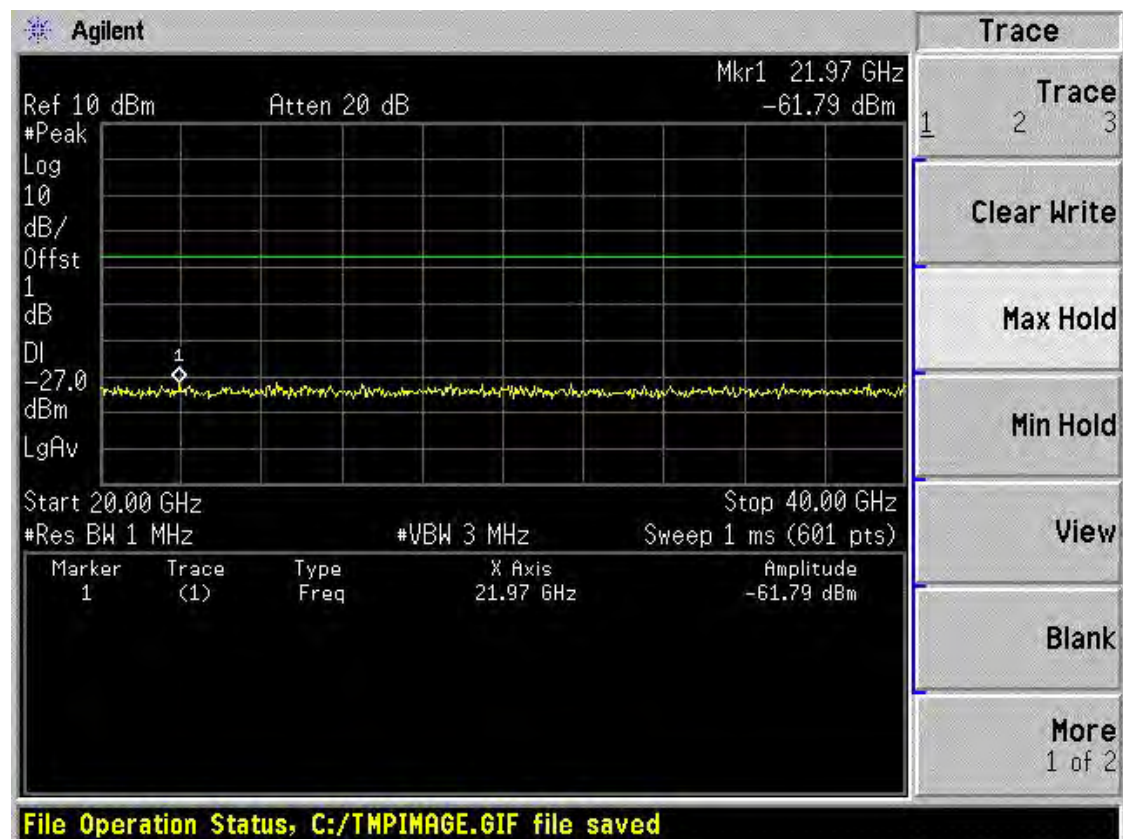


Date: 24.AUG.2015 16:49:50

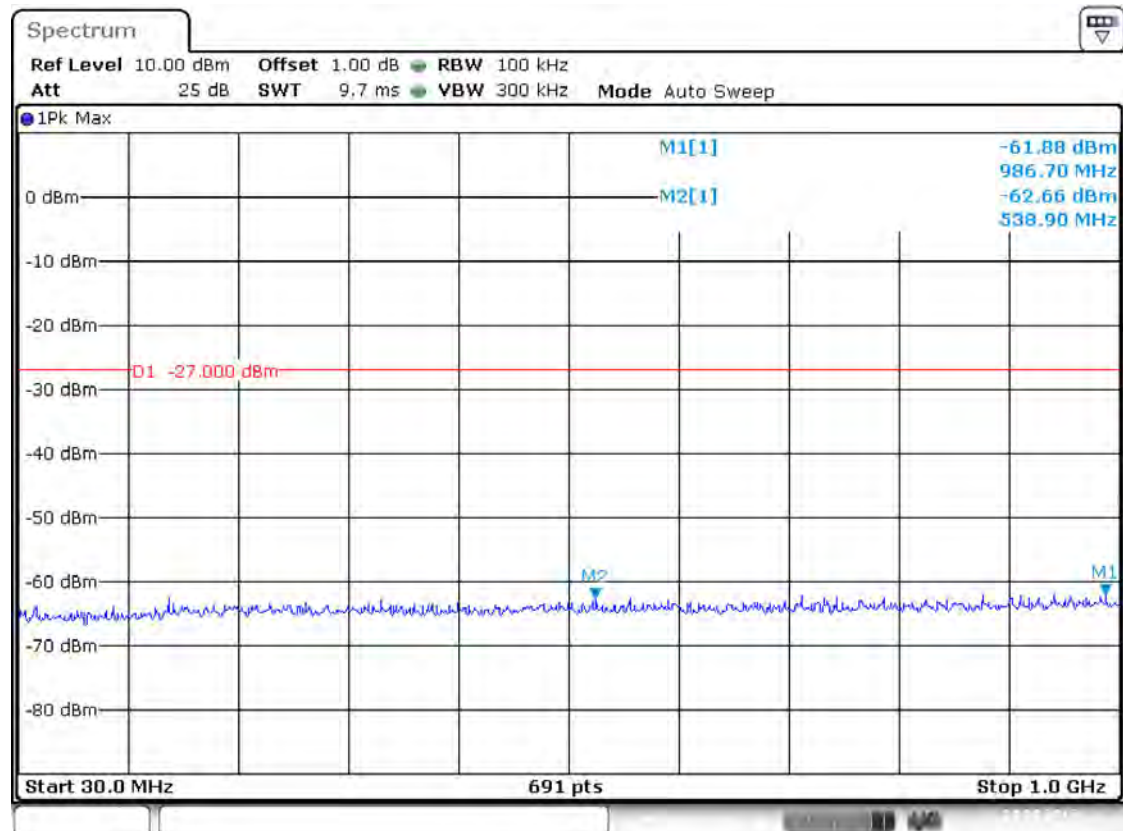
Band IV 11a CH157 (1 ~ 20 GHz)



Band IV 11a CH157 (20 ~ 40 GHz)

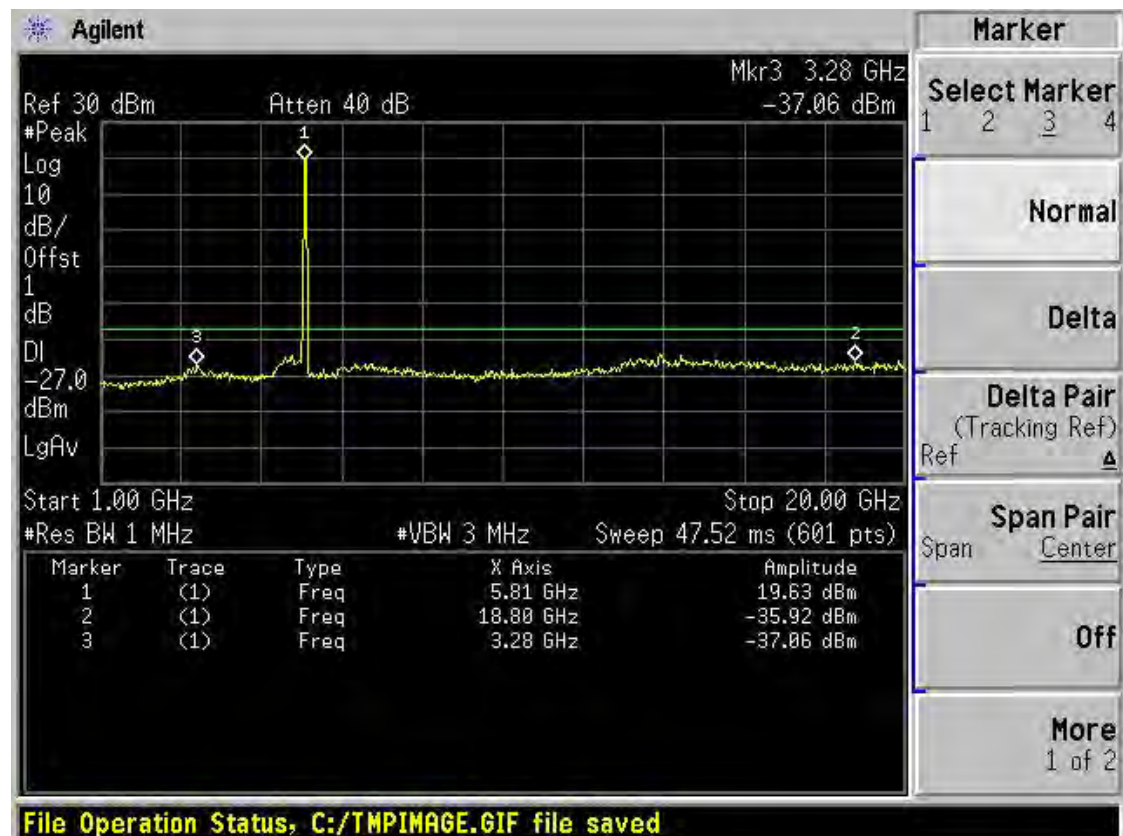


Band IV 11a CH165 (30 ~ 1000 MHz)

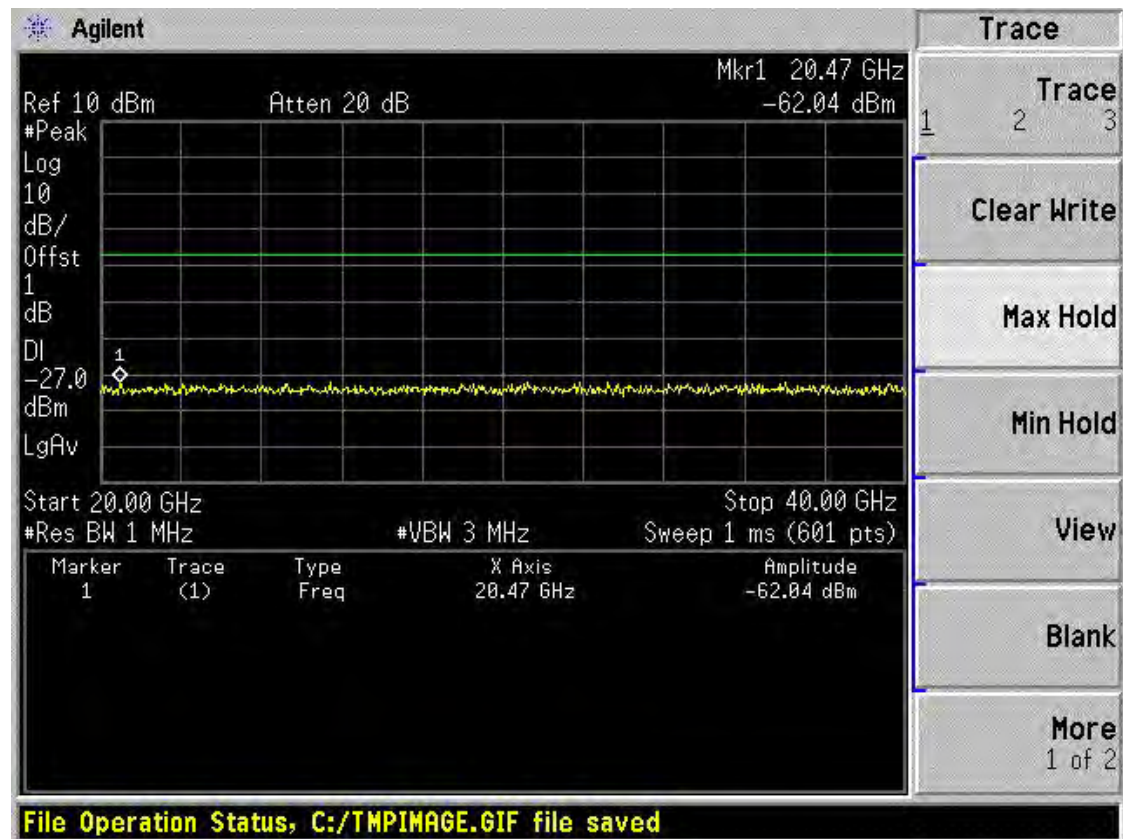


Date: 24.AUG.2015 16:51:13

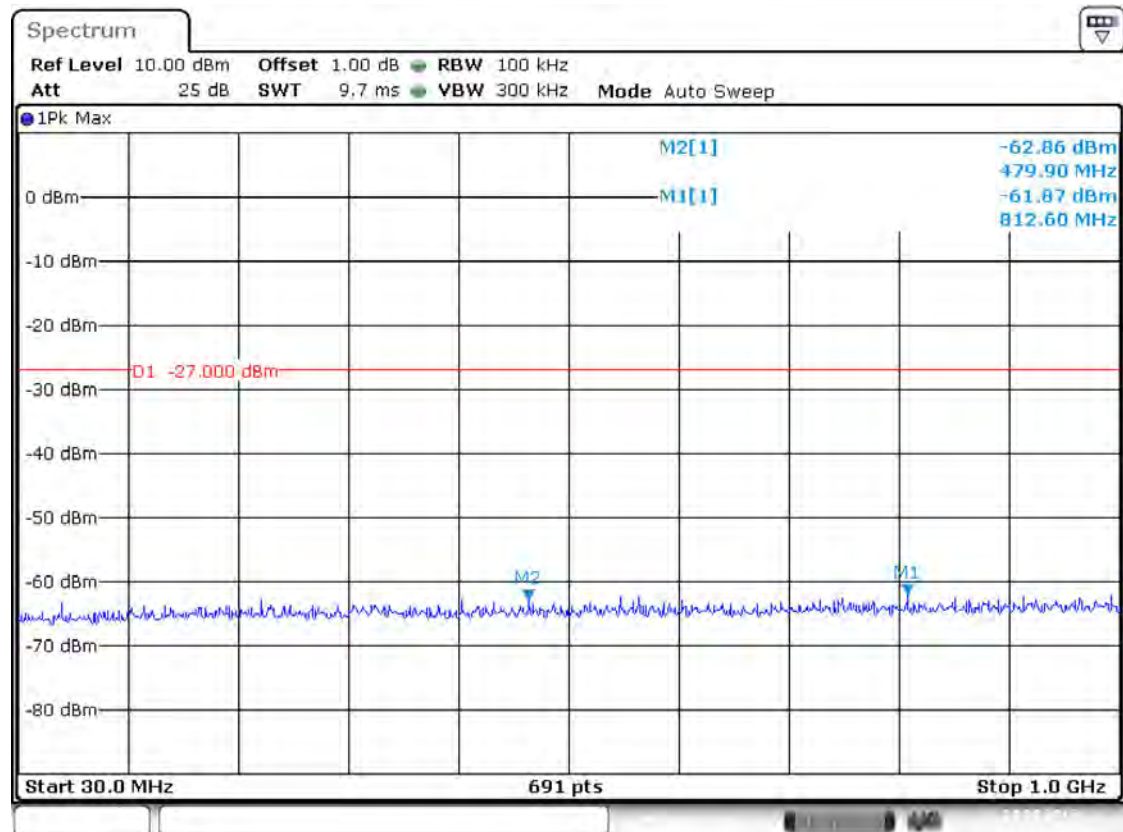
Band IV 11a CH165 (1 ~ 20 GHz)



Band IV 11a CH165 (20 ~ 40 GHz)

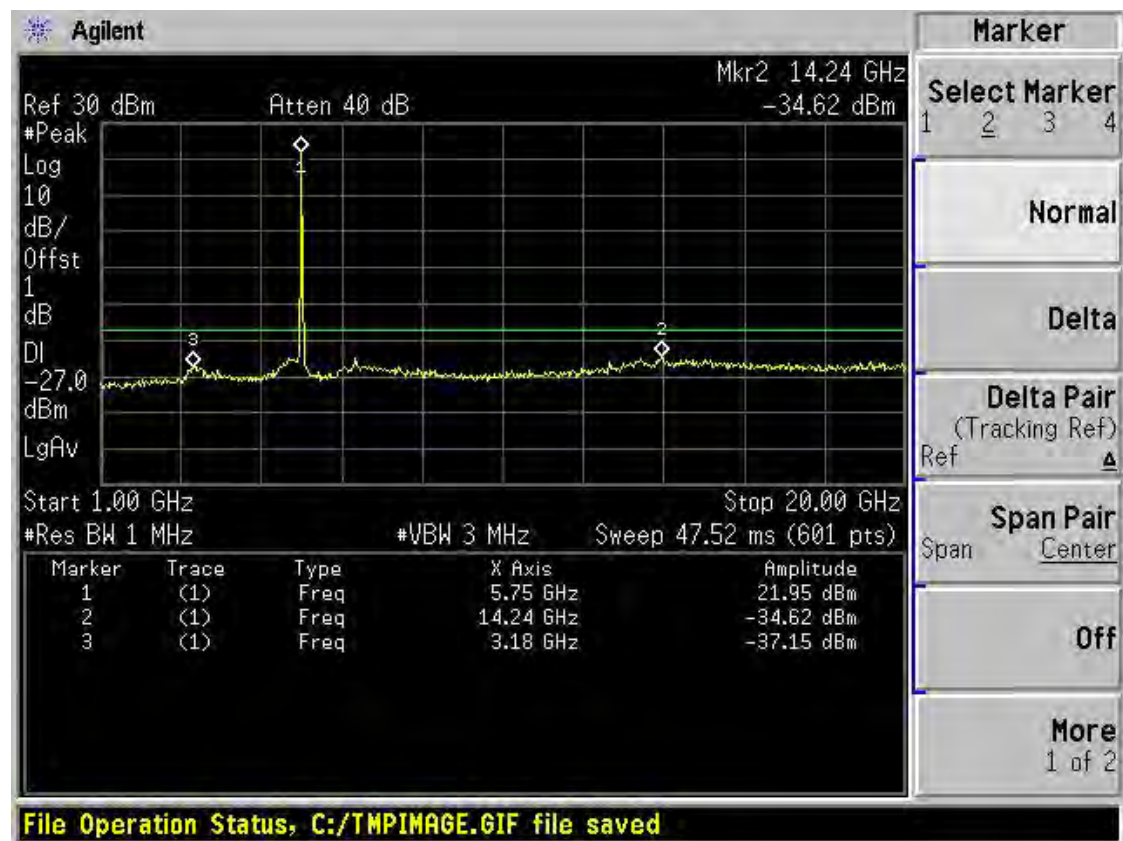


Band IV 11n(HT20) CH149 (30 ~ 1000 MHz)

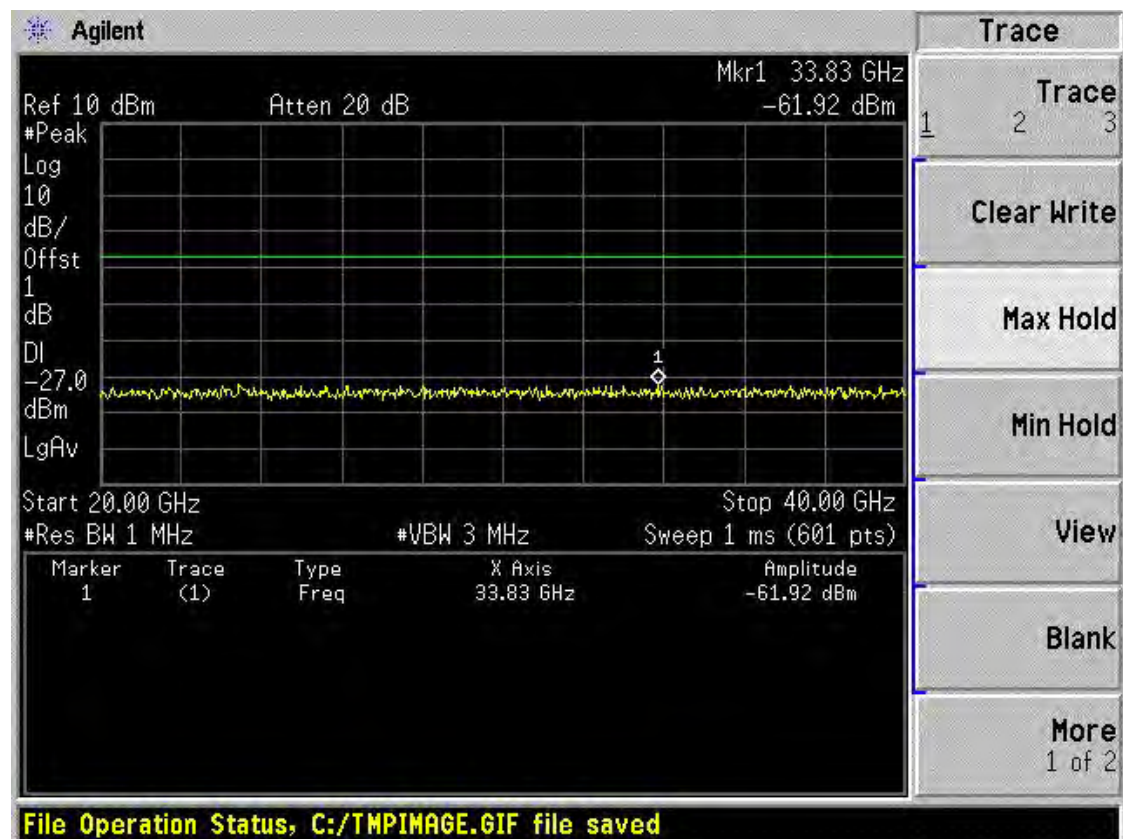


Date: 24.AUG.2015 16:54:40

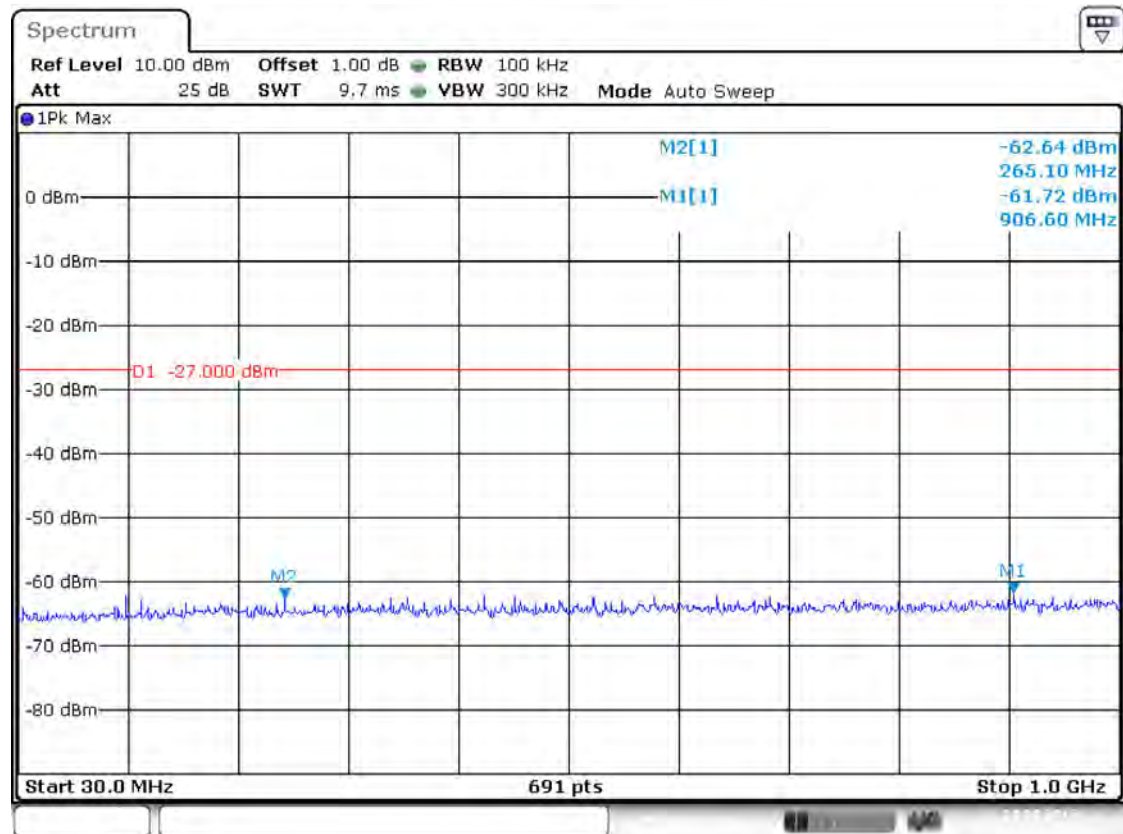
Band IV 11n(HT20) CH149 (1 ~ 20 GHz)



Band IV 11n(HT20) CH149 (20 ~ 40 GHz)

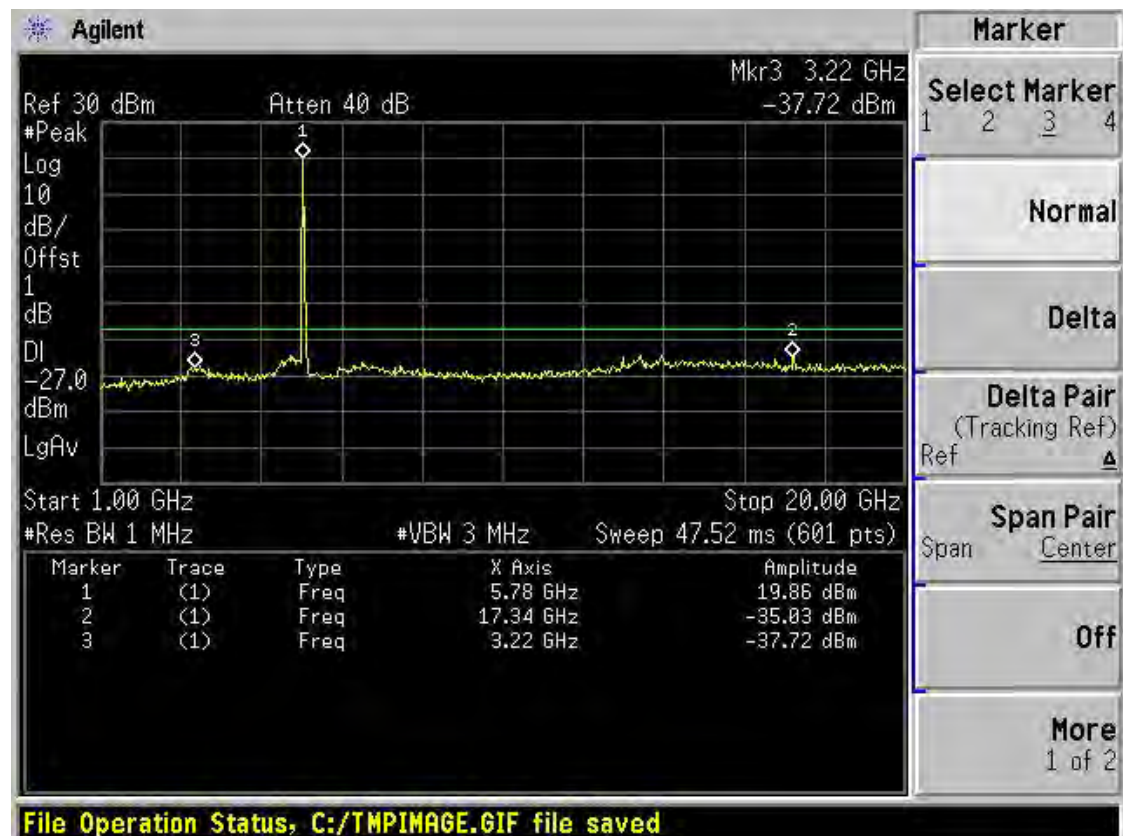


Band IV 11n(HT20) CH157 (30 ~ 1000 MHz)

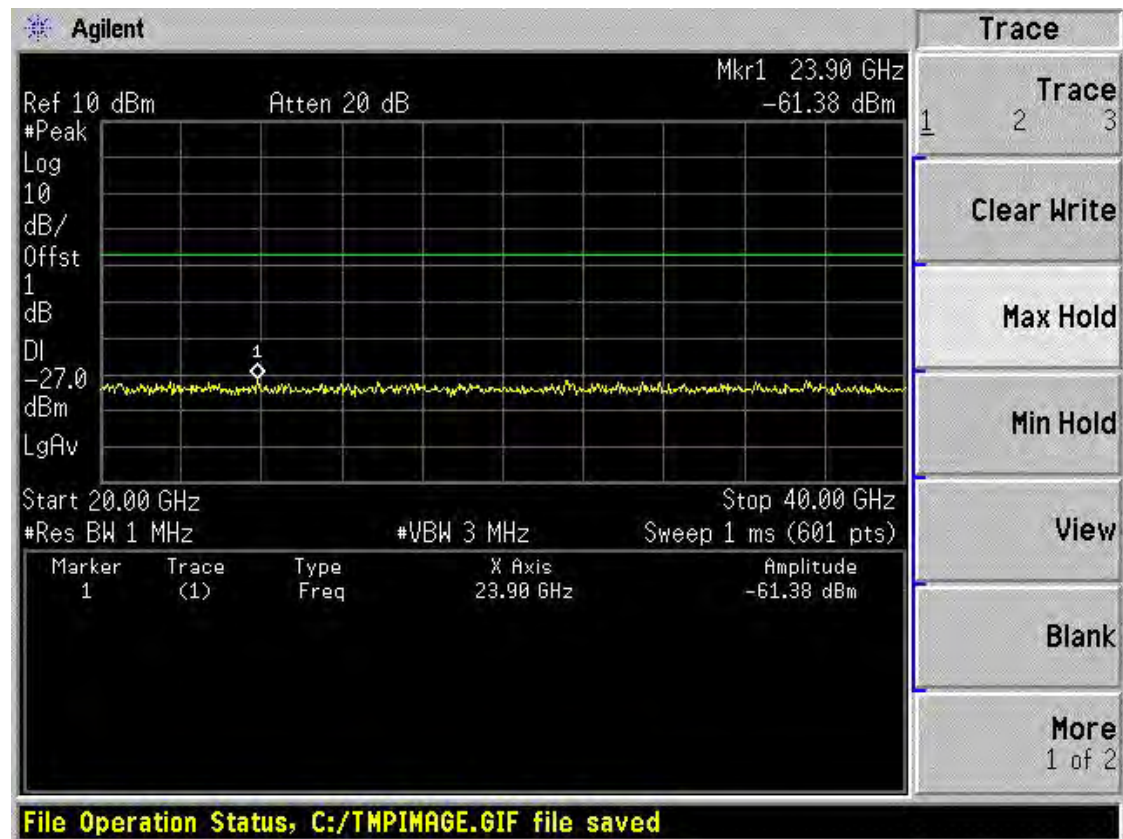


Date: 24.AUG.2015 16:55:41

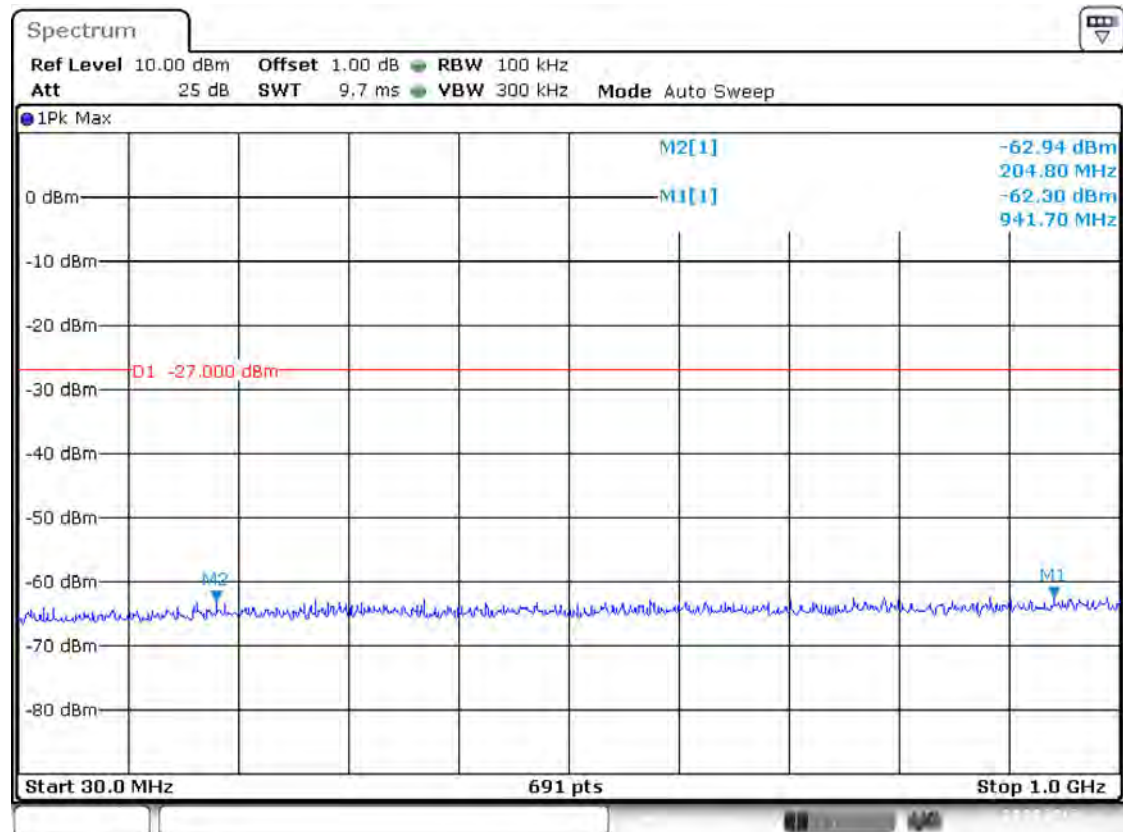
Band IV 11n(HT20) CH157 (1 ~ 20 GHz)



Band IV 11n(HT20) CH157 (20 ~ 40 GHz)



Band IV 11n(HT20) CH165 (30 ~ 1000 MHz)



Agilent

Ref 30 dBm Atten 40 dB Mkr2 15.16 GHz -33.82 dBm

#Peak Log 10 dB/Offst 1 dB DI -27.0 dBm LgAv

Start 1.00 GHz Stop 20.00 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 47.52 ms (601 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-----------|------------|
| 1 | (1) | Freq | 5.84 GHz | 19.42 dBm |
| 2 | (1) | Freq | 15.16 GHz | -33.82 dBm |
| 3 | (1) | Freq | 3.38 GHz | -38.15 dBm |

Marker

Select Marker 1 2 3 4

Normal

Delta

Delta Pair (Tracking Ref)

Ref

Span Pair

Span Center

Off

More 1 of 2

File Operation Status, C:/TMPIMAGE.GIF file saved

The screenshot displays the Agilent spectrum analyzer interface. The main display area shows a signal trace with a peak marker labeled '1' at 32.77 GHz and -61.40 dBm. The settings for the measurement are as follows:

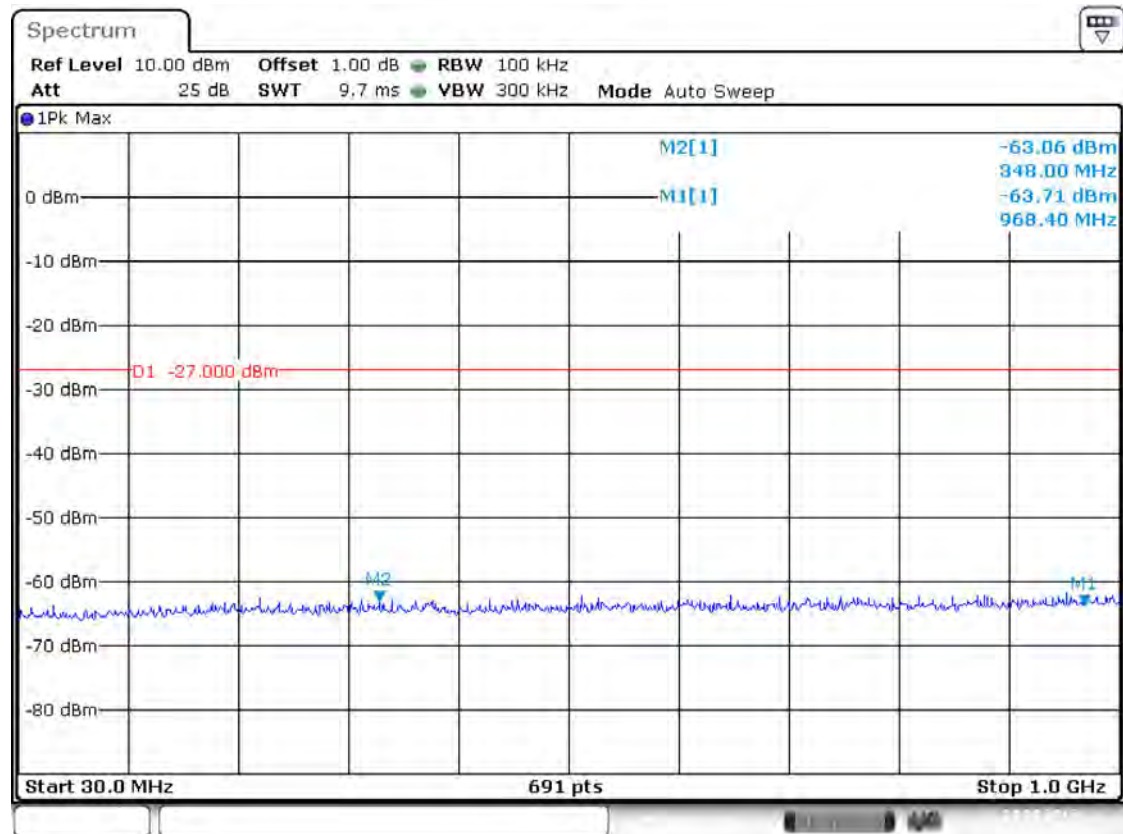
- Ref 10 dBm
- Atten 20 dB
- Mkr1 32.77 GHz
- 61.40 dBm
- #Peak
- Log
- 10
- dB/
- Offst
- 1
- dB
- DI
- 27.0
- dBm
- LgAv
- Start 20.00 GHz
- Stop 40.00 GHz
- #Res BW 1 MHz
- #VBW 3 MHz
- Sweep 1 ms (601 pts)

The right-hand side of the interface features a vertical stack of buttons for trace management:

- Trace
- Trace 1 2 3
- Clear Write
- Max Hold
- Min Hold
- View
- Blank
- More 1 of 2

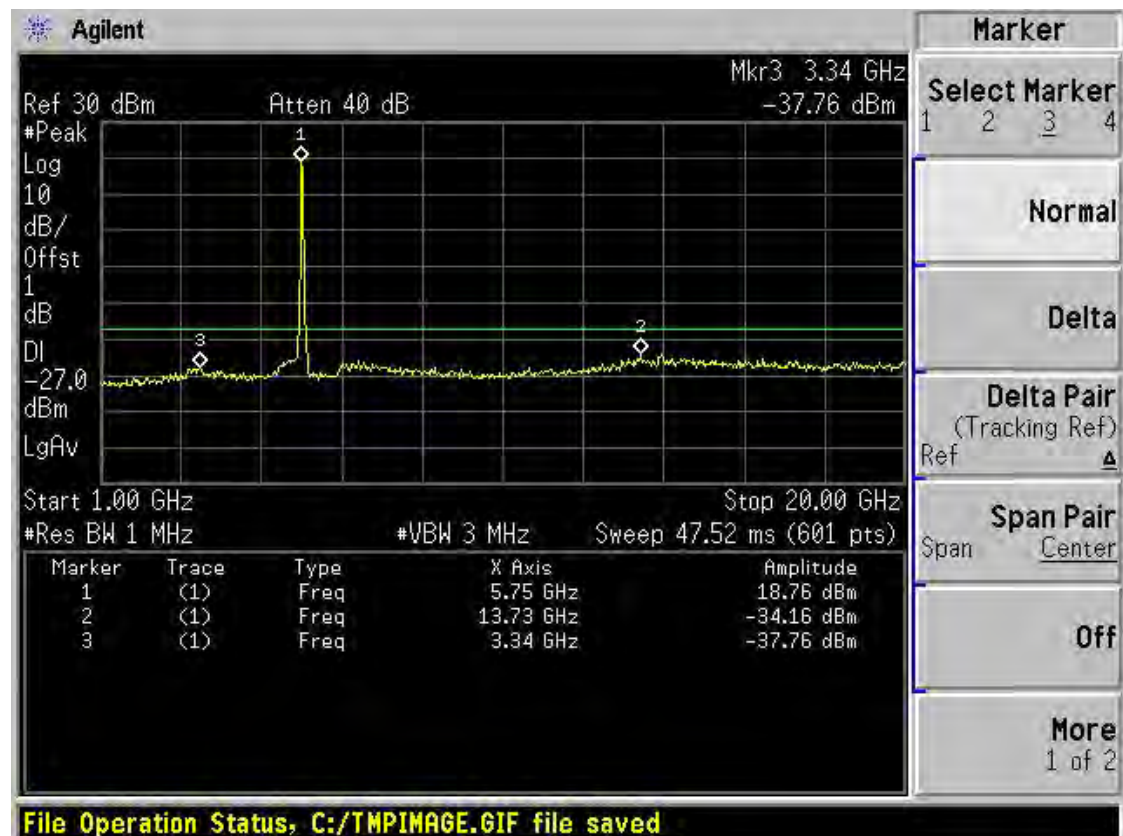
At the bottom of the screen, a status bar indicates: File Operation Status, C:/TMPIMAGE.GIF file saved

Band IV 11n(HT40) CH151 (30 ~ 1000 MHz)

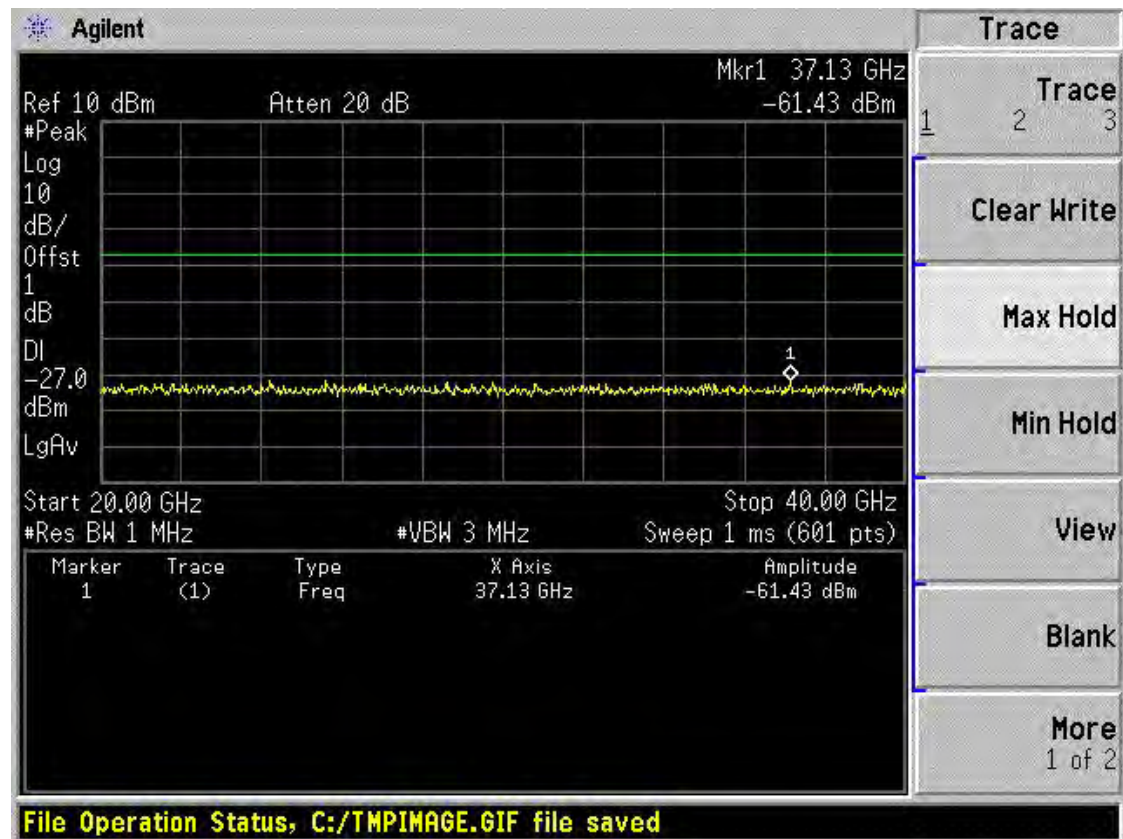


Date: 24.AUG.2015 17:01:47

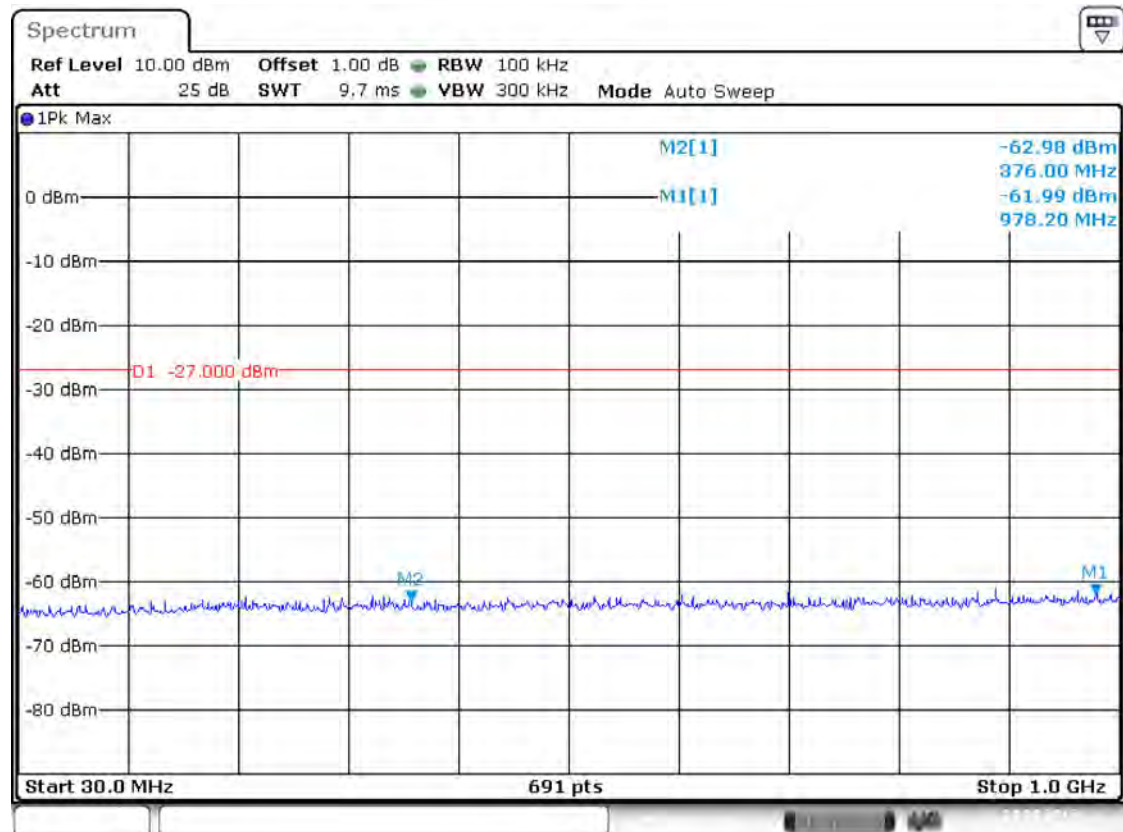
Band IV 11n(HT40) CH151 (1 ~ 20 GHz)



Band IV 11n(HT40) CH151 (20 ~ 40 GHz)

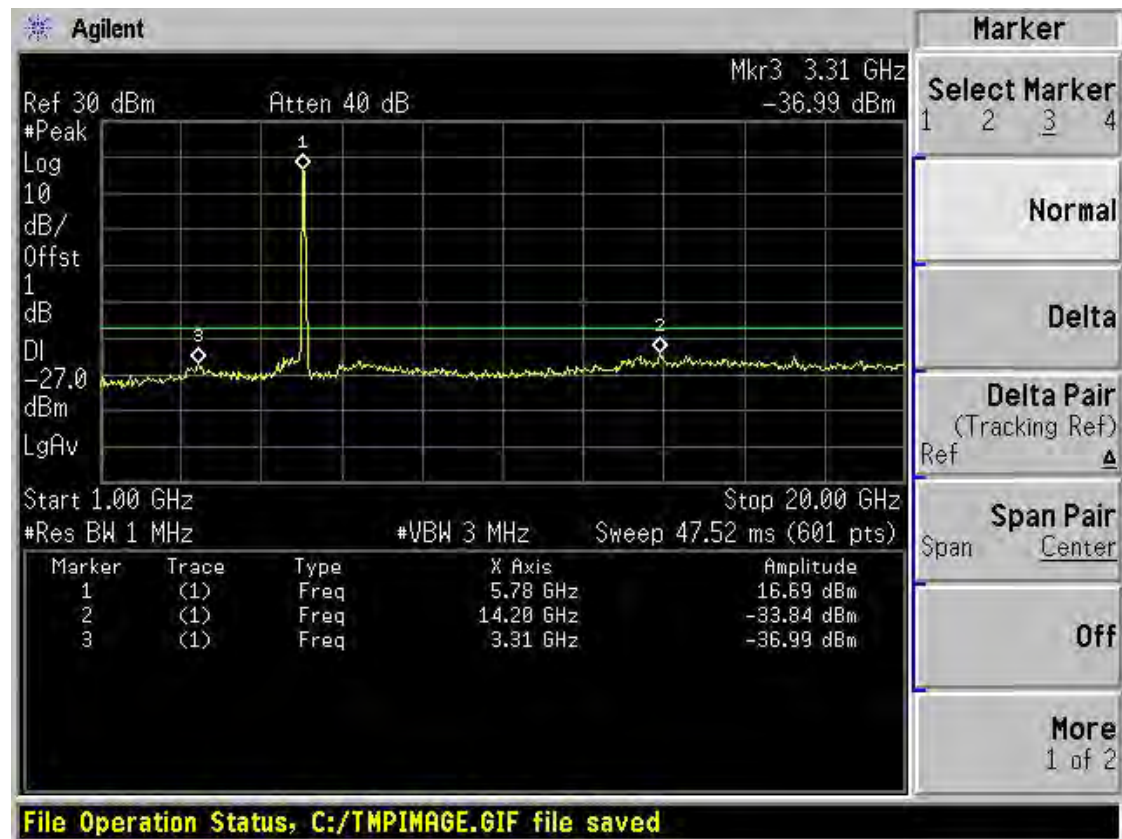


Band IV 11n(HT40) CH159 (30 ~ 1000 MHz)

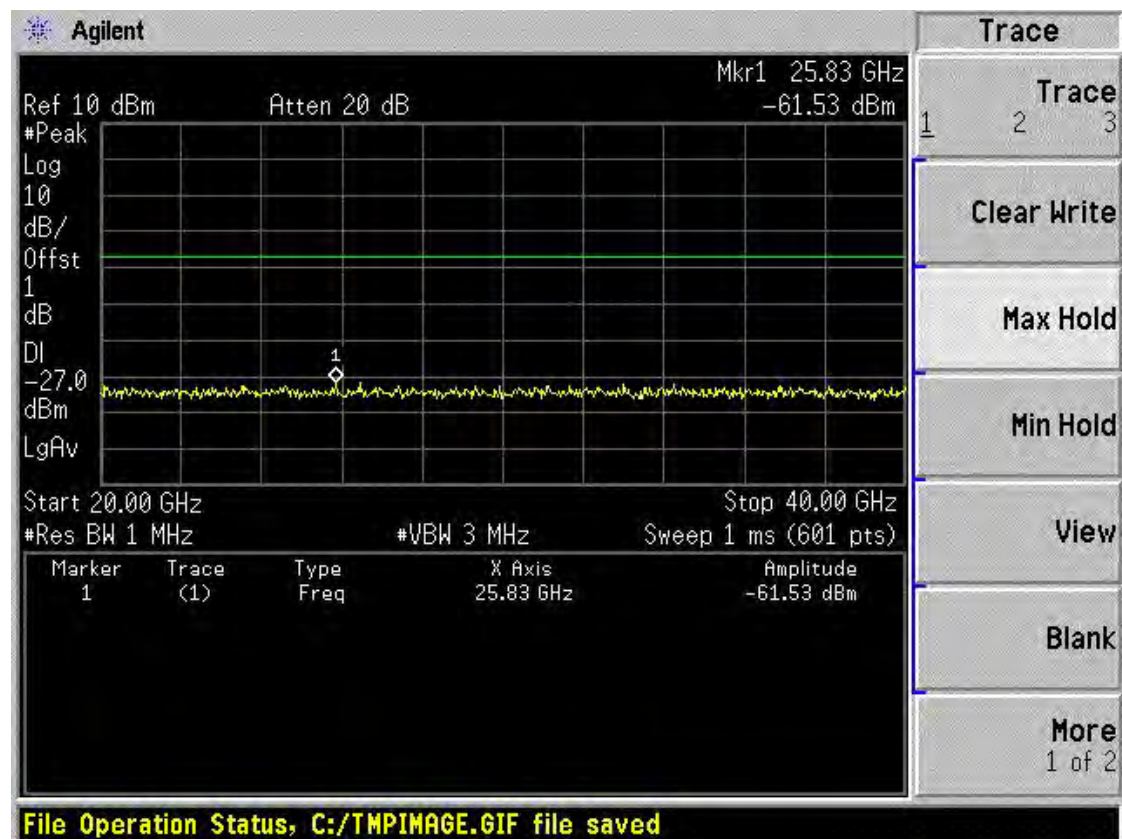


Date: 24.AUG.2015 17:06:17

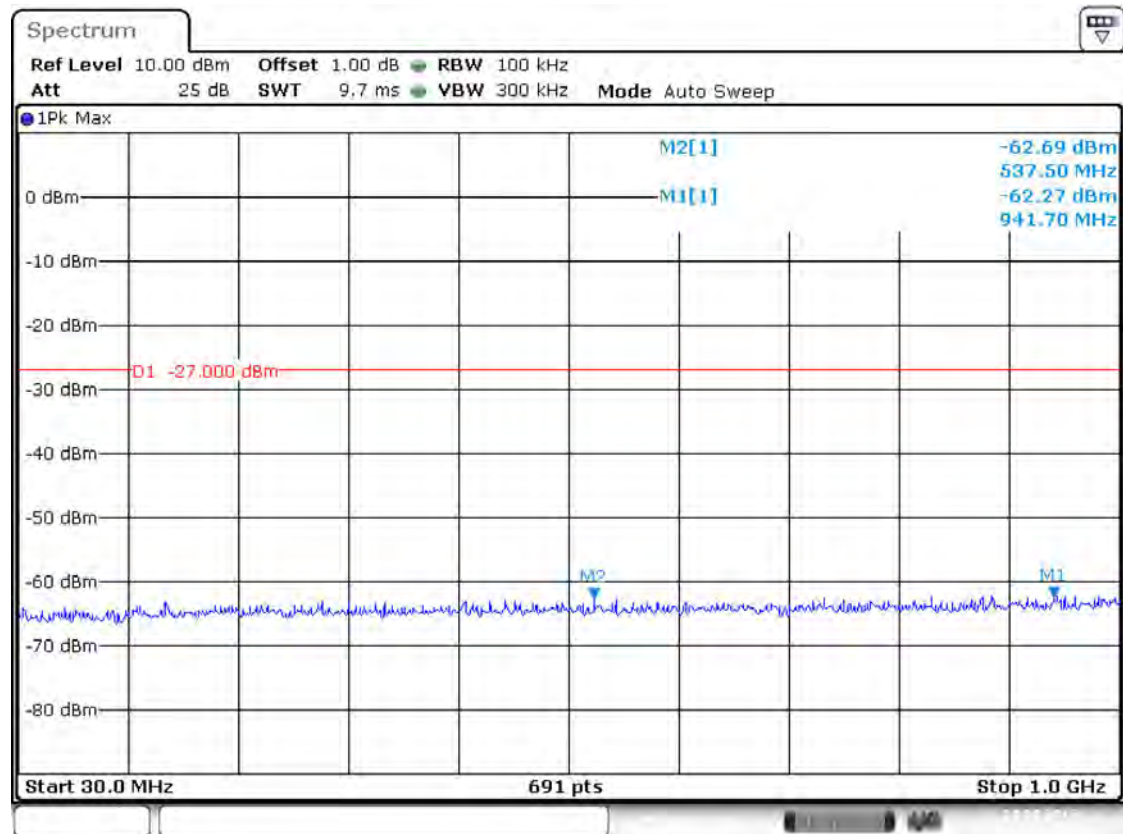
Band IV 11n(HT40) CH159 (1 ~ 20 GHz)



Band IV 11n(HT40) CH159 (20 ~ 40 GHz)

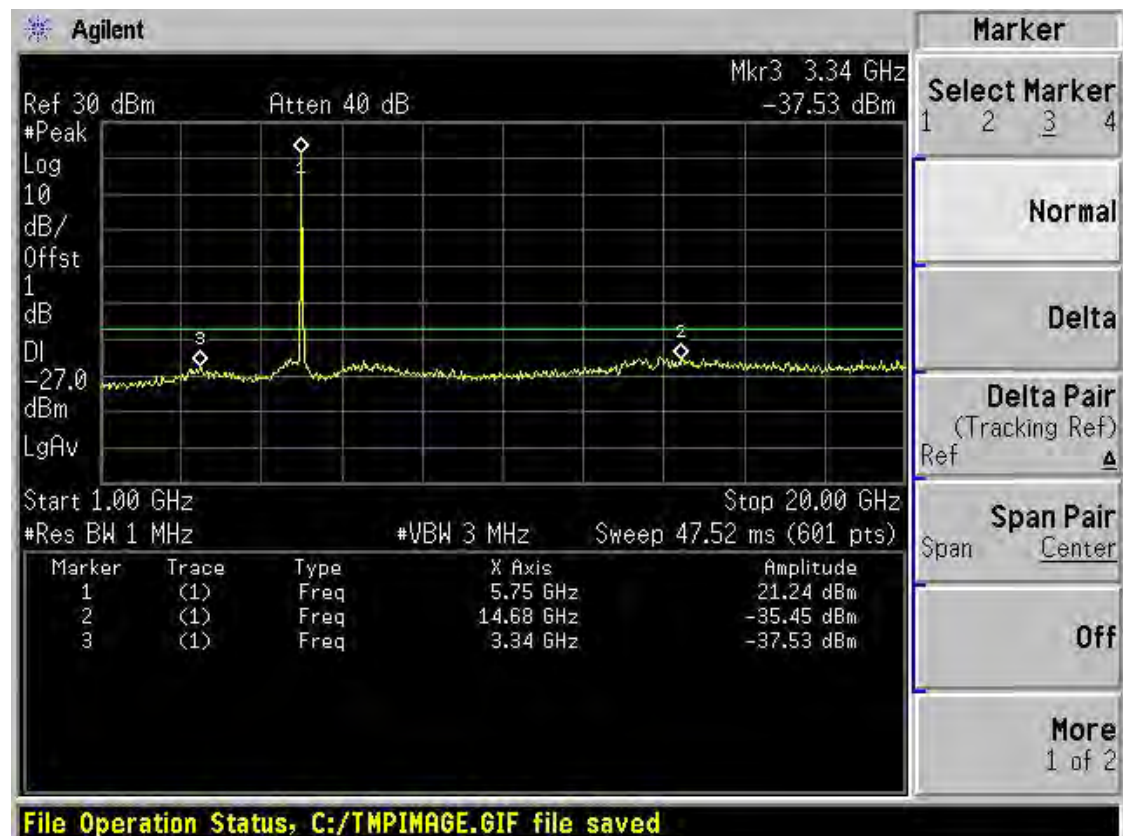


Band IV 11ac(HT20) CH149 (30 ~ 1000 MHz)

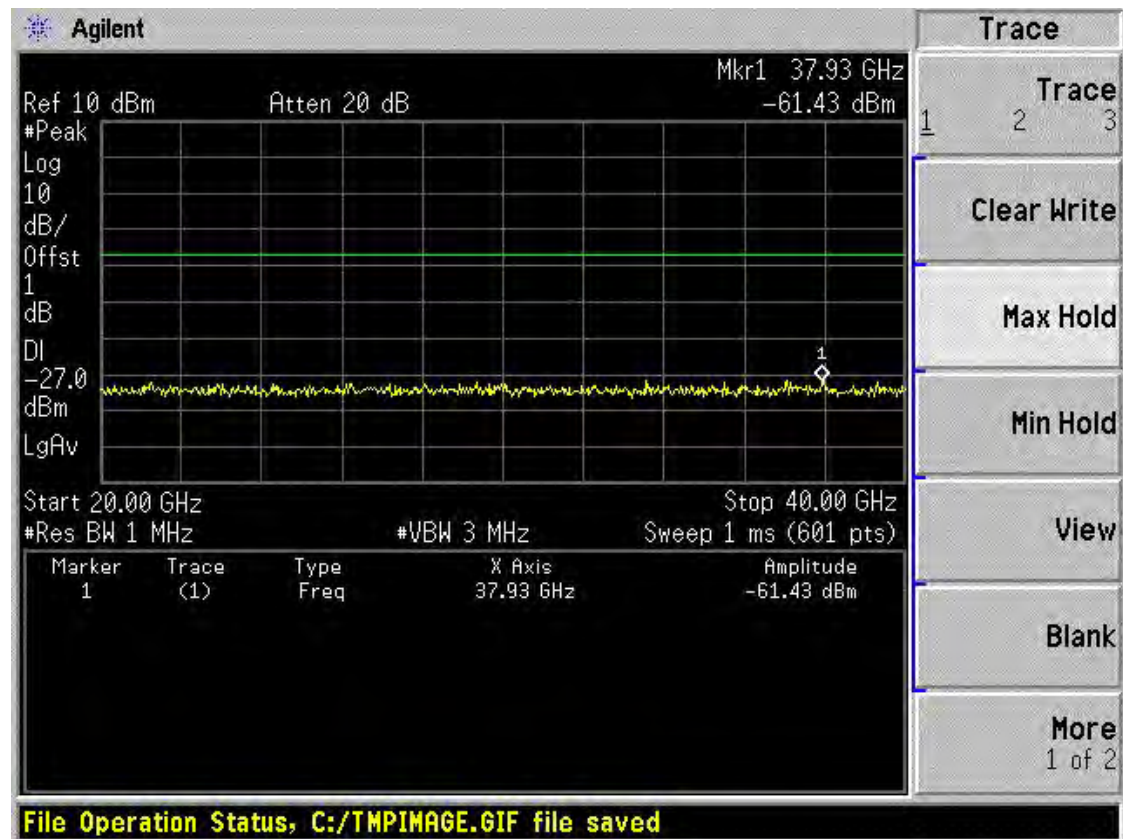


Date: 24.AUG.2015 17:14:39

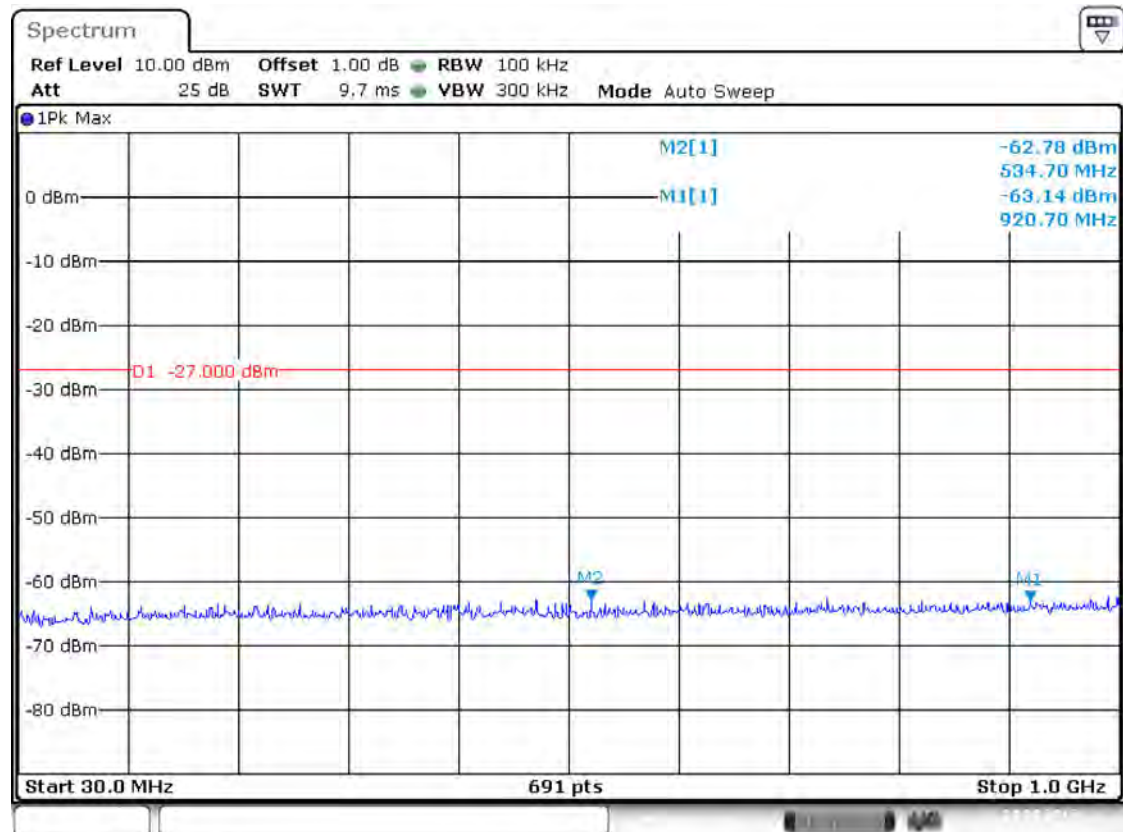
Band IV 11ac(HT20) CH149 (1 ~ 20 GHz)



Band IV 11ac(HT20) CH149 (20 ~ 40 GHz)

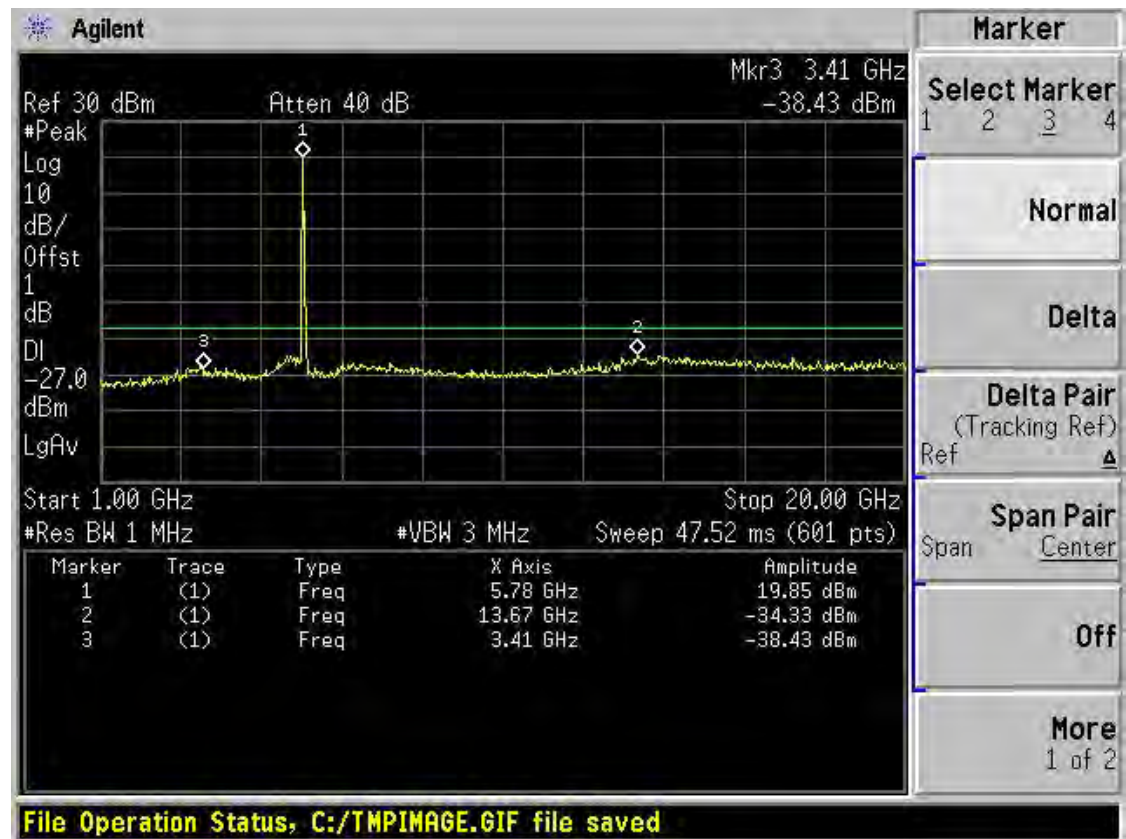


Band IV 11ac(HT20) CH157 (30 ~ 1000 MHz)

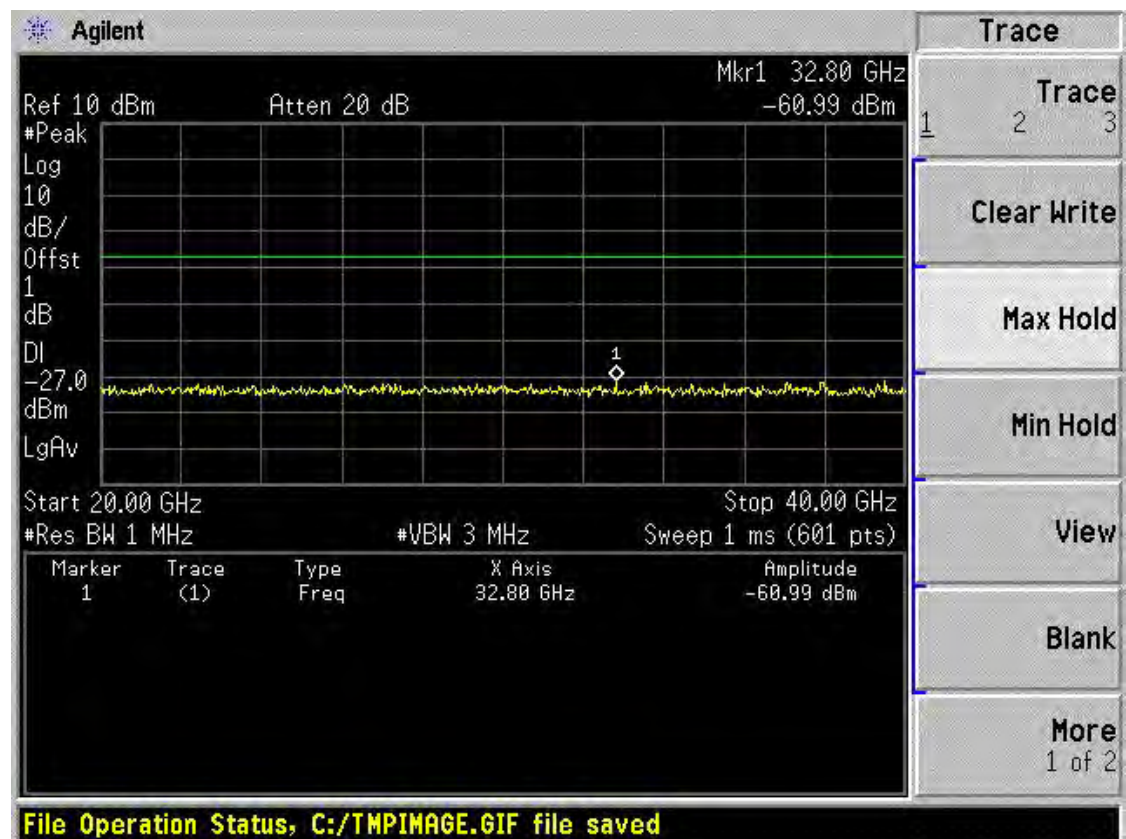


Date: 24.AUG.2015 17:15:26

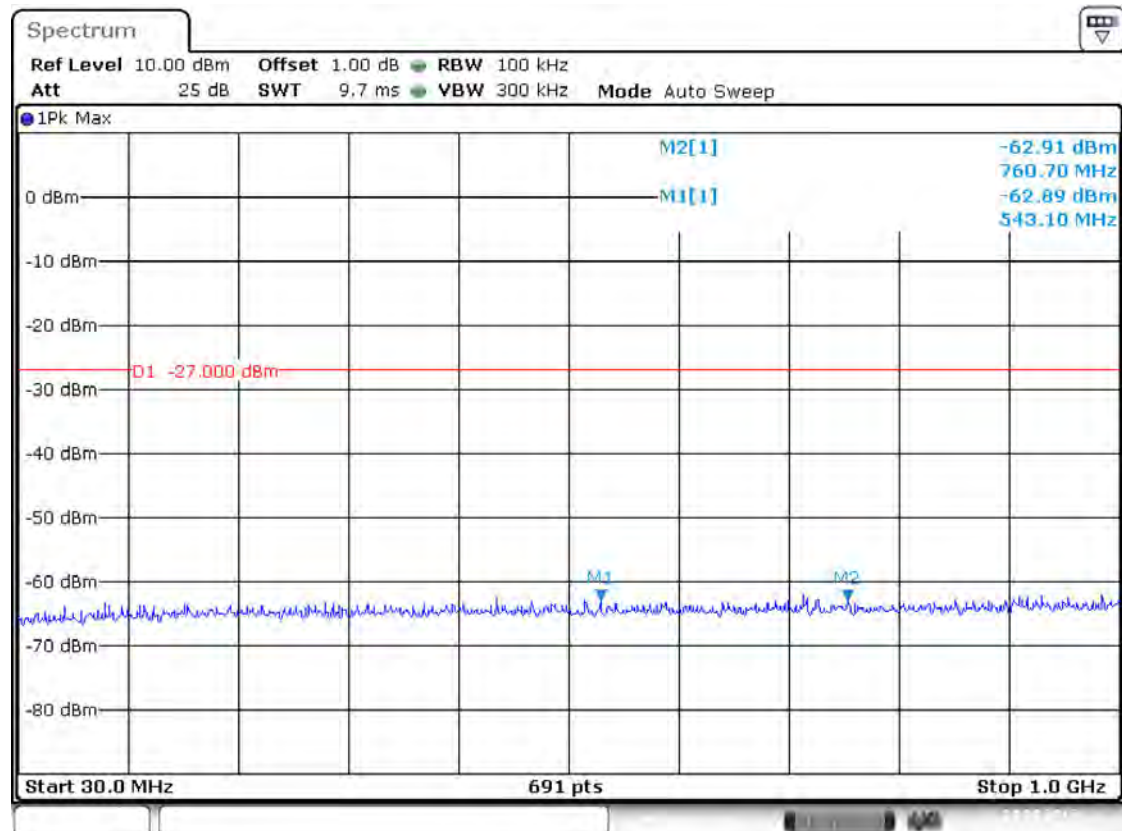
Band IV 11ac(HT20) CH157 (1 ~ 20 GHz)



Band IV 11ac(HT20) CH157 (20 ~ 40 GHz)

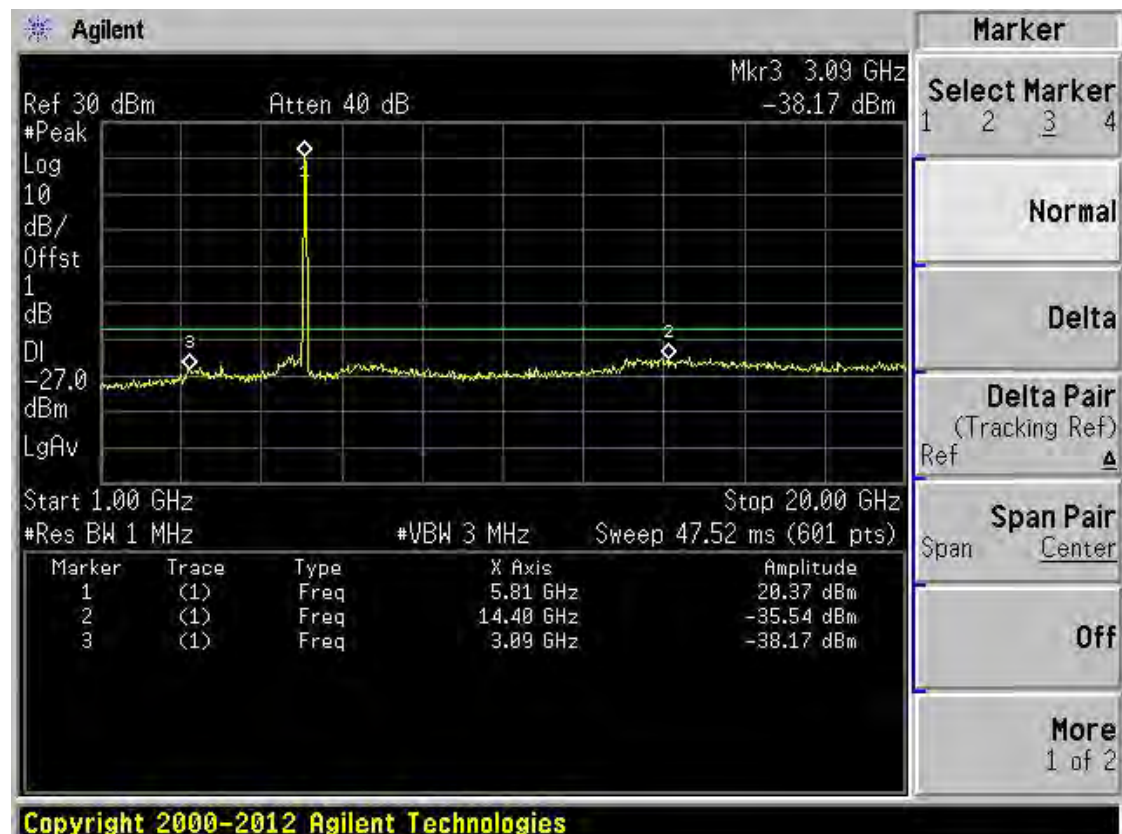


Band IV 11ac(HT20) CH165 (30 ~ 1000 MHz)

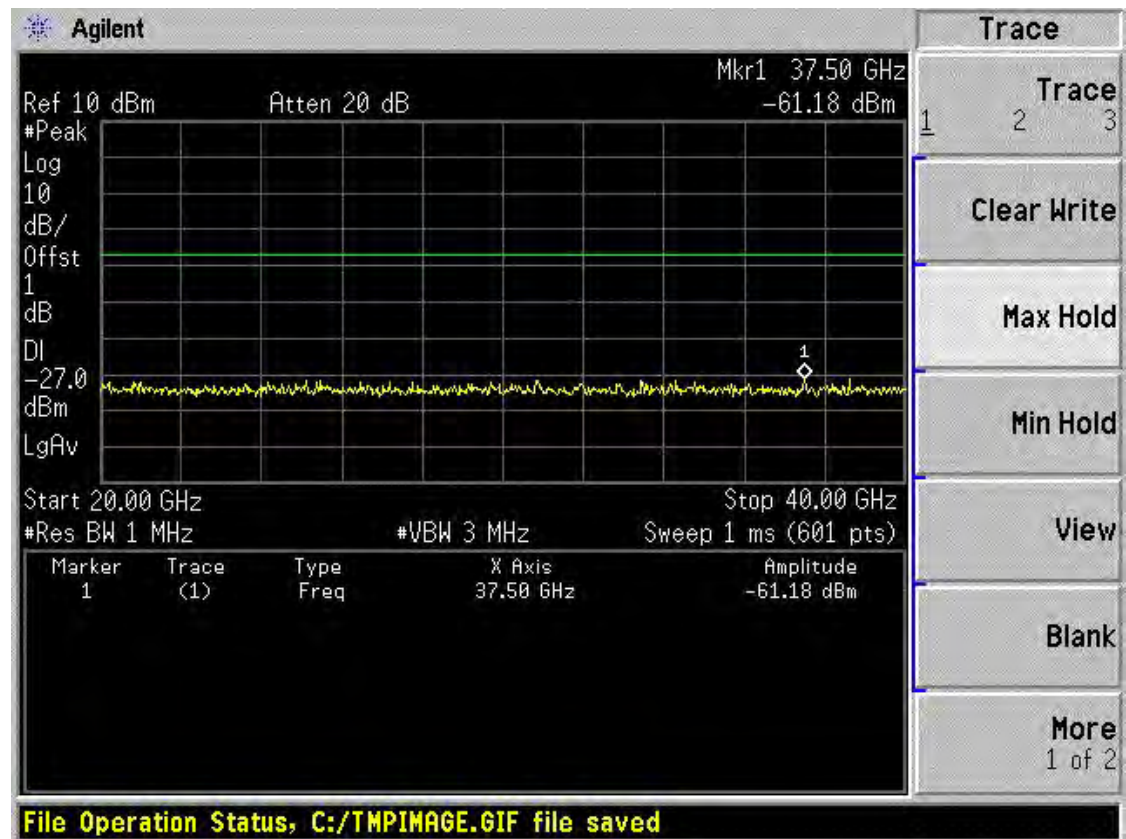


Date: 24.AUG.2015 17:16:09

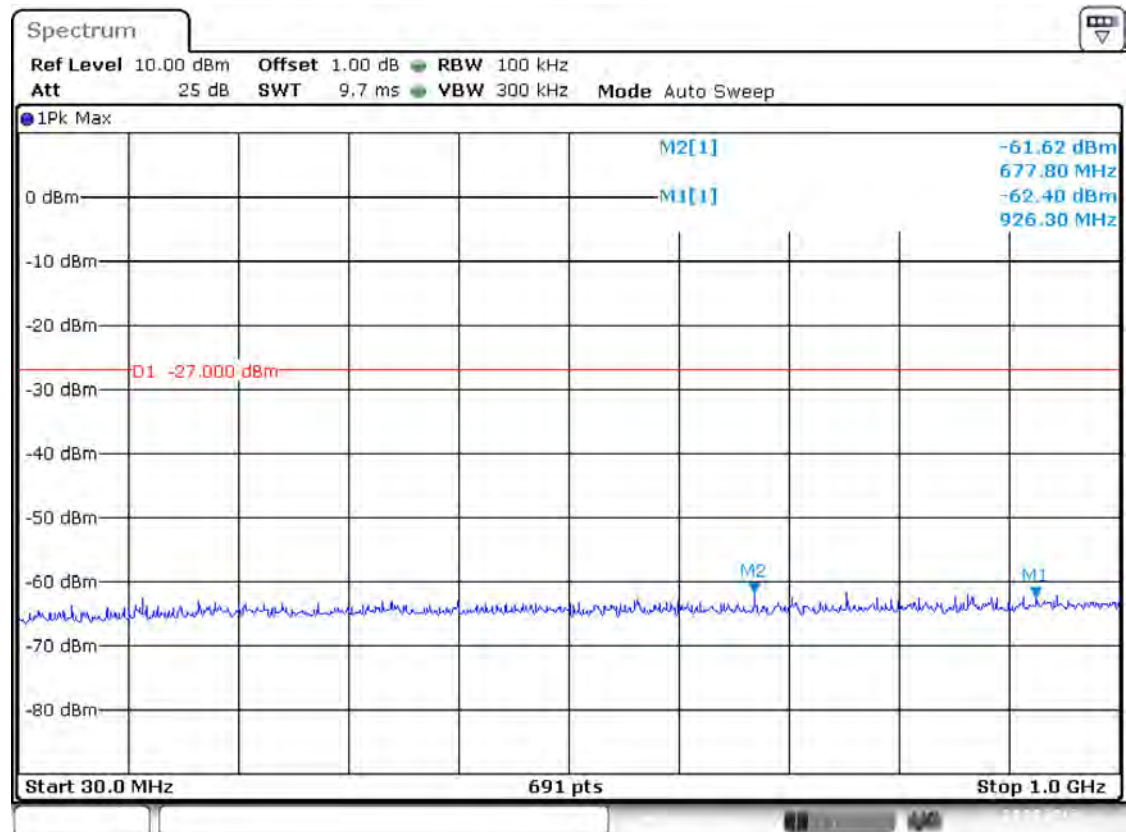
Band IV 11ac(HT20) CH165 (1 ~ 20 GHz)



Band IV 11ac(HT20) CH165 (20 ~ 40 GHz)

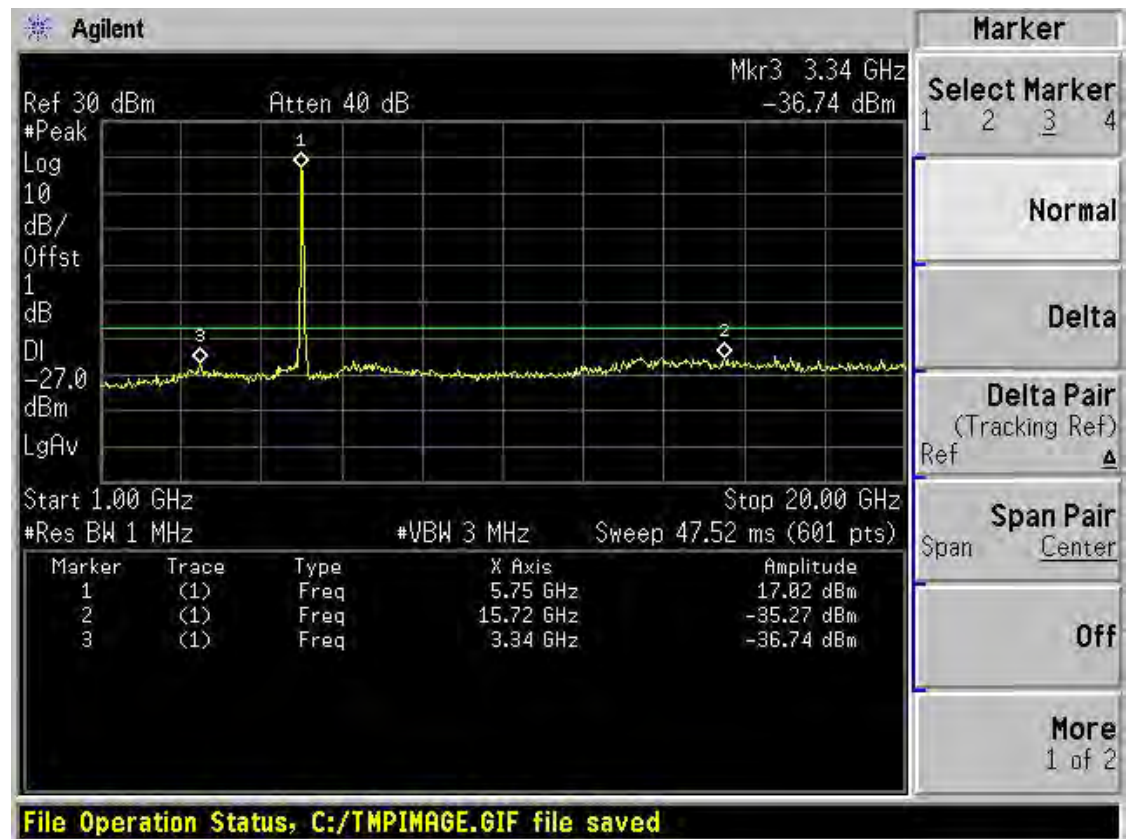


Band IV 11ac(HT40) CH151 (30 ~ 1000 MHz)

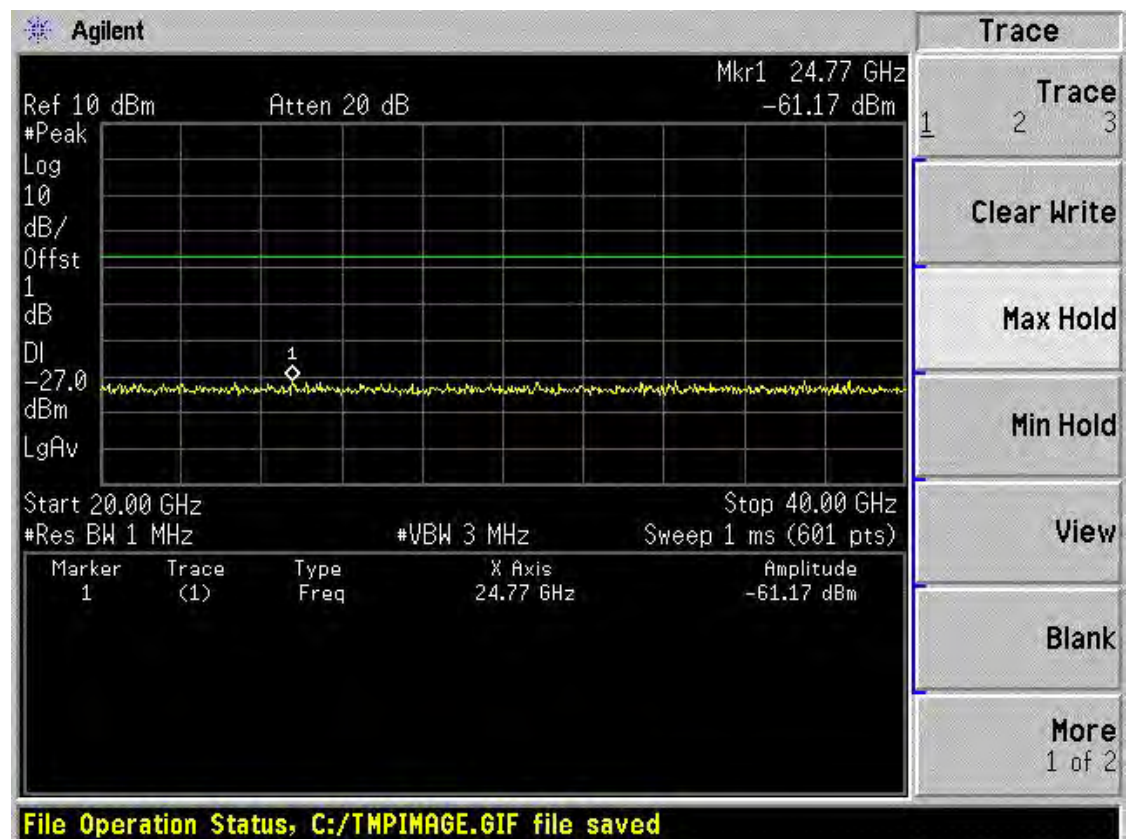


Date: 24.AUG.2015 17:16:43

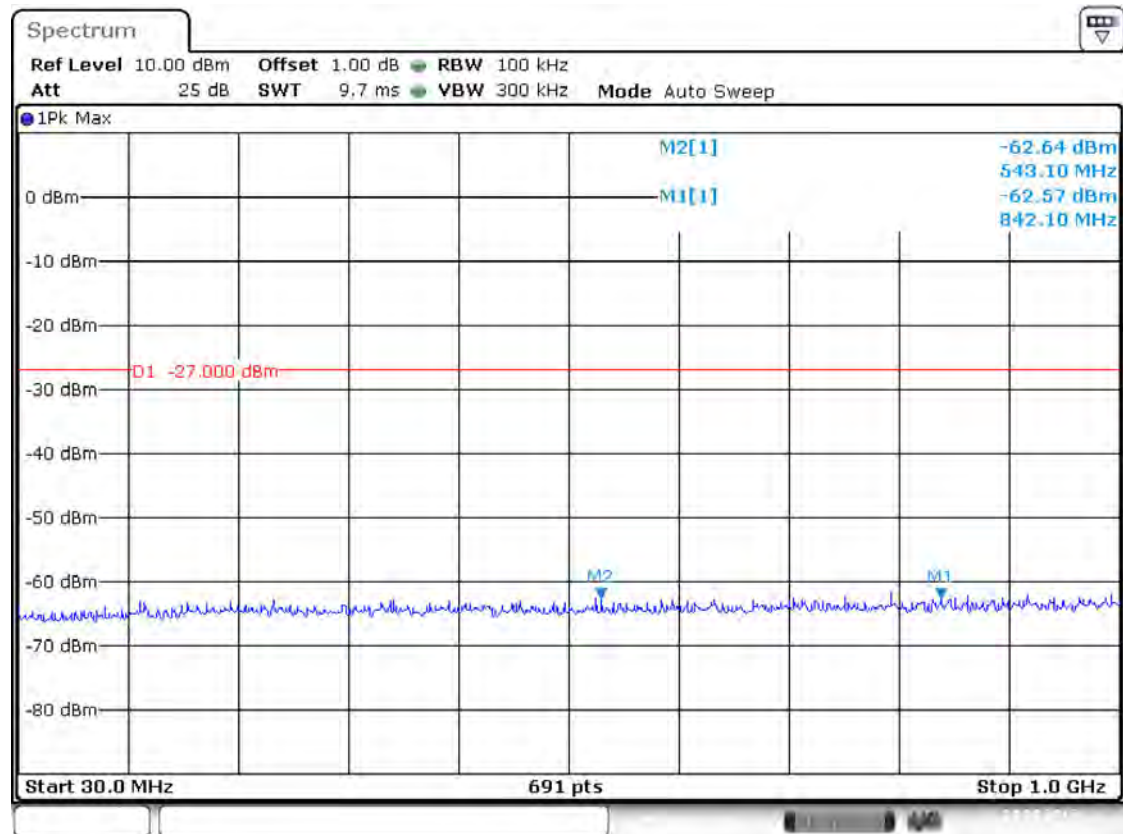
Band IV 11ac(HT40) CH151 (1 ~ 20 GHz)



Band IV 11ac(HT40) CH151 (20 ~ 40 GHz)

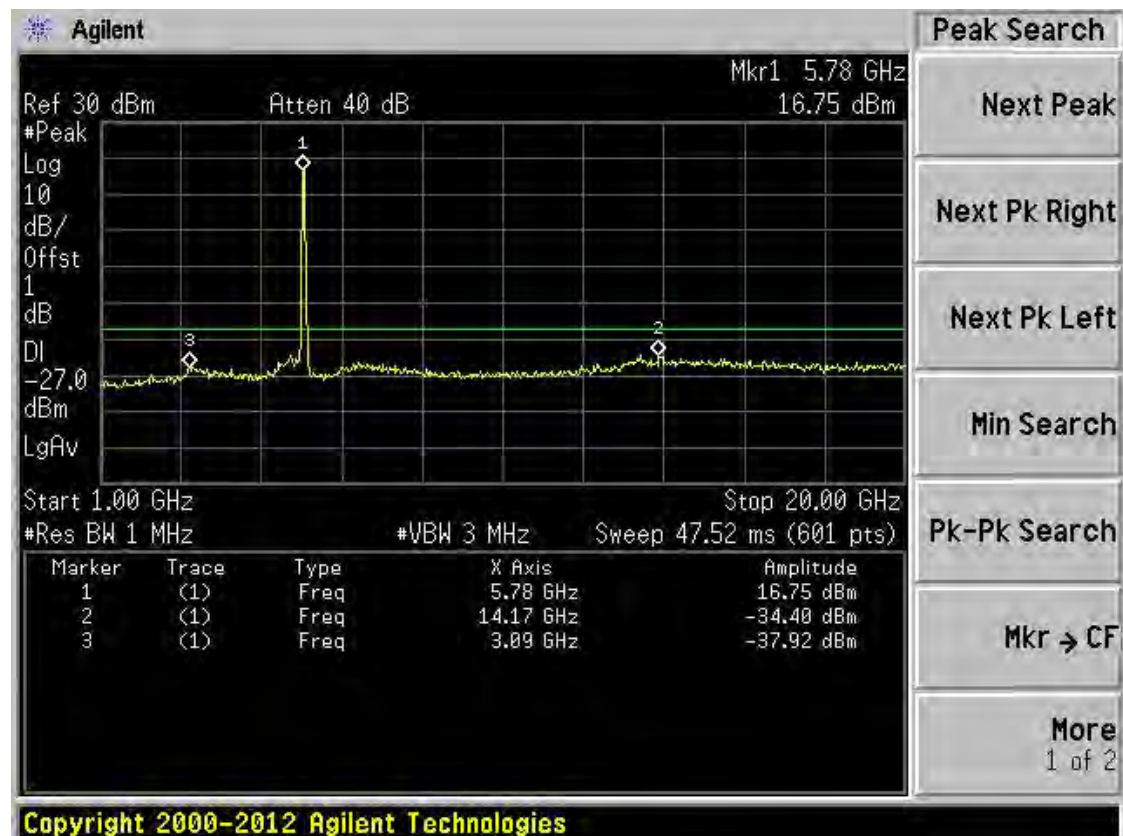


Band IV 11ac(HT40) CH159 (30 ~ 1000 MHz)

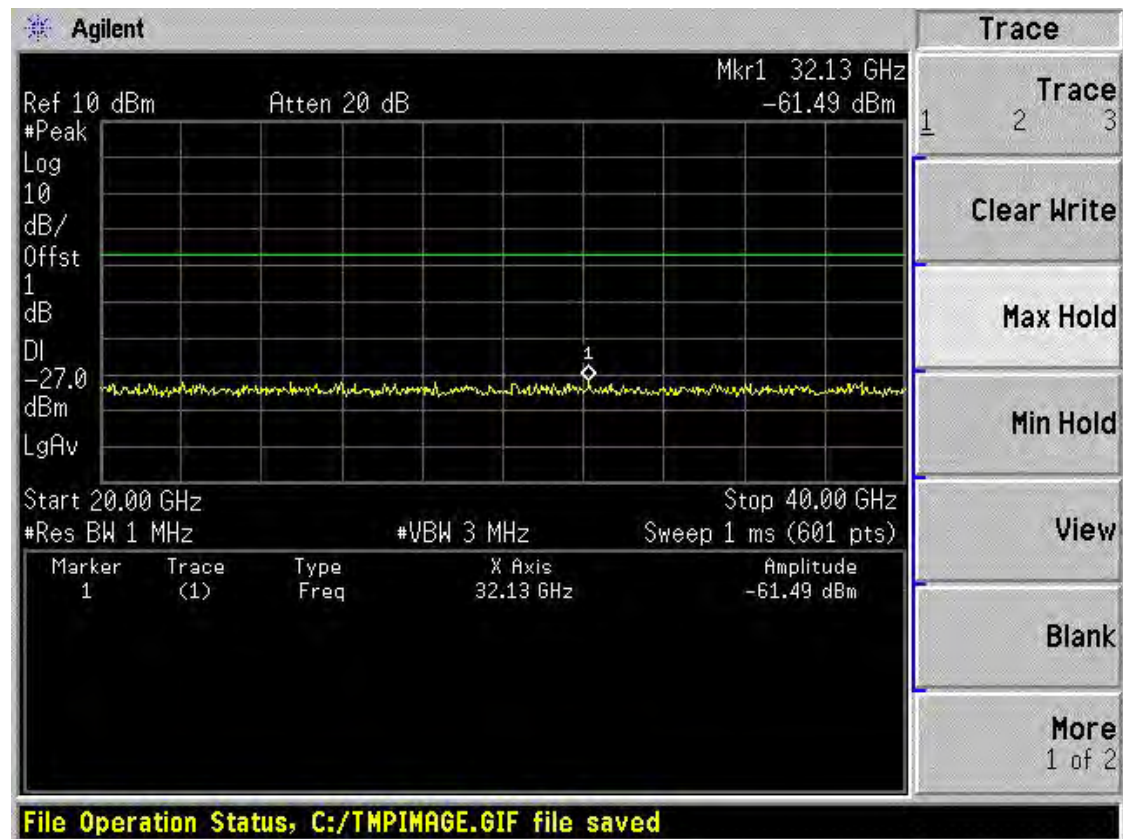


Date: 24.AUG.2015 17:17:30

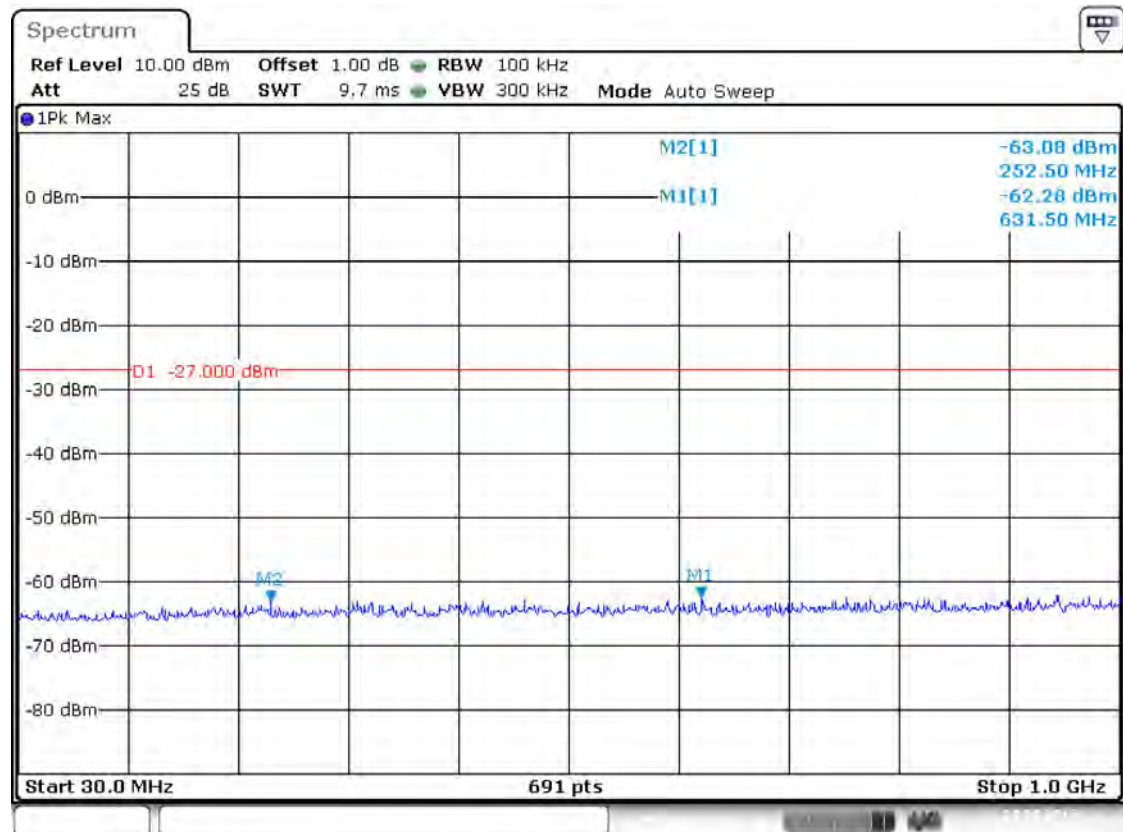
Band IV 11ac(HT40) CH159 (1 ~ 20 GHz)



Band IV 11ac(HT40) CH159 (20 ~ 40 GHz)

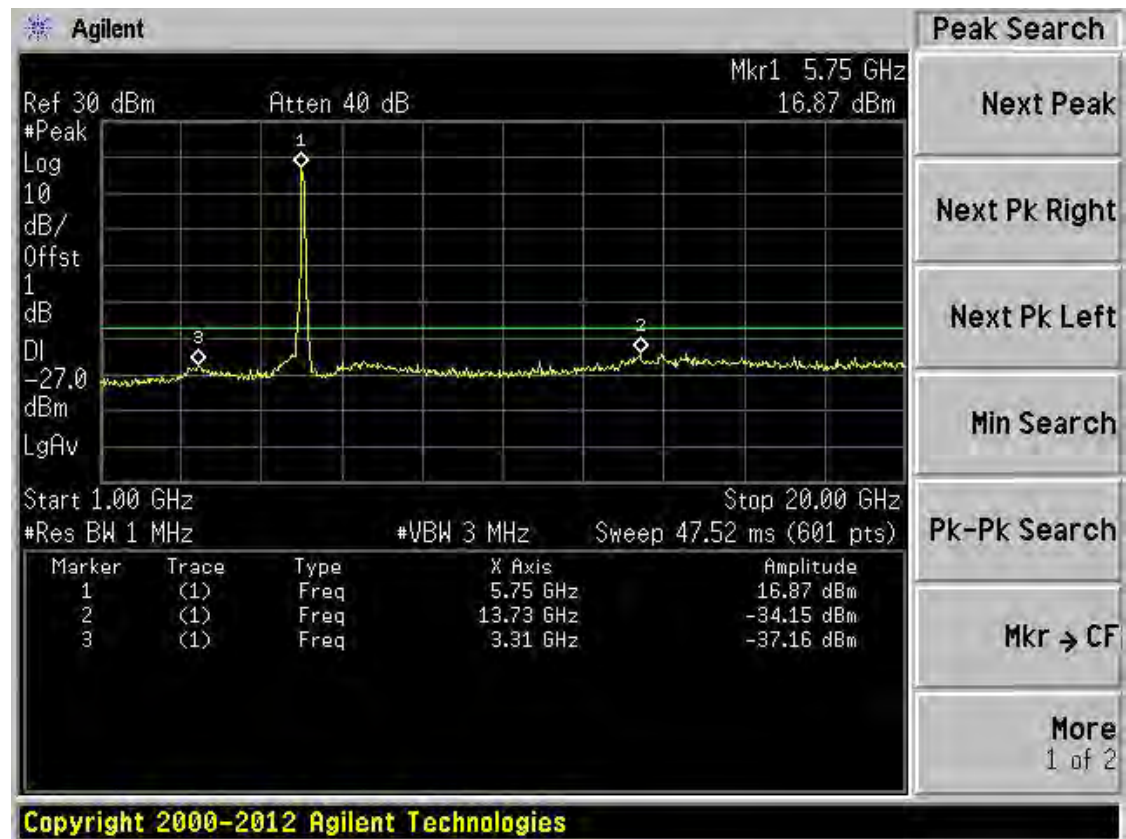


Band IV 11ac(HT80) CH155 (30 ~ 1000 MHz)

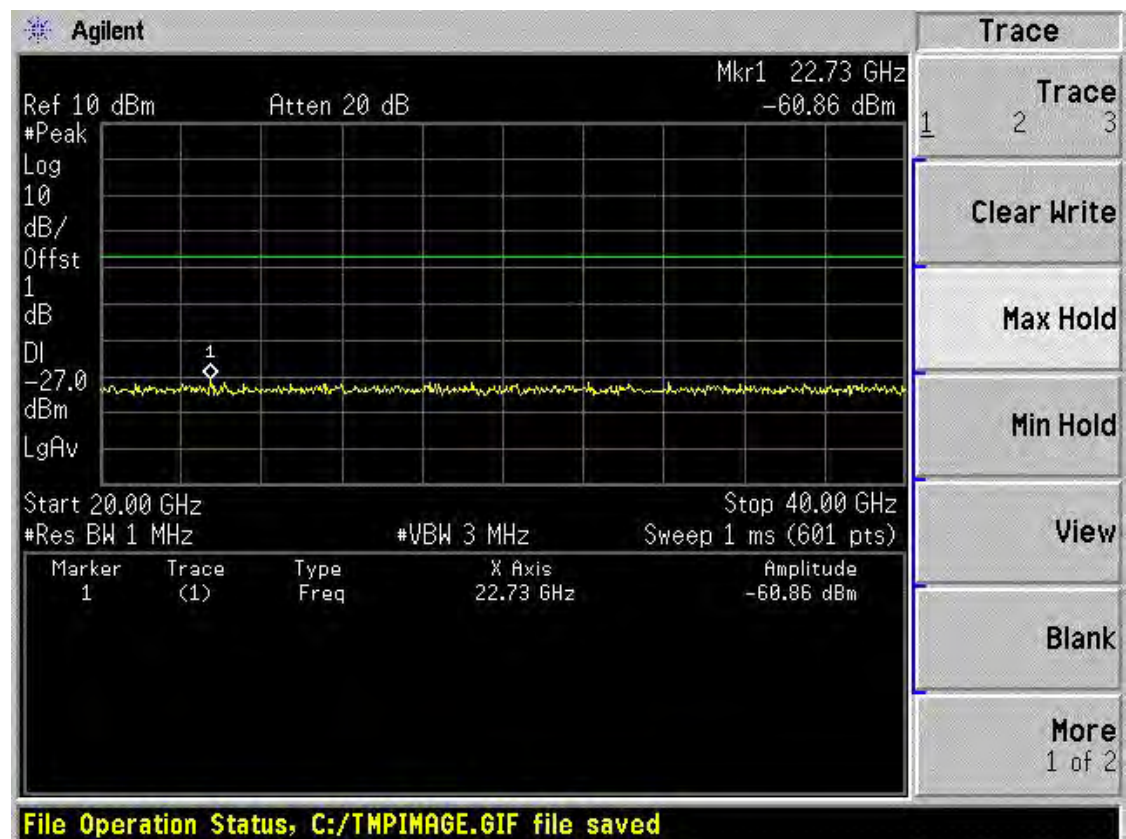


Date: 24.AUG.2015 17:18:06

Band IV 11ac(HT80) CH155 (1 ~ 20 GHz)



Band IV 11ac(HT80) CH155 (20 ~ 40 GHz)



A.7 Radiated Emission

Antenna-port Conducted test data

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

EIRP= Measure Conducted output power Value (dBm) + Maximum transmit antenna gain (dBi) + The appropriate maximum ground reflection factor(dB)

The worst data (Test frequency: below 6 GHz with 23 dBi Antenna gain)

The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dB μ V/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

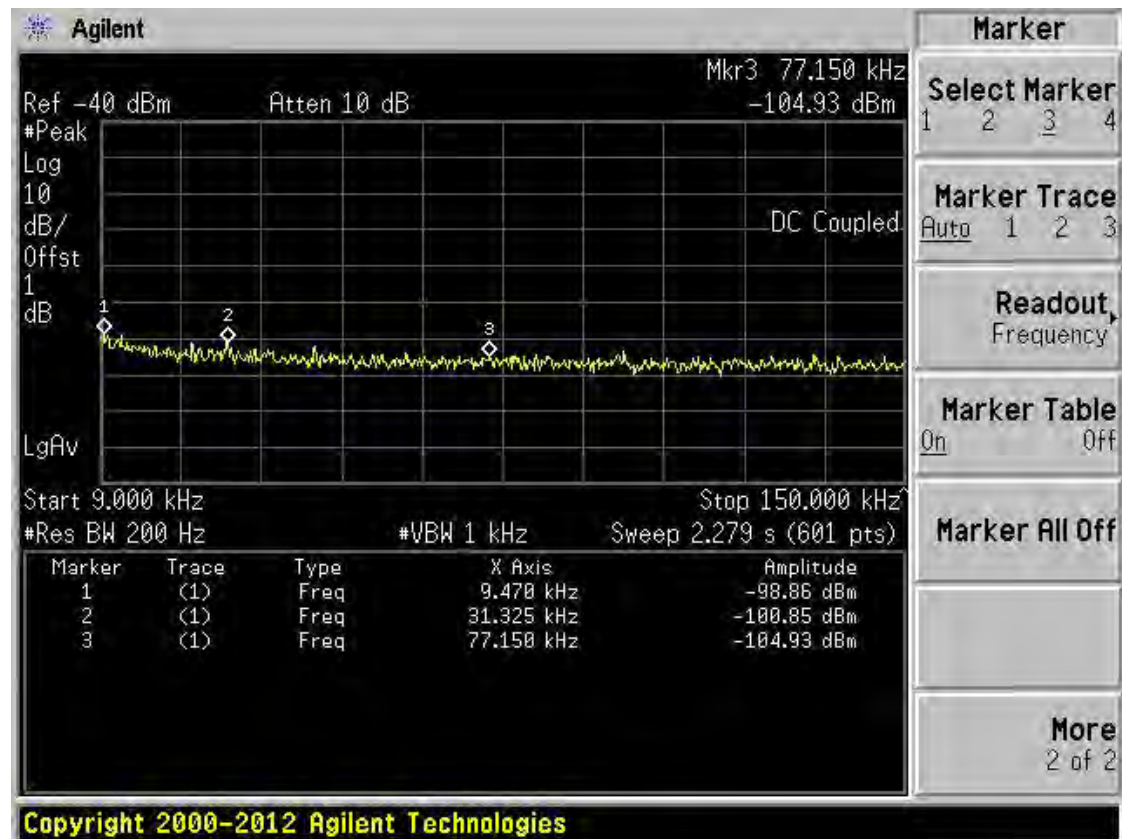
Note 4: The frequency is fundamental signal which can be ignored.

Band IV 11a CH149

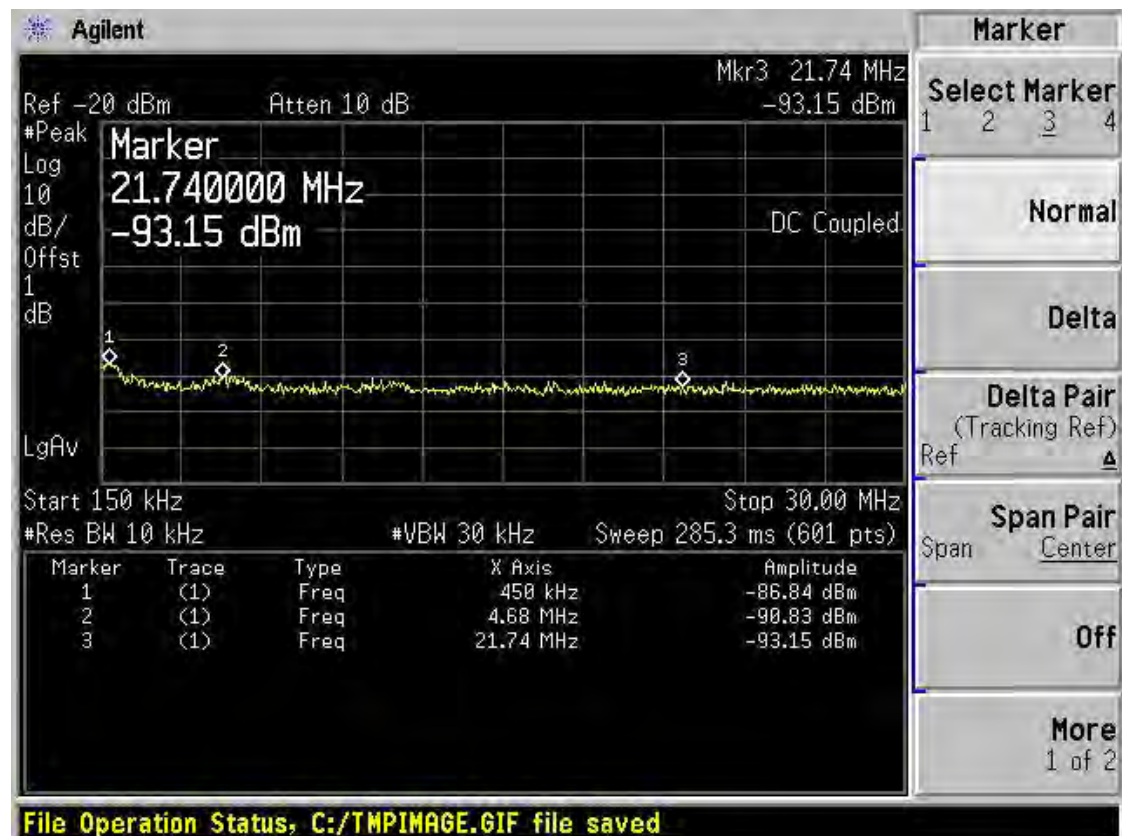
| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------------|----------------------|-------------|--------|---------|
| 0.00947 | -98.86 | 6 | 3 | 23 | QP | 25.40 | 68.20 | 42.80 | Note 1 | PASS |
| 0.45 | -86.84 | 6 | 3 | 23 | QP | 37.42 | 68.20 | 30.78 | Note 1 | PASS |
| 62.3 | -80.59 | 4.7 | 3 | 23 | QP | 42.37 | 68.20 | 25.83 | Note 1 | PASS |
| 852.9 | -81.23 | 4.7 | 3 | 23 | QP | 41.73 | 68.20 | 26.47 | Note 1 | PASS |
| 3317 | -57.92 | 0 | 3 | 23 | PK | 60.34 | 68.20 | 7.86 | Note 1 | PASS |
| | -69.45 | | 3 | 23 | AV | 48.81 | 54.00 | 5.19 | -- | PASS |
| 5517 | -55.5 | 0 | 3 | 23 | PK | 62.76 | 68.20 | 5.44 | Note 1 | PASS |
| | -66.81 | | 3 | 23 | AV | 51.45 | 54.00 | 2.55 | -- | PASS |
| 5750 | 24.45 | 0 | 3 | 23 | PK | N/A | N/A | N/A | Note 1 | N/A |
| | N/A | | 3 | 23 | AV | N/A | N/A | N/A | | N/A |

Test Plots

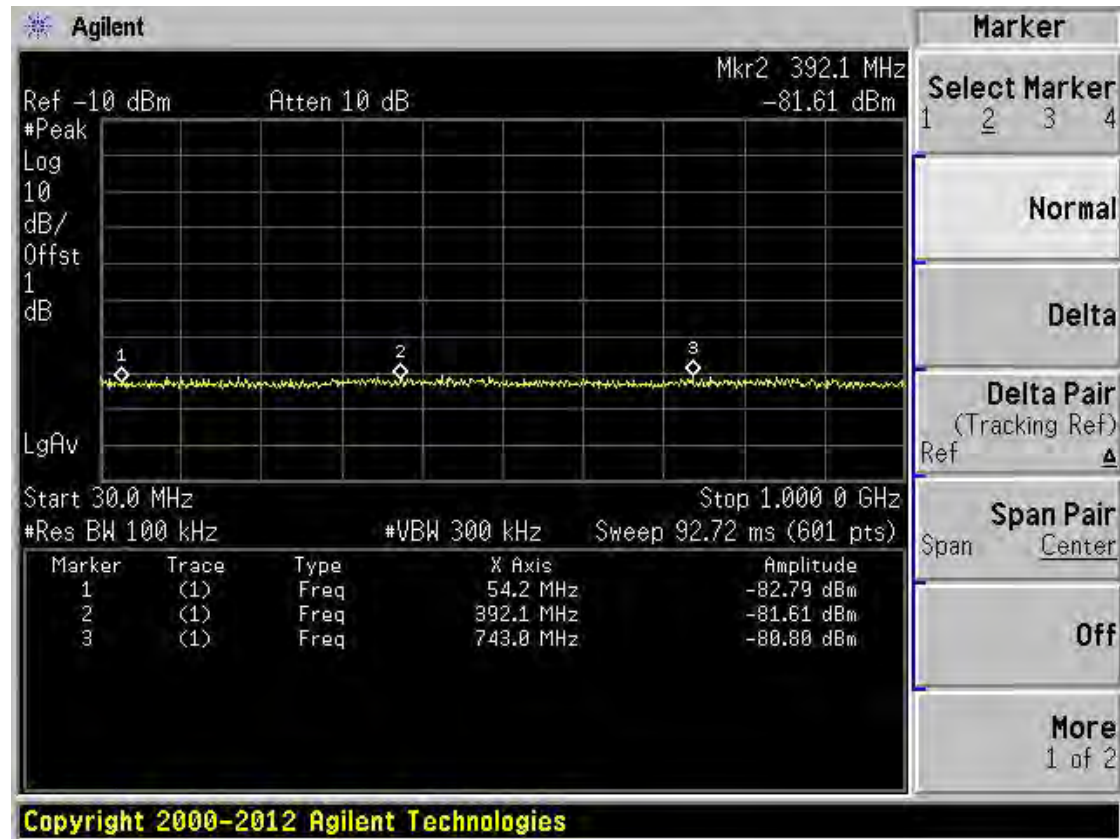
Band IV 11a CH149, SPURIOUS 9 kHz ~ 150 kHz



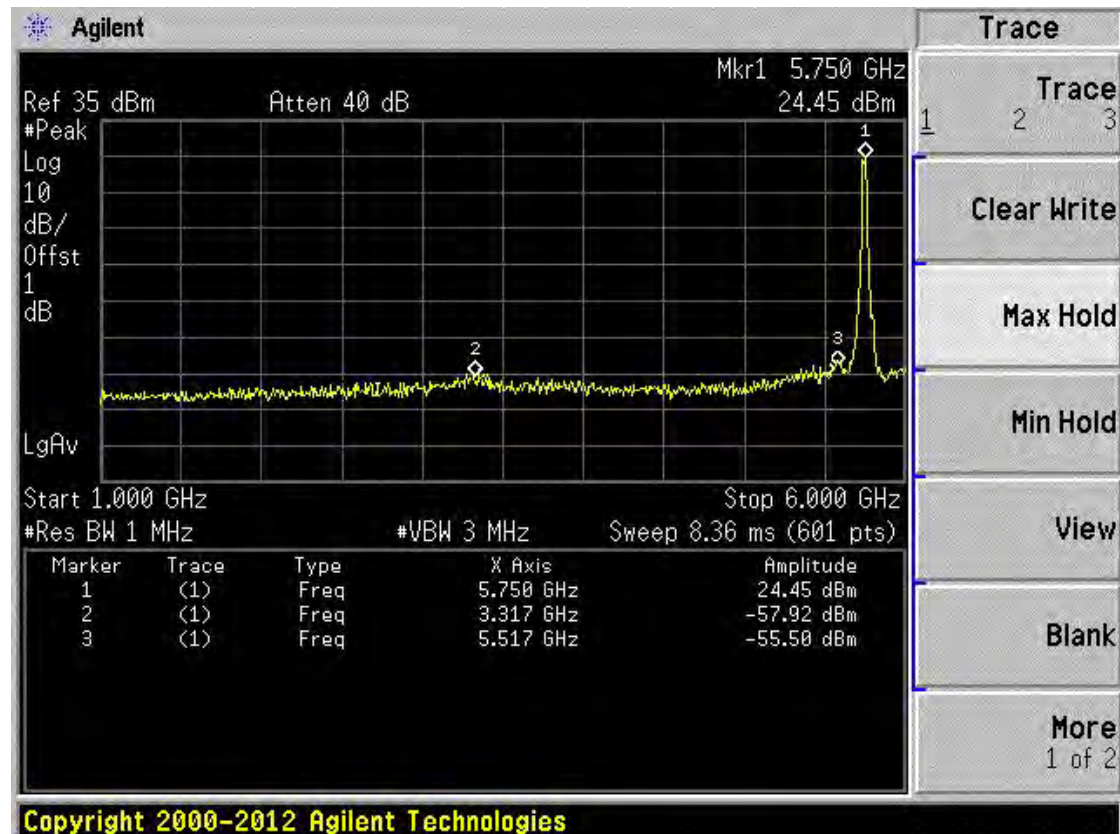
Band IV 11a CH149, SPURIOUS 150 kHz ~ 30 MHz



Band IV 11a CH149, SPURIOUS 30 MHz ~ 1 GHz



Band IV 11a CH149, SPURIOUS 1 GHz ~ 6 GHz



Test Data(Test frequency: 6 - 20 GHz with 23 dBi Antenna gain)

The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

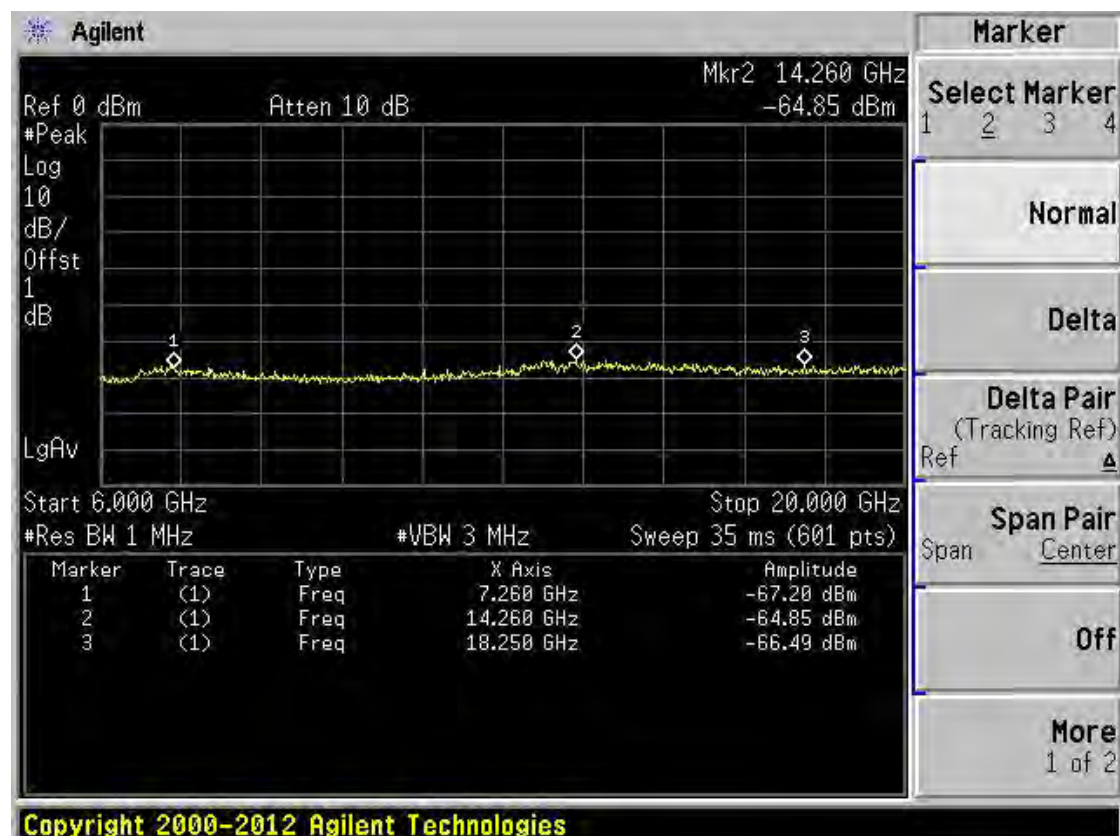
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11a CH36

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7260 | -67.2 | 0 | 3 | 23 | PK | 51.06 | 68.20 | 17.14 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14260 | -64.85 | 0 | 3 | 23 | PK | 53.41 | 68.20 | 14.79 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18250 | -66.49 | 0 | 3 | 23 | PK | 51.77 | 68.20 | 16.43 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11a CH36, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

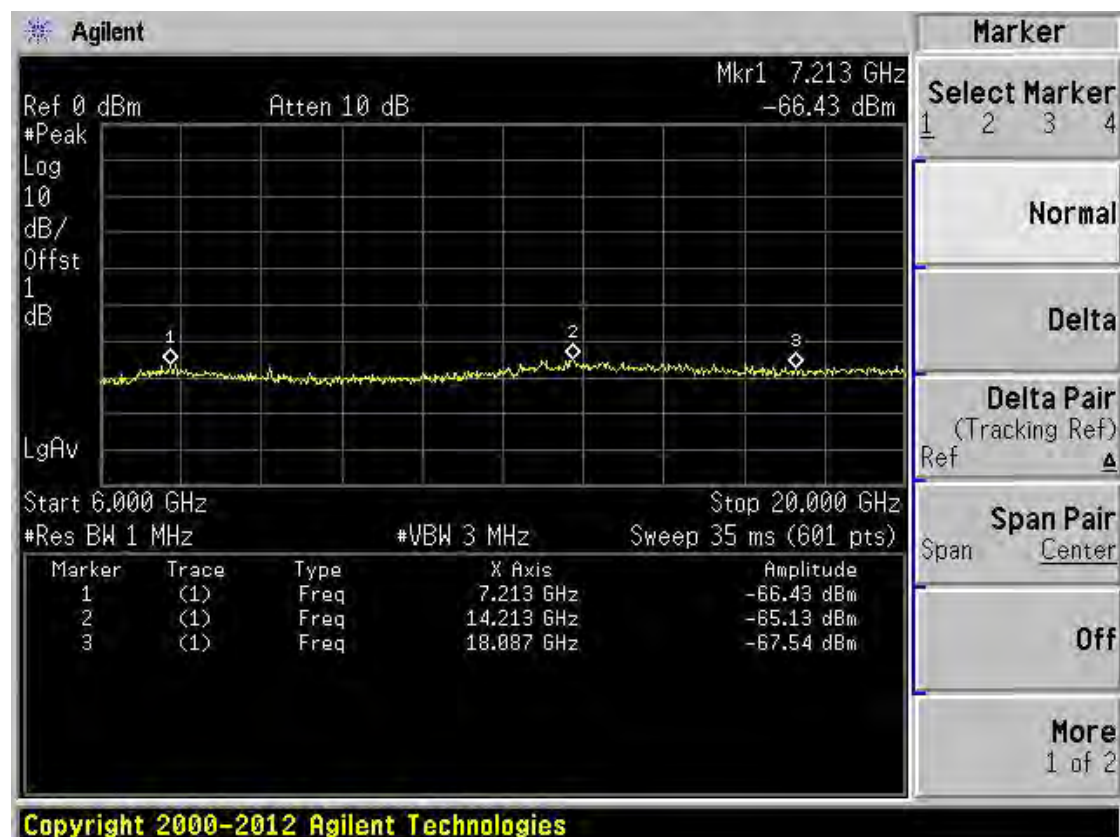
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11a CH40

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -66.43 | 0 | 3 | 23 | PK | 51.83 | 68.20 | 16.37 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -65.13 | 0 | 3 | 23 | PK | 53.13 | 68.20 | 15.07 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18087 | -67.54 | 0 | 3 | 23 | PK | 50.72 | 68.20 | 17.48 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11a CH40, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

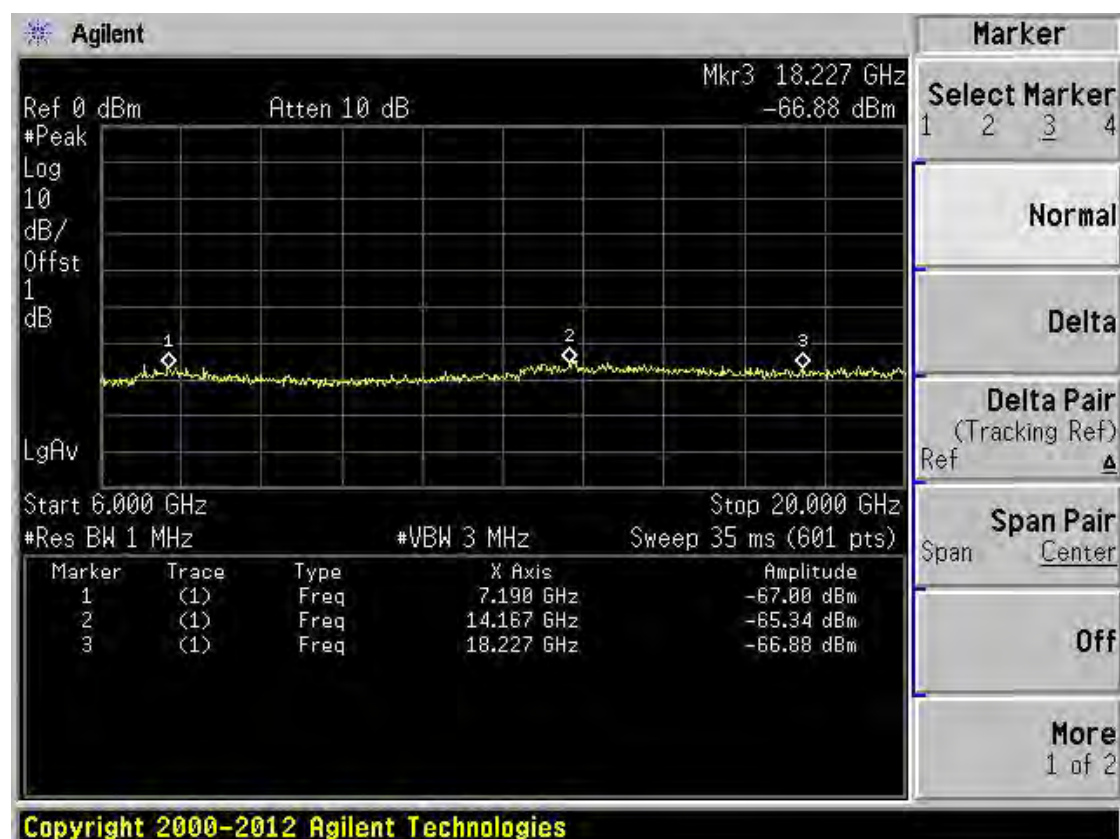
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11a CH48

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|--------------------|----------------|--|----------|----------------------|----------|---------------|-------------------|----------------|--------|---------|
| 7190 | -67 | 0 | 3 | 23 | PK | 51.26 | 68.20 | 16.94 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14167 | -65.34 | 0 | 3 | 23 | PK | 52.92 | 68.20 | 15.28 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18227 | -66.88 | 0 | 3 | 23 | PK | 51.38 | 68.20 | 16.82 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11a CH48, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

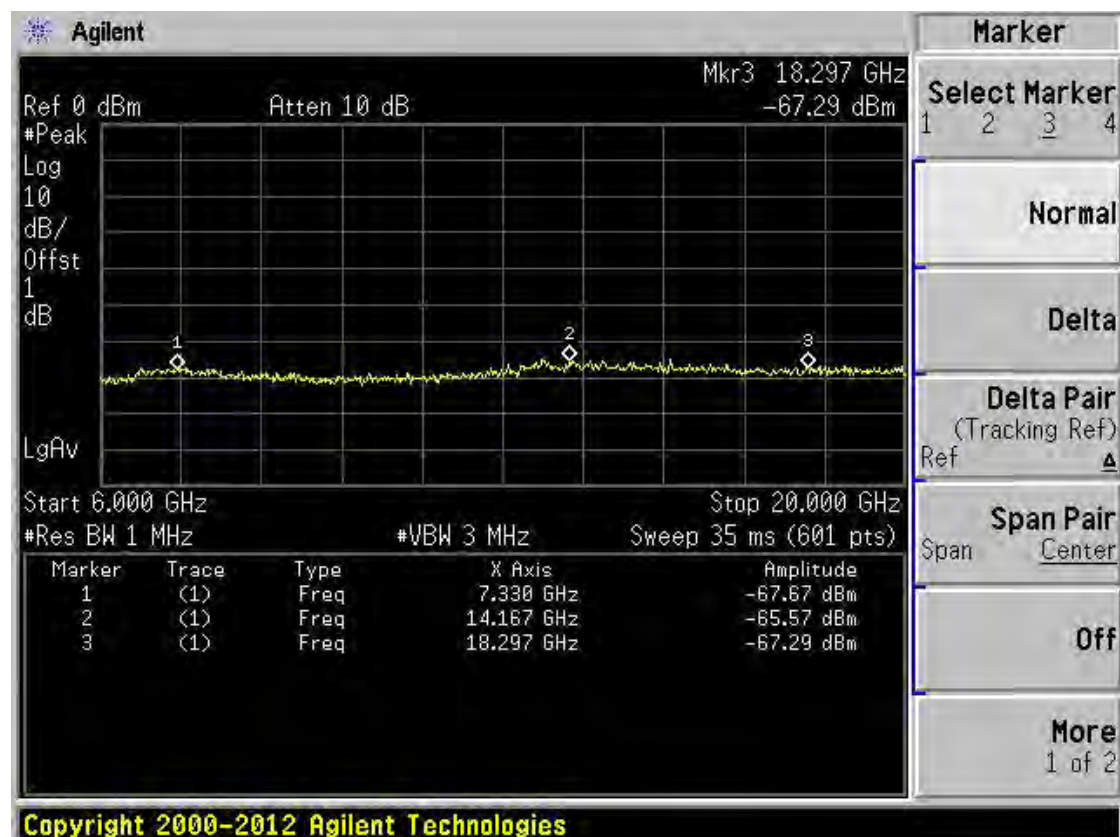
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11n(HT20) CH36

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7330 | -67.67 | 0 | 3 | 23 | PK | 50.59 | 68.20 | 17.61 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14167 | -65.57 | 0 | 3 | 23 | PK | 52.69 | 68.20 | 15.51 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18297 | -67.29 | 0 | 3 | 23 | PK | 50.97 | 68.20 | 17.23 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11n(HT20) CH36, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

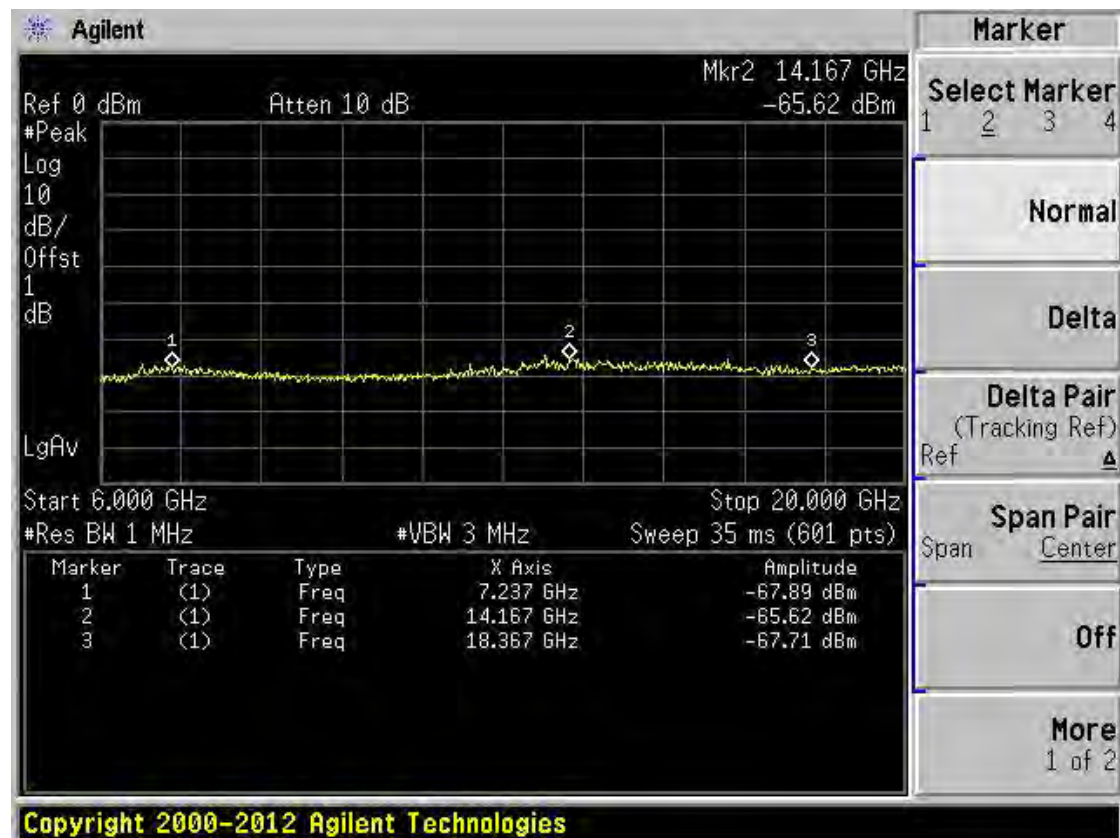
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11n(HT20) CH40

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7237 | -67.89 | 0 | 3 | 23 | PK | 50.37 | 68.20 | 17.83 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14167 | -65.62 | 0 | 3 | 23 | PK | 52.64 | 68.20 | 15.56 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18367 | -67.89 | 0 | 3 | 23 | PK | 50.37 | 68.20 | 17.83 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11n(HT20) CH40, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

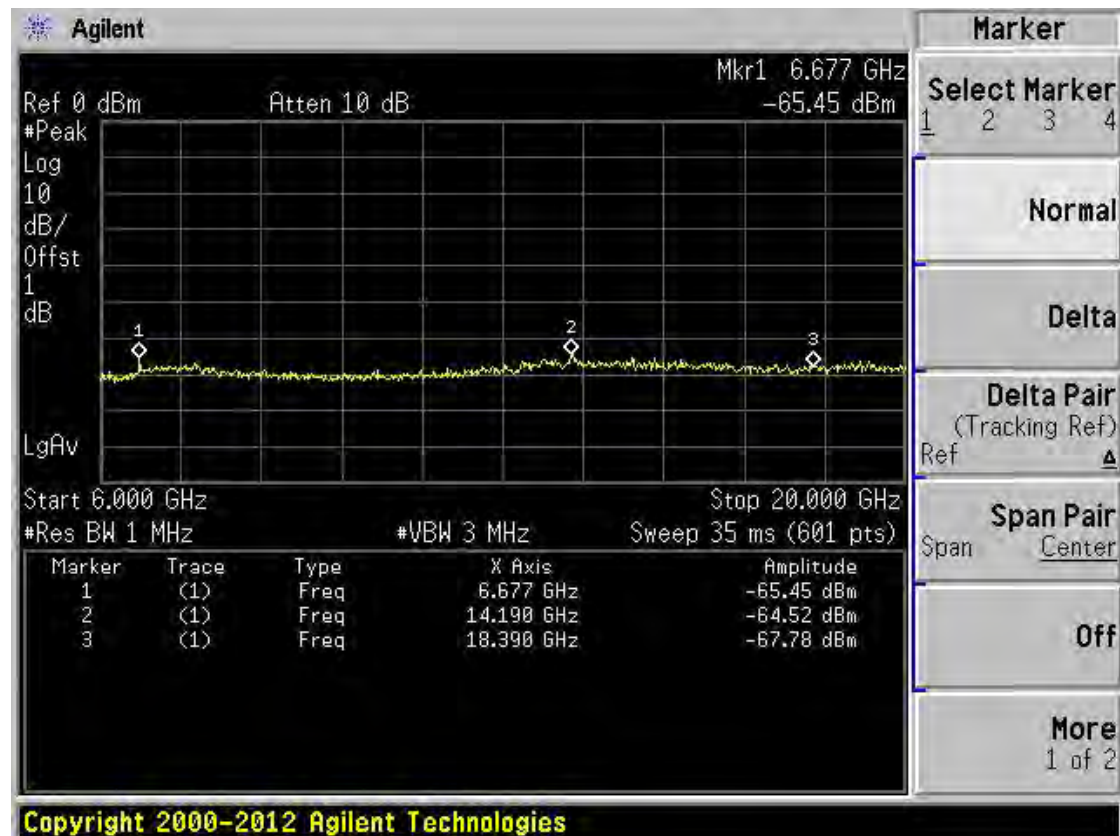
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11n(HT20) CH48

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 6677 | -65.46 | 0 | 3 | 23 | PK | 52.80 | 68.20 | 15.40 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -64.52 | 0 | 3 | 23 | PK | 53.74 | 68.20 | 14.46 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 18390 | -67.78 | 0 | 3 | 23 | PK | 50.48 | 68.20 | 17.72 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11n(HT20) CH48, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

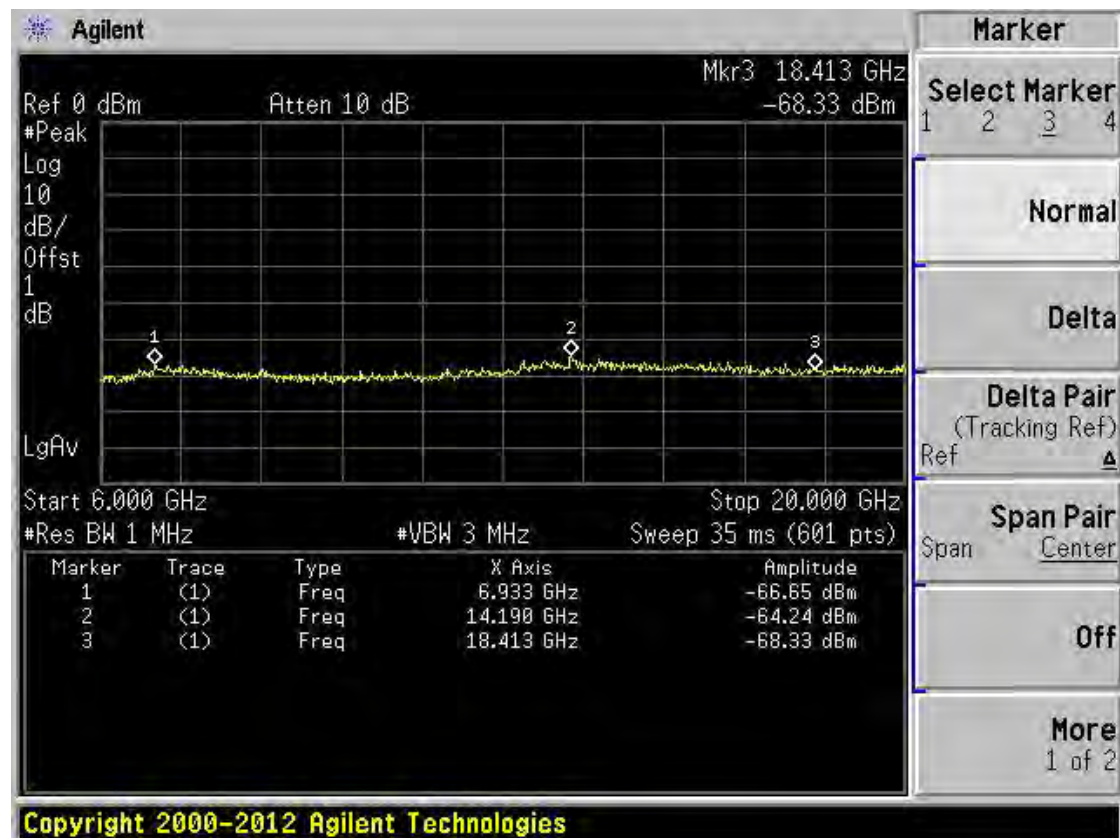
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11n(HT40) CH38

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 6933 | -66.65 | 0 | 3 | 23 | PK | 51.61 | 68.20 | 16.59 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -64.24 | 0 | 3 | 23 | PK | 54.02 | 68.20 | 14.18 | Note 1 | PASS |
| | -78.65 | | 3 | 23 | AV | 39.61 | 54.00 | 14.39 | -- | PASS |
| 18413 | -68.33 | 0 | 3 | 23 | PK | 49.93 | 68.20 | 18.27 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11n(HT40) CH38, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

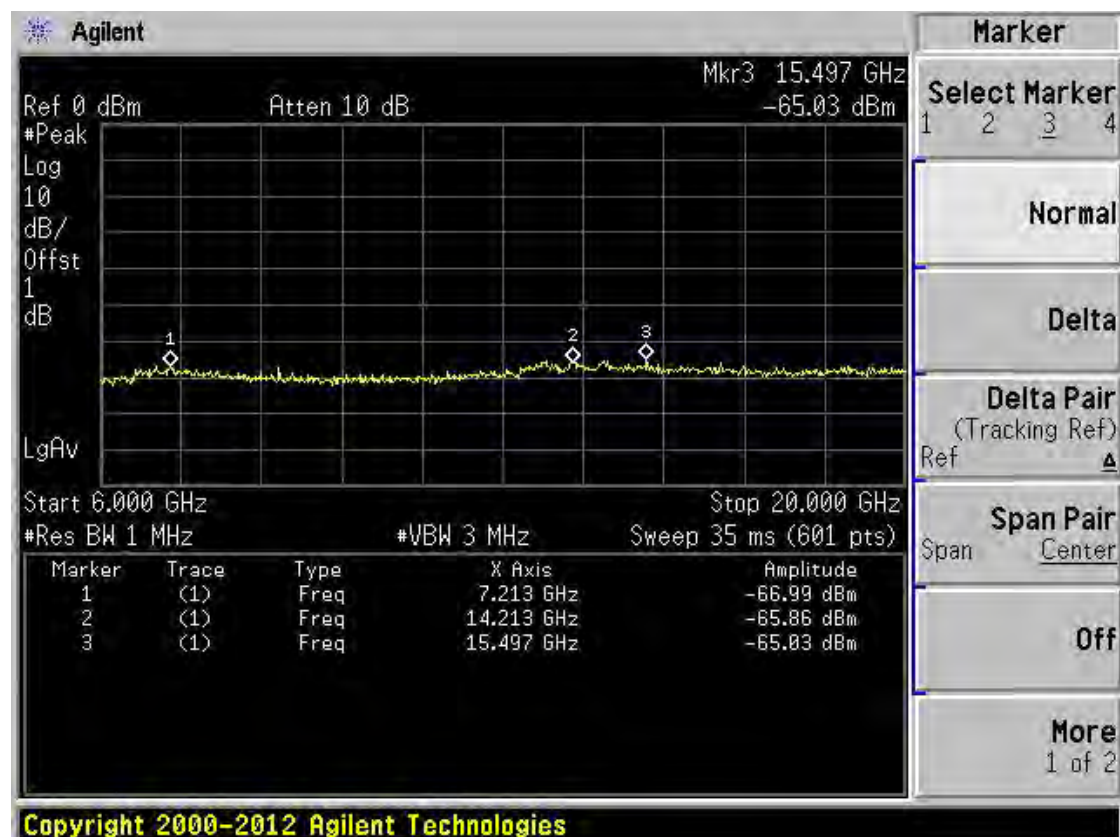
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11n(HT40) CH46

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -66.99 | 0 | 3 | 23 | PK | 51.27 | 68.20 | 16.93 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -65.86 | 0 | 3 | 23 | PK | 52.40 | 68.20 | 15.80 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 15497 | -65.03 | 0 | 3 | 23 | PK | 53.23 | 68.20 | 14.97 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11n(HT40) CH46, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

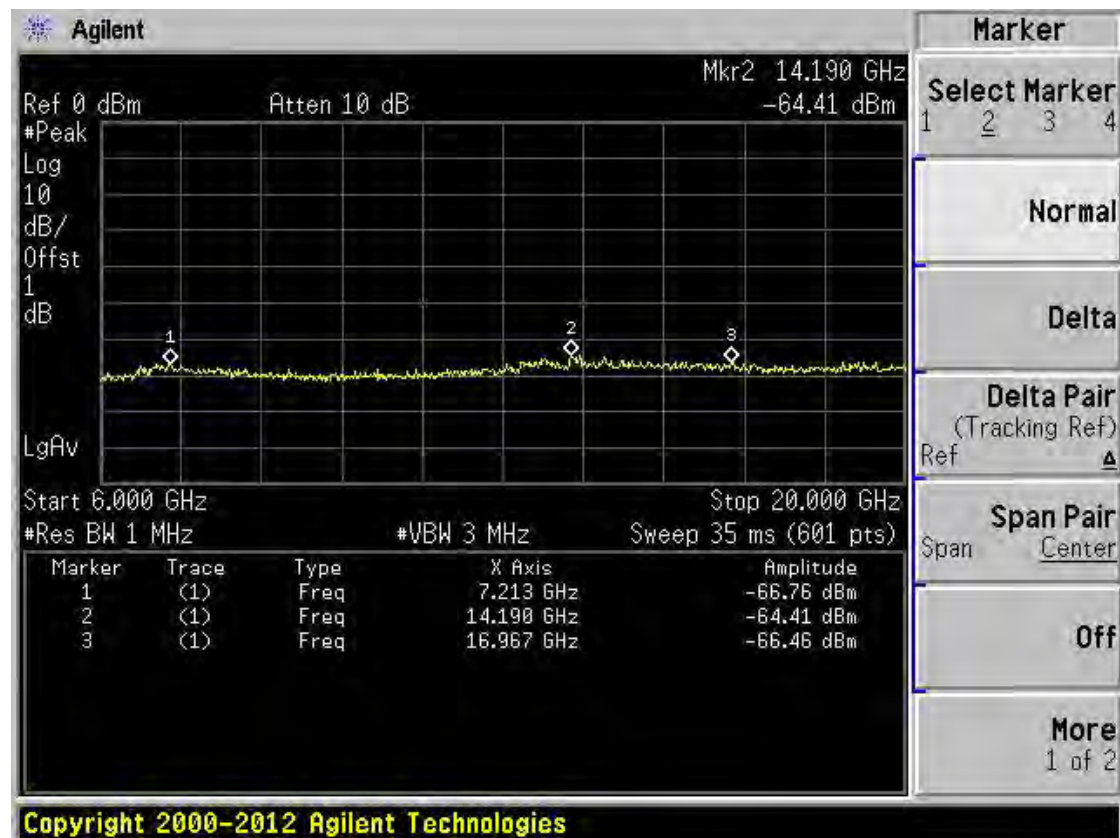
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT20) CH36

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -66.76 | 0 | 3 | 23 | PK | 51.50 | 68.20 | 16.70 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -64.41 | 0 | 3 | 23 | PK | 53.85 | 68.20 | 14.35 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 16967 | -66.46 | 0 | 3 | 23 | PK | 51.80 | 68.20 | 16.40 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT20) CH36, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

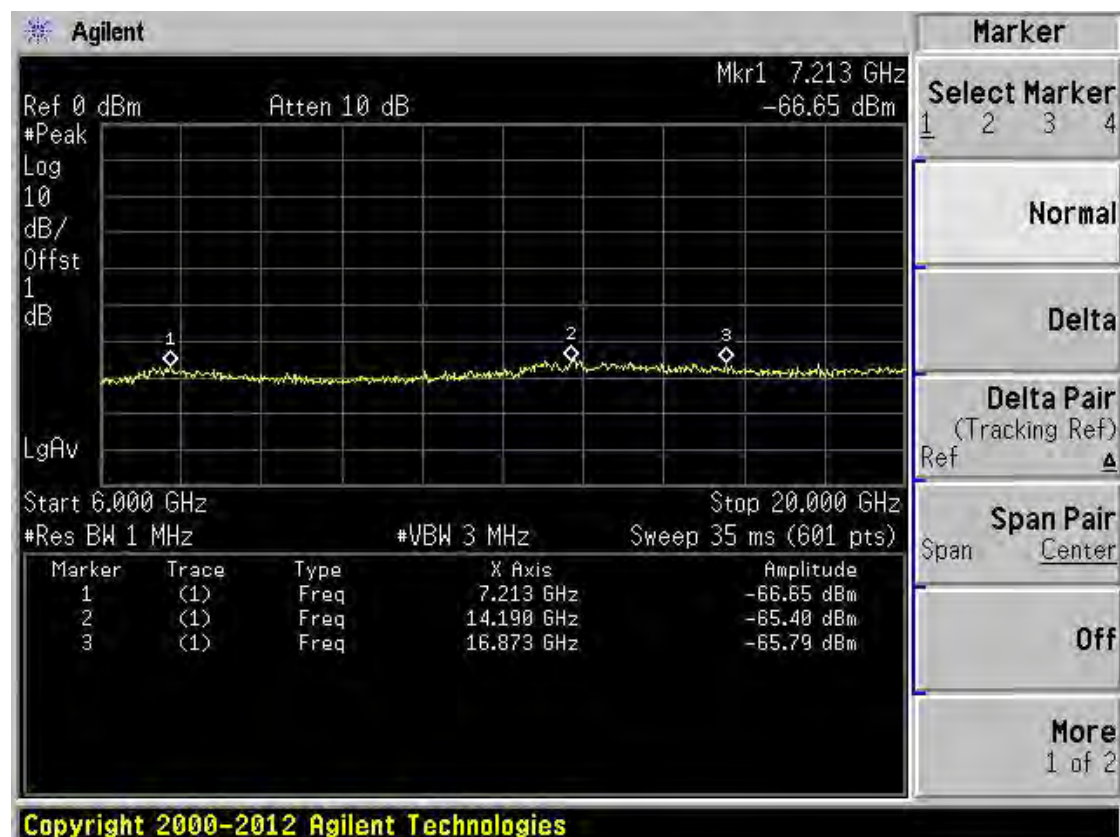
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT20) CH40

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -66.65 | 0 | 3 | 23 | PK | 51.61 | 68.20 | 16.59 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -65.4 | 0 | 3 | 23 | PK | 52.86 | 68.20 | 15.34 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 16873 | -66.65 | 0 | 3 | 23 | PK | 51.61 | 68.20 | 16.59 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT20) CH40, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

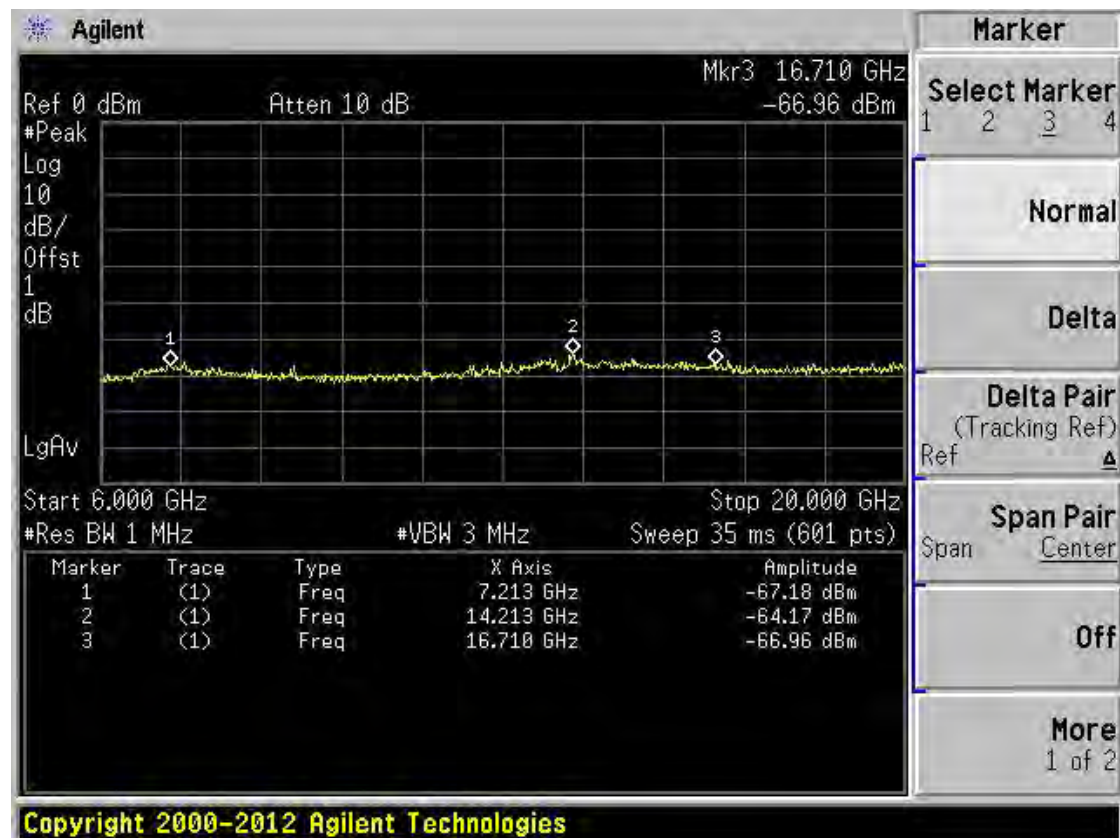
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT20) CH48

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -67.17 | 0 | 3 | 23 | PK | 51.09 | 68.20 | 17.11 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -64.17 | 0 | 3 | 23 | PK | 54.09 | 68.20 | 14.11 | Note 1 | PASS |
| | -75.68 | | 3 | 23 | AV | 42.58 | 54.00 | 11.42 | -- | PASS |
| 16710 | -66.96 | 0 | 3 | 23 | PK | 51.30 | 68.20 | 16.90 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT20) CH48, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

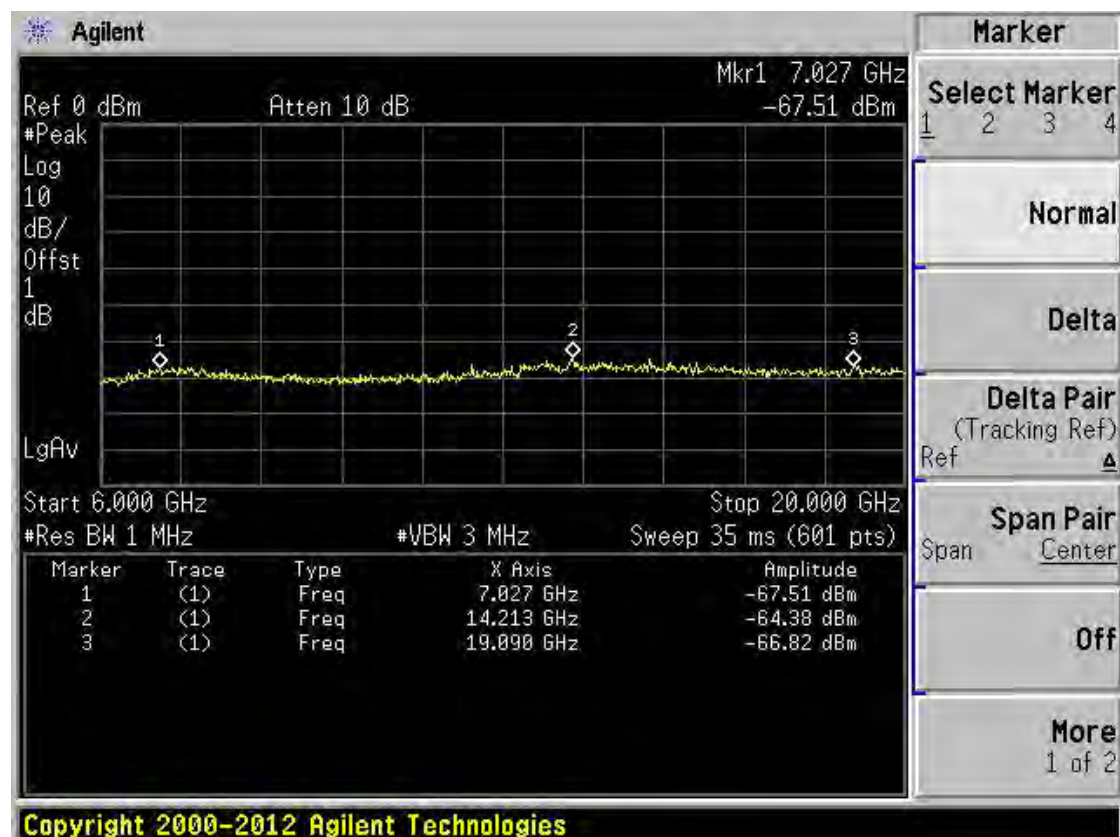
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT40) CH38

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7027 | -67.51 | 0 | 3 | 23 | PK | 50.75 | 68.20 | 17.45 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -64.38 | 0 | 3 | 23 | PK | 53.88 | 68.20 | 14.32 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 19090 | -66.82 | 0 | 3 | 23 | PK | 51.44 | 68.20 | 16.76 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT40) CH38, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

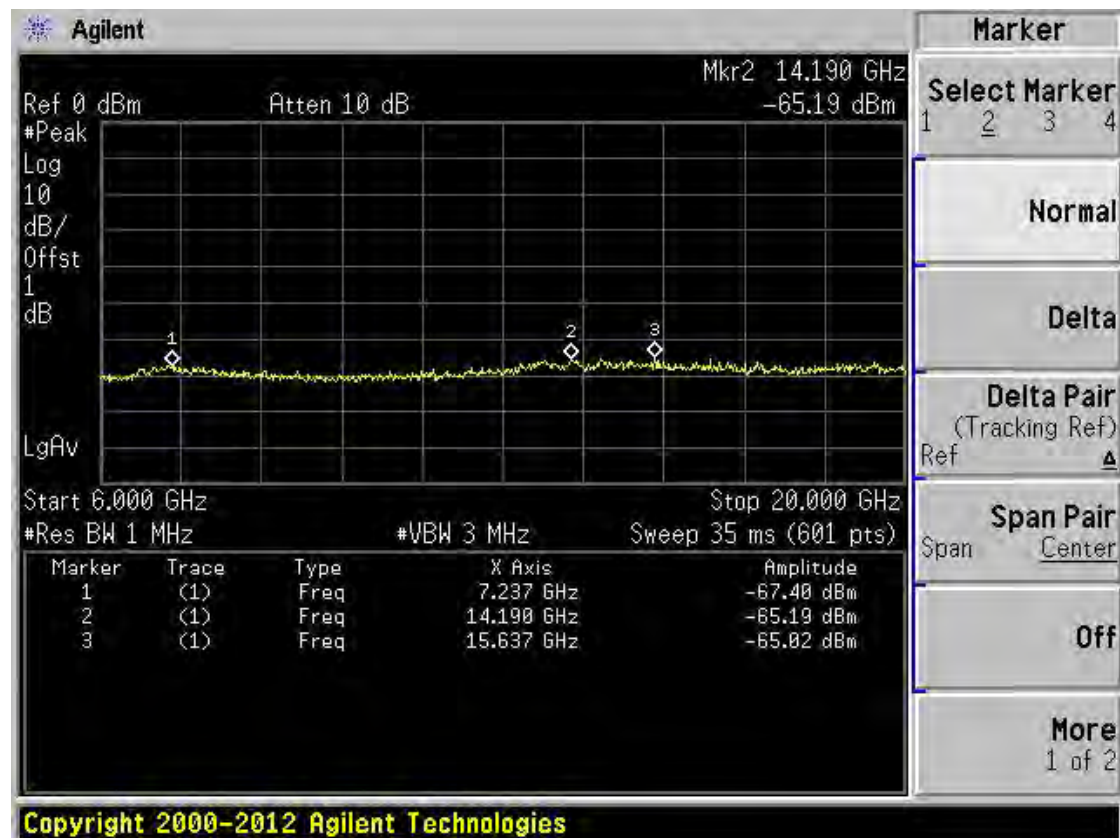
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT40) CH46

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7237 | -67.4 | 0 | 3 | 23 | PK | 50.86 | 68.20 | 17.34 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -65.19 | 0 | 3 | 23 | PK | 53.07 | 68.20 | 15.13 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 15637 | -65.02 | 0 | 3 | 23 | PK | 53.24 | 68.20 | 14.96 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT40) CH46, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

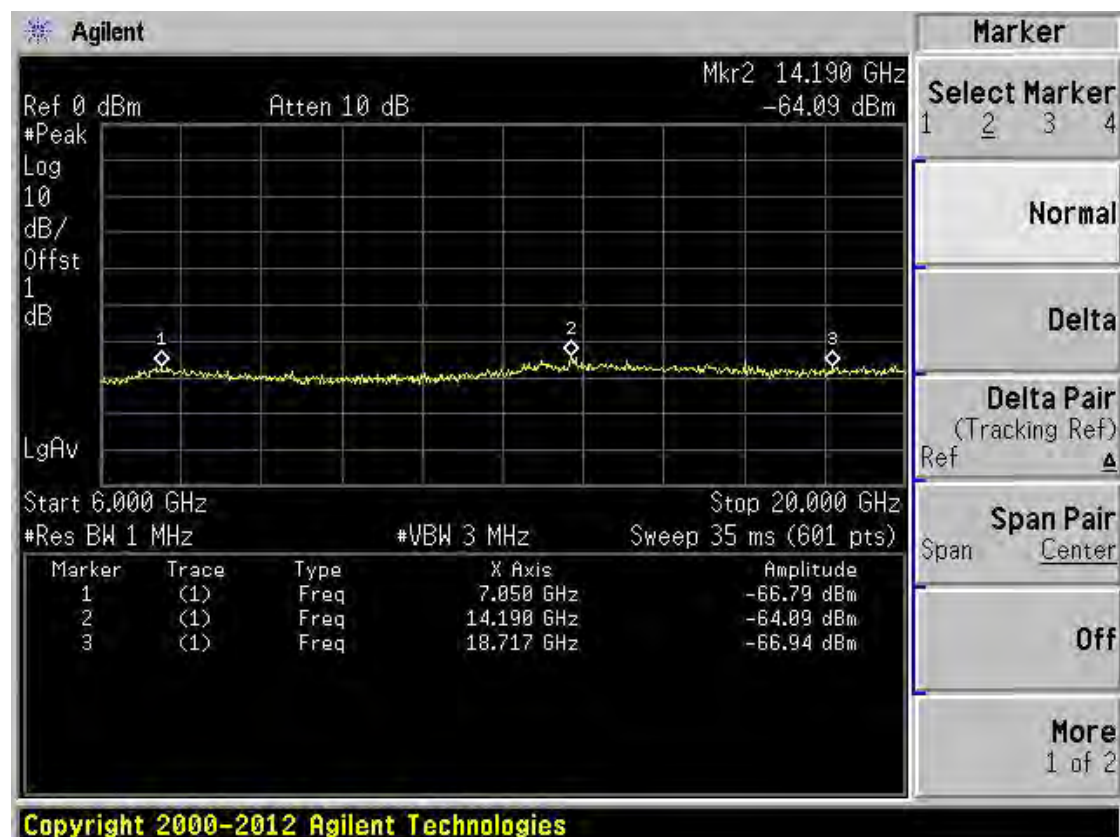
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band I 11ac(HT80) CH42

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7050 | -66.79 | 0 | 3 | 23 | PK | 51.47 | 68.20 | 16.73 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -64.09 | 0 | 3 | 23 | PK | 54.17 | 68.20 | 14.03 | Note 1 | PASS |
| | -78.16 | | 3 | 23 | AV | 40.10 | 54.00 | 13.90 | -- | PASS |
| 18717 | -66.94 | 0 | 3 | 23 | PK | 51.32 | 68.20 | 16.88 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band I 11ac(HT80) CH42, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

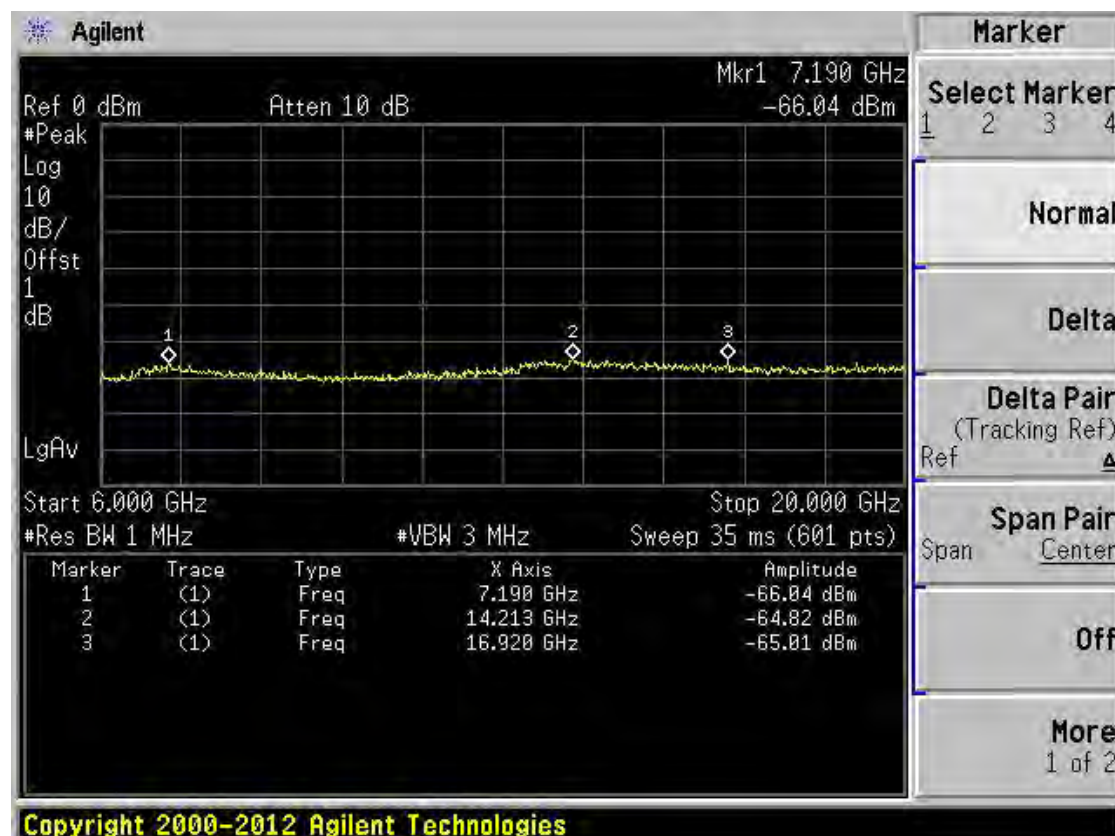
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11a CH149

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7190 | -66.04 | 0 | 3 | 23 | PK | 52.22 | 68.20 | 15.98 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.0 | N/A | Note 2 | PASS |
| 14213 | -64.82 | 0 | 3 | 23 | PK | 53.44 | 68.20 | 14.76 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.0 | N/A | Note 2 | PASS |
| 16920 | -65.01 | 0 | 3 | 23 | PK | 53.25 | 68.20 | 14.95 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.0 | N/A | Note 2 | PASS |

Test Plots

Band IV 11a CH149, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

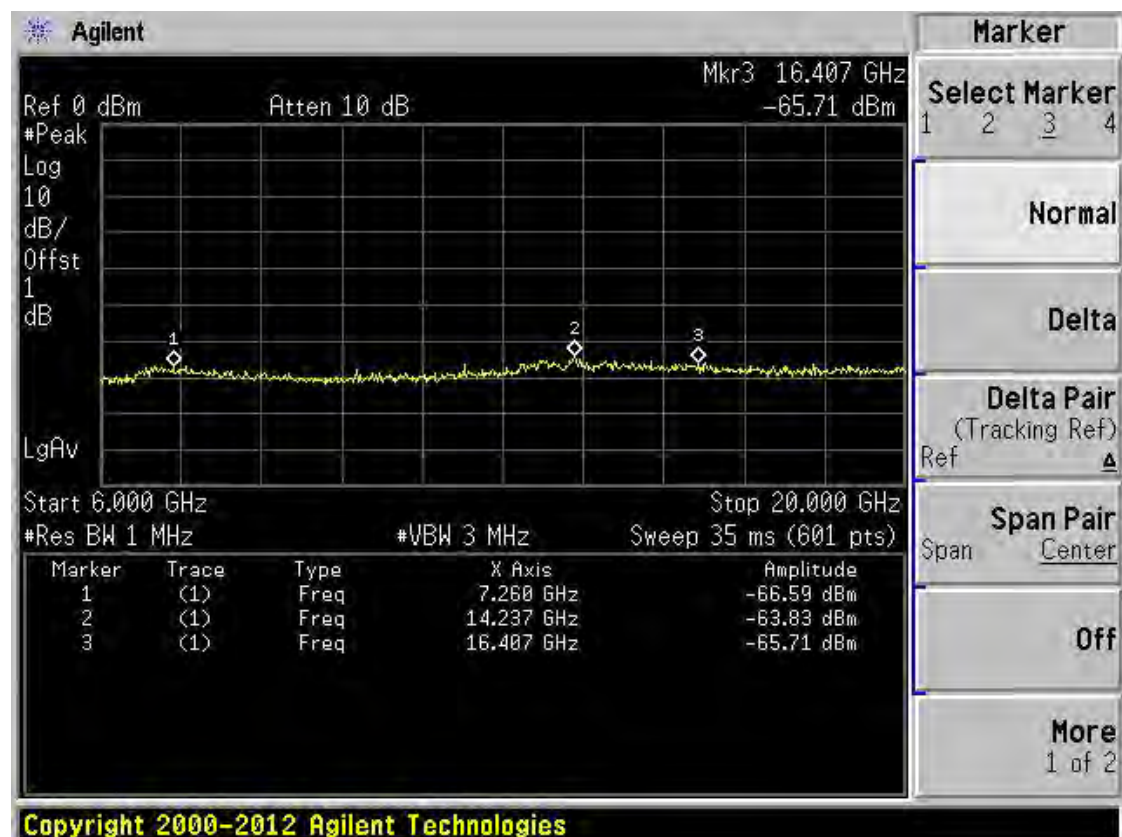
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11a CH157

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7260 | -66.59 | 0 | 3 | 23 | PK | 51.67 | 68.20 | 16.53 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14237 | -63.83 | 0 | 3 | 23 | PK | 54.43 | 68.20 | 13.77 | Note 1 | PASS |
| | -79.65 | | 3 | 23 | AV | 38.61 | 54.50 | 15.39 | -- | PASS |
| 16407 | -65.71 | 0 | 3 | 23 | PK | 52.55 | 68.20 | 15.65 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11a CH157, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

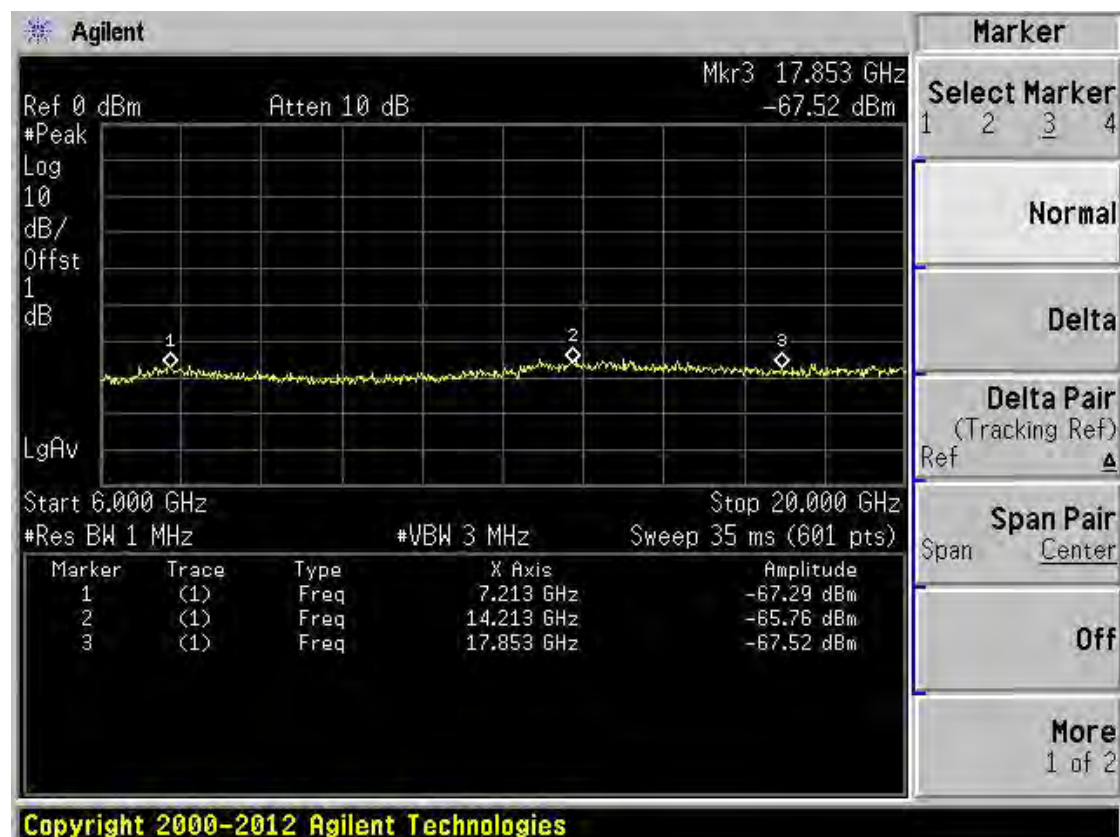
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11a CH165

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -67.29 | 0 | 3 | 23 | PK | 50.97 | 68.20 | 17.23 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -65.76 | 0 | 3 | 23 | PK | 52.50 | 68.20 | 15.70 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17853 | -67.52 | 0 | 3 | 23 | PK | 50.74 | 68.20 | 17.46 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11a CH165, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

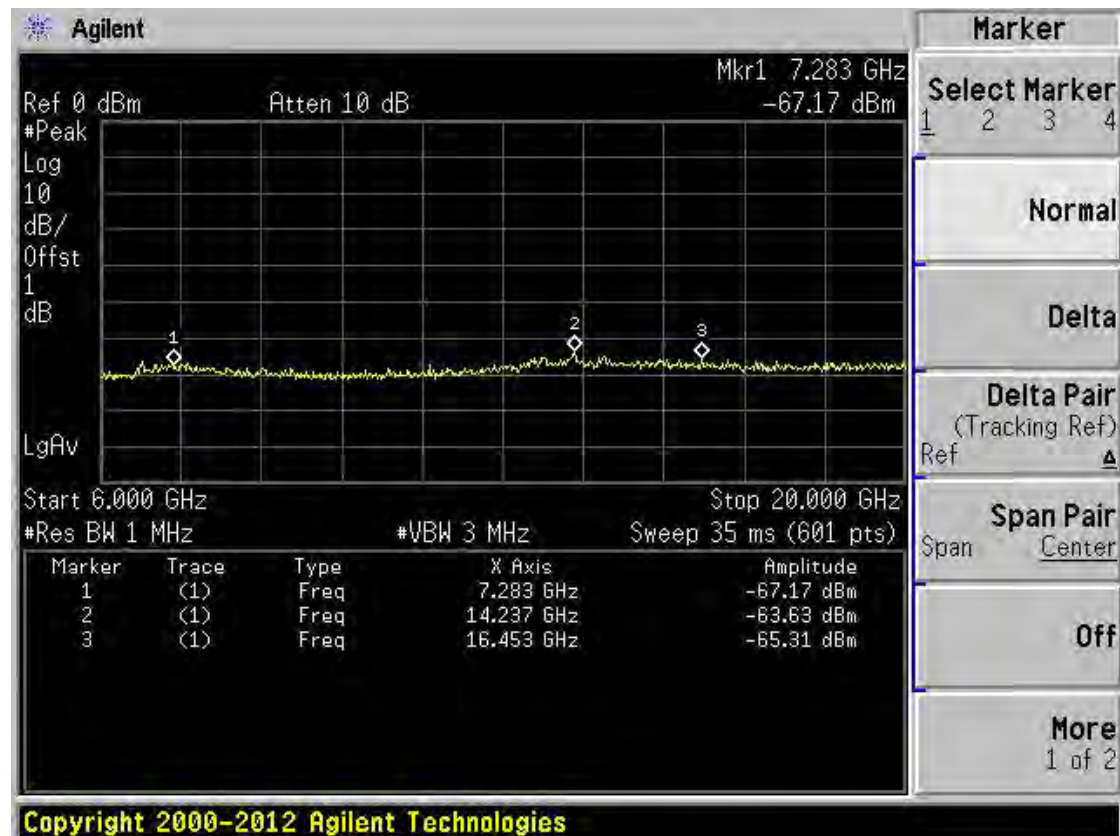
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11n(HT20) CH149

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7283 | -67.17 | 0 | 3 | 23 | PK | 51.09 | 68.20 | 17.11 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14237 | -63.63 | 0 | 3 | 23 | PK | 54.63 | 68.20 | 13.57 | Note 1 | PASS |
| | -79.05 | | 3 | 23 | AV | 39.21 | 54.00 | 14.79 | -- | PASS |
| 16453 | -65.31 | 0 | 3 | 23 | PK | 52.95 | 68.20 | 15.25 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11n(HT20) CH149, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

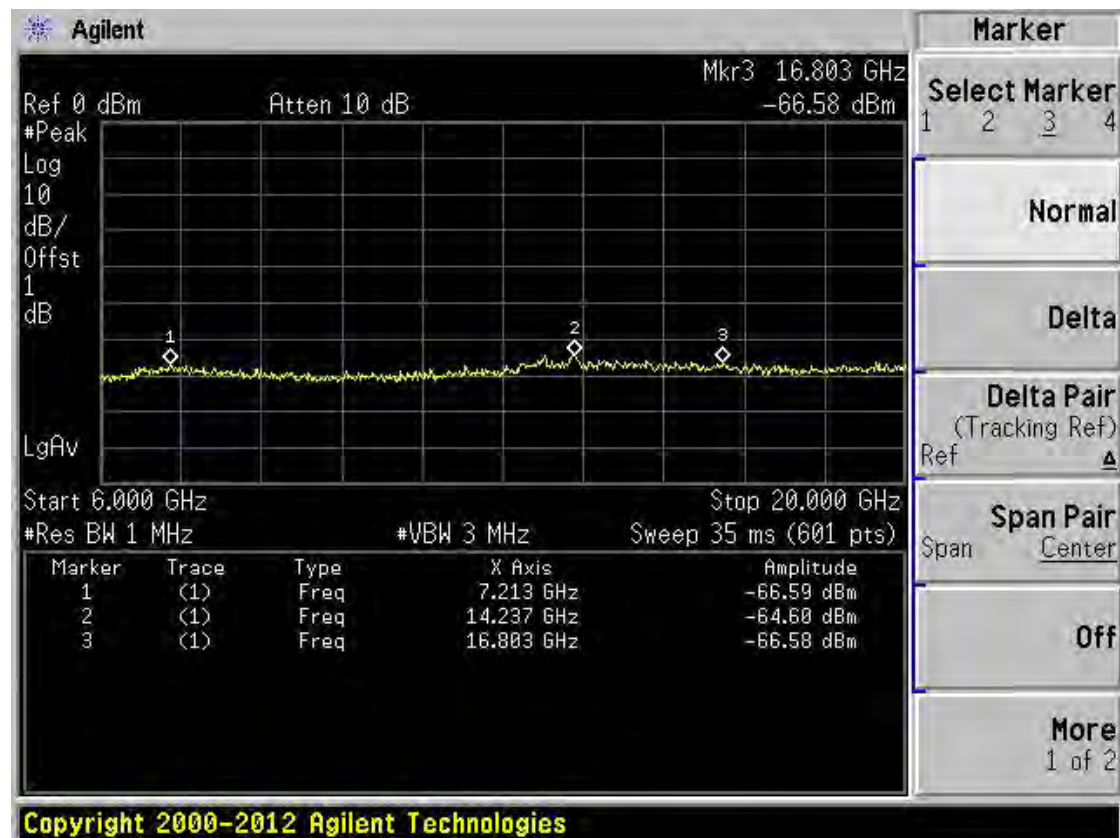
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11n(HT20) CH157

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -66.59 | 0 | 3 | 23 | PK | 51.67 | 68.20 | 16.53 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14237 | -64.6 | 0 | 3 | 23 | PK | 53.66 | 68.20 | 14.54 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 16803 | -66.58 | 0 | 3 | 23 | PK | 51.68 | 68.20 | 16.52 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11n(HT20) CH157, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

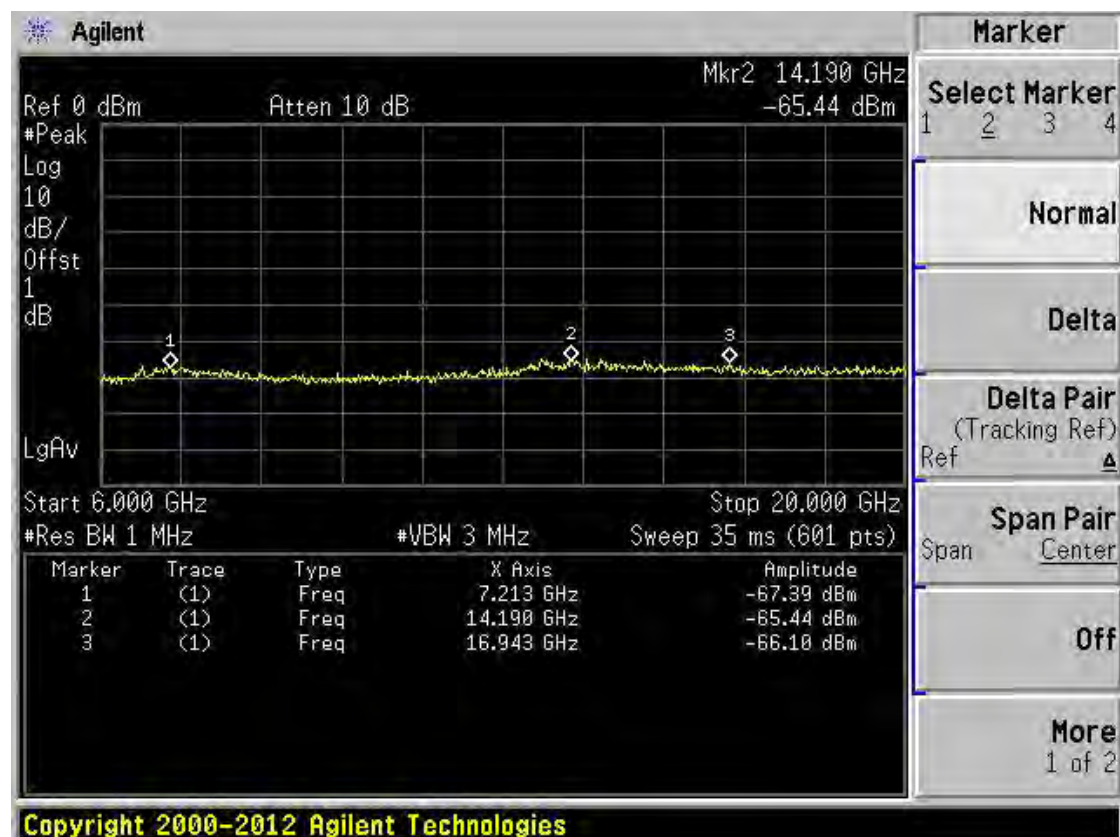
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11n(HT20) CH165

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -67.39 | 0 | 3 | 23 | PK | 50.87 | 68.20 | 17.33 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14190 | -65.44 | 0 | 3 | 23 | PK | 52.82 | 68.20 | 15.38 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 16943 | -66.1 | 0 | 3 | 23 | PK | 52.16 | 68.20 | 16.04 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11n(HT20) CH165, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

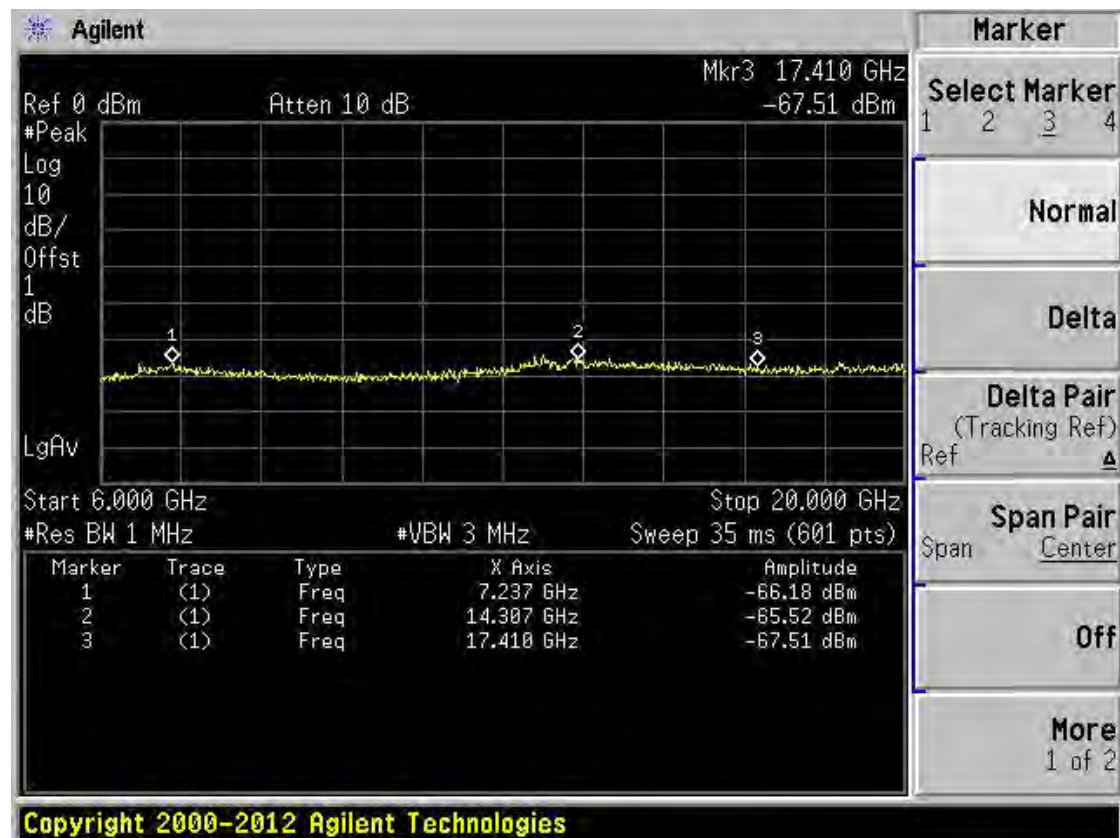
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11n(HT40) CH151

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7237 | -66.18 | 0 | 3 | 23 | PK | 52.08 | 68.20 | 16.12 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14307 | -65.52 | 0 | 3 | 23 | PK | 52.74 | 68.20 | 15.46 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17410 | -67.51 | 0 | 3 | 23 | PK | 50.75 | 68.20 | 17.45 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11n(HT40) CH151, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

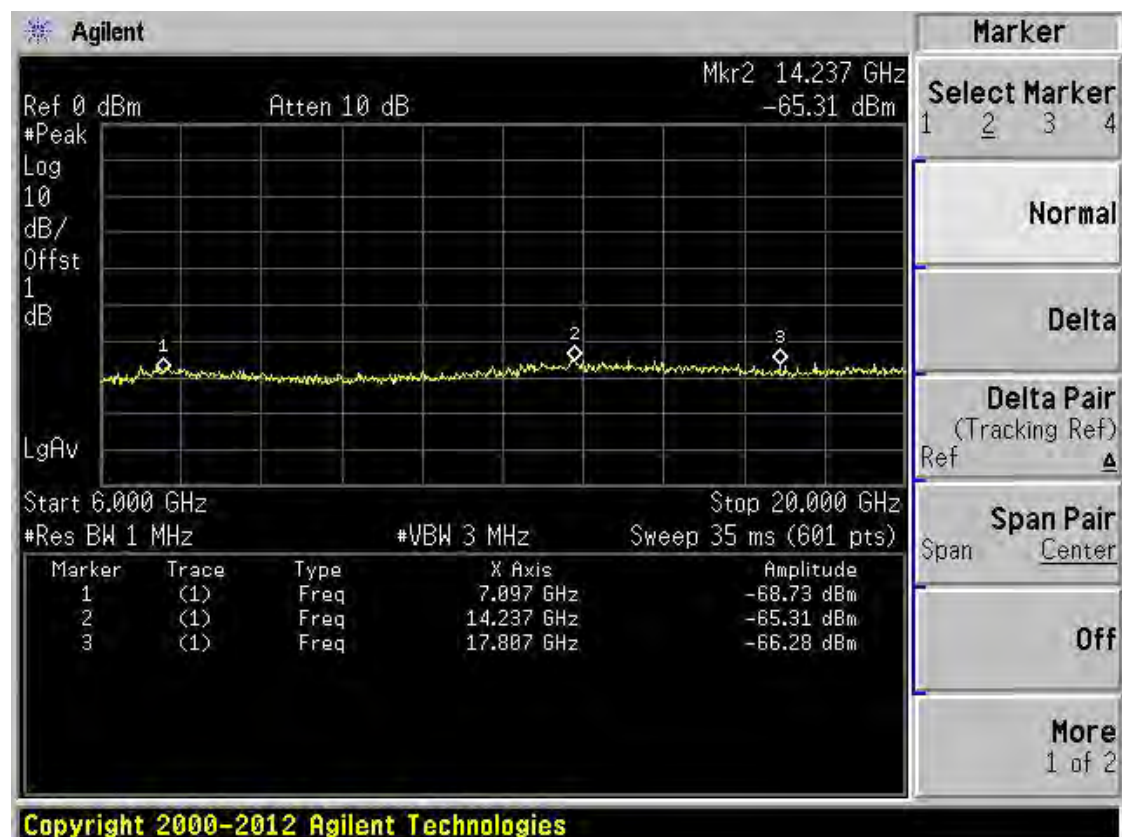
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11n(HT40) CH159

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7097 | -68.73 | 0 | 3 | 23 | PK | 49.53 | 68.20 | 18.67 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14237 | -65.31 | 0 | 3 | 23 | PK | 52.95 | 68.20 | 15.25 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17807 | -66.28 | 0 | 3 | 23 | PK | 51.98 | 68.20 | 16.22 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11n(HT40) CH159, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

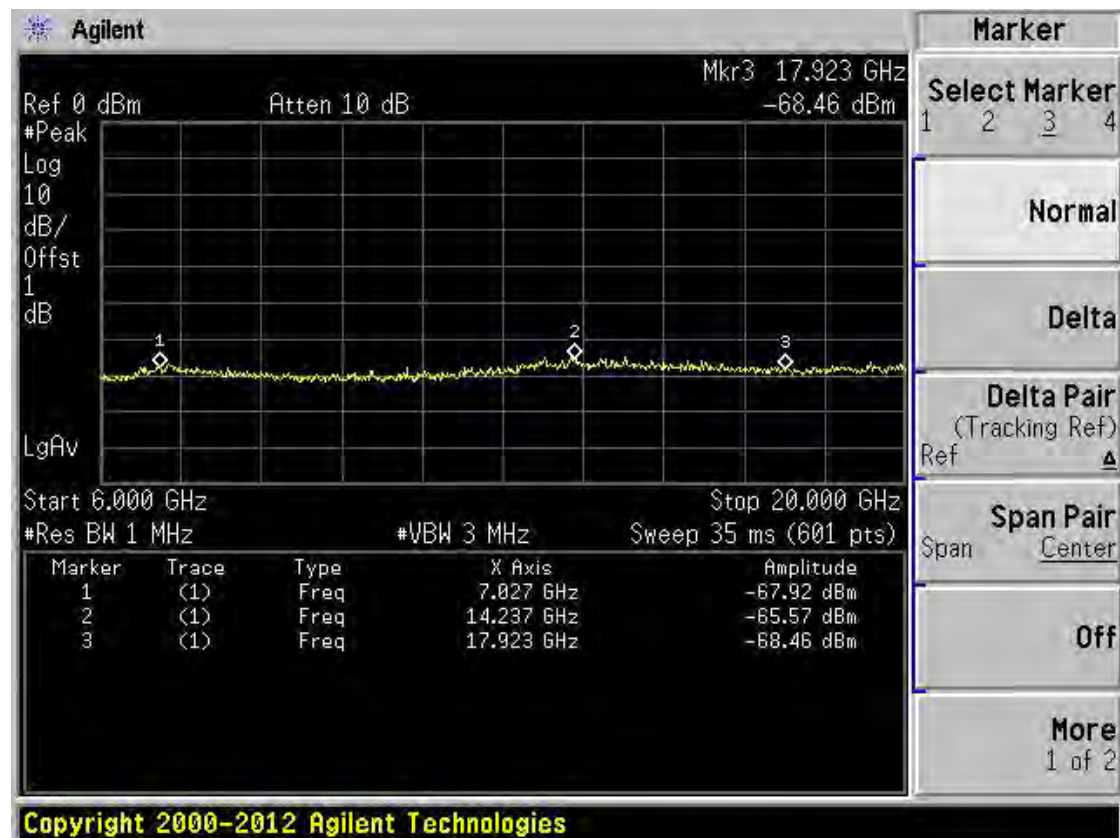
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT20) CH149

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7027 | -67.92 | 0 | 3 | 23 | PK | 50.34 | 68.20 | 17.86 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14237 | -65.57 | 0 | 3 | 23 | PK | 52.69 | 68.20 | 15.51 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17923 | -68.46 | 0 | 3 | 23 | PK | 49.80 | 68.20 | 18.40 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT20) CH149, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

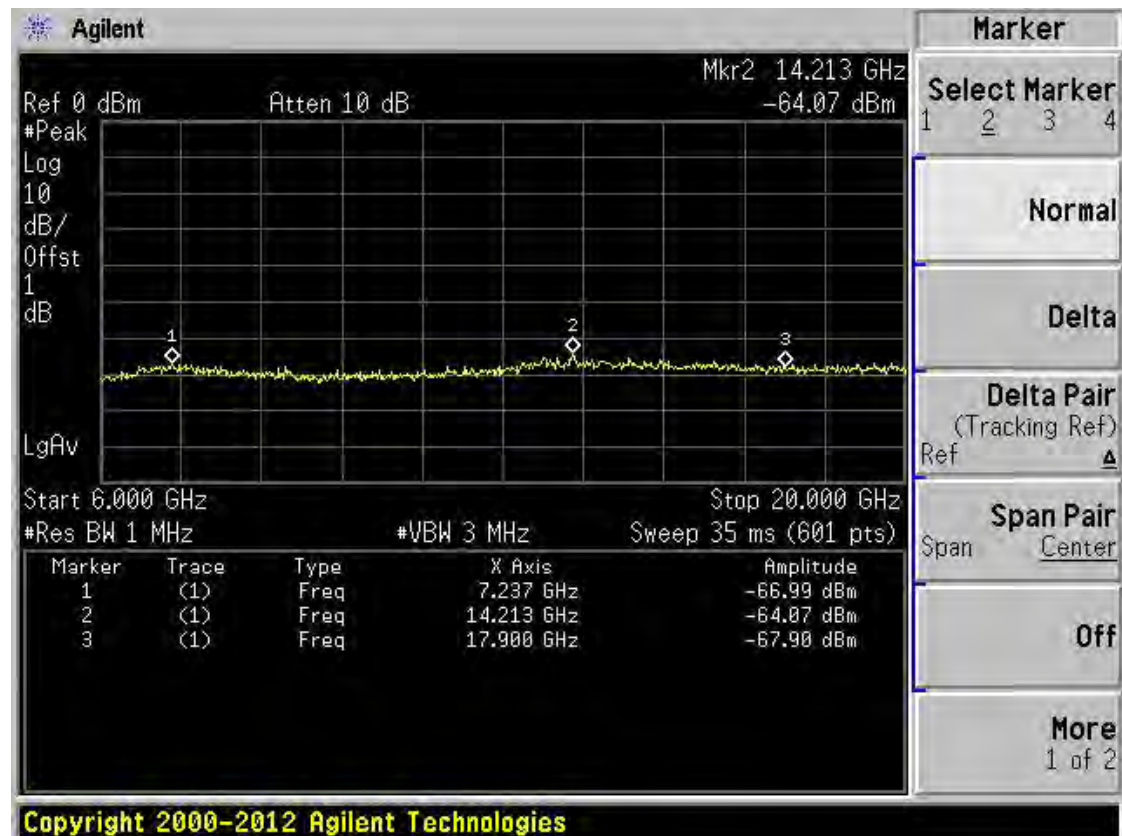
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT20) CH157

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7237 | -66.99 | 0 | 3 | 23 | PK | 51.27 | 68.20 | 16.93 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -64.07 | 0 | 3 | 23 | PK | 54.19 | 68.20 | 14.01 | Note 1 | PASS |
| | -75.64 | | 3 | 23 | AV | 42.62 | 54.00 | 11.38 | -- | PASS |
| 17900 | -67.9 | 0 | 3 | 23 | PK | 50.36 | 68.20 | 17.84 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT20) CH157, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

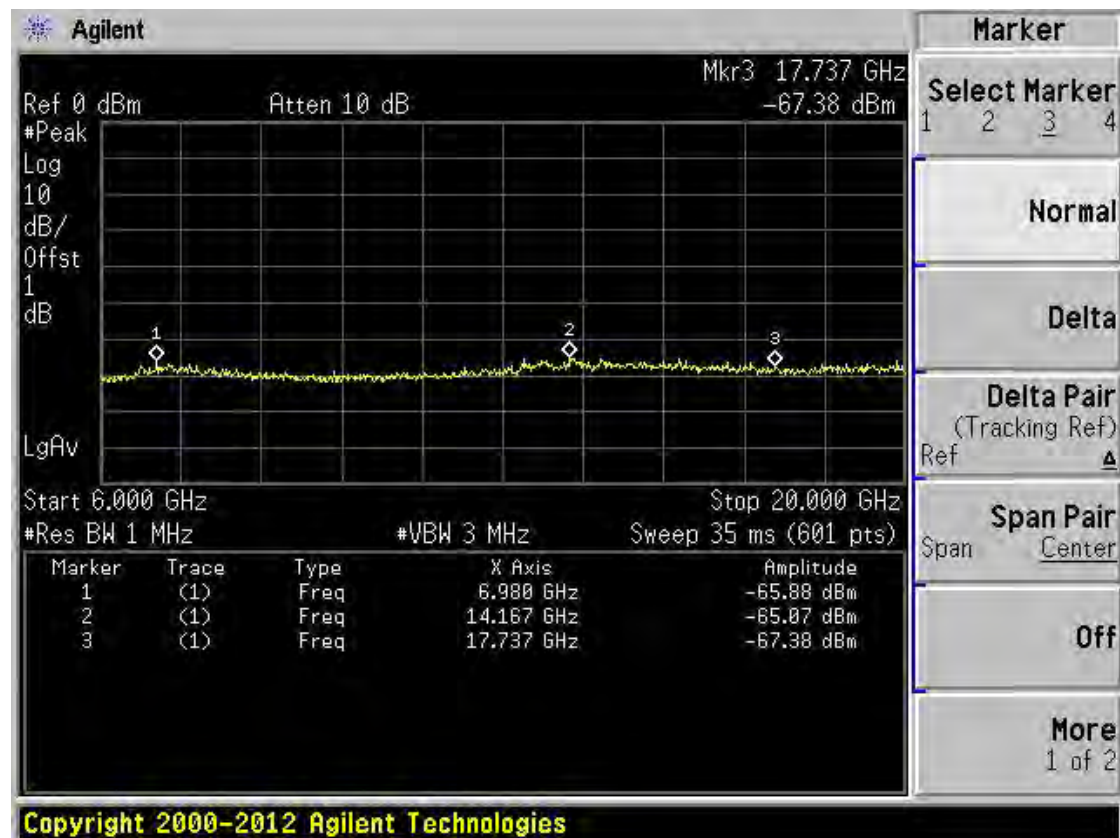
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT20) CH165

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 6980 | -65.88 | 0 | 3 | 23 | PK | 52.38 | 68.20 | 15.82 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14167 | -65.07 | 0 | 3 | 23 | PK | 53.19 | 68.20 | 15.01 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17377 | -67.38 | 0 | 3 | 23 | PK | 50.88 | 68.20 | 17.32 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT20) CH165, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

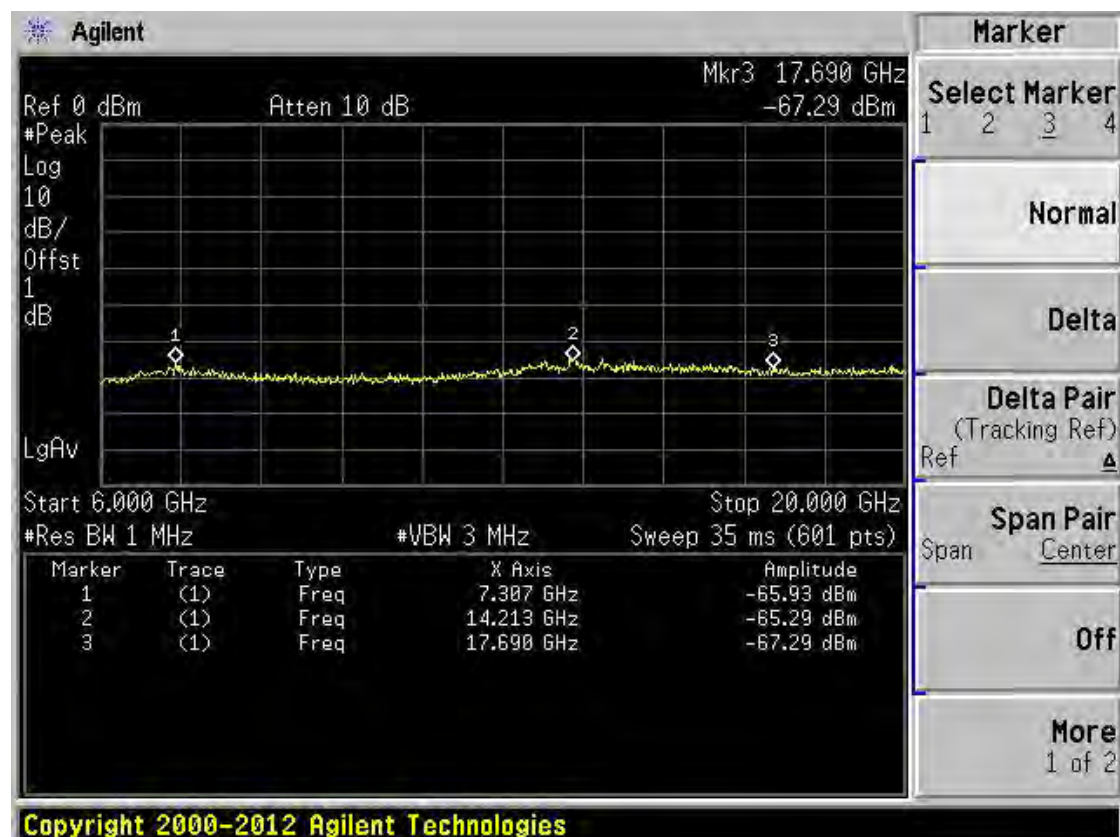
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT40) CH151

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7307 | -65.93 | 0 | 3 | 23 | PK | 52.33 | 68.20 | 15.87 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -65.29 | 0 | 3 | 23 | PK | 52.97 | 68.20 | 15.23 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17690 | -67.29 | 0 | 3 | 23 | PK | 50.97 | 68.20 | 17.23 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT40) CH151, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

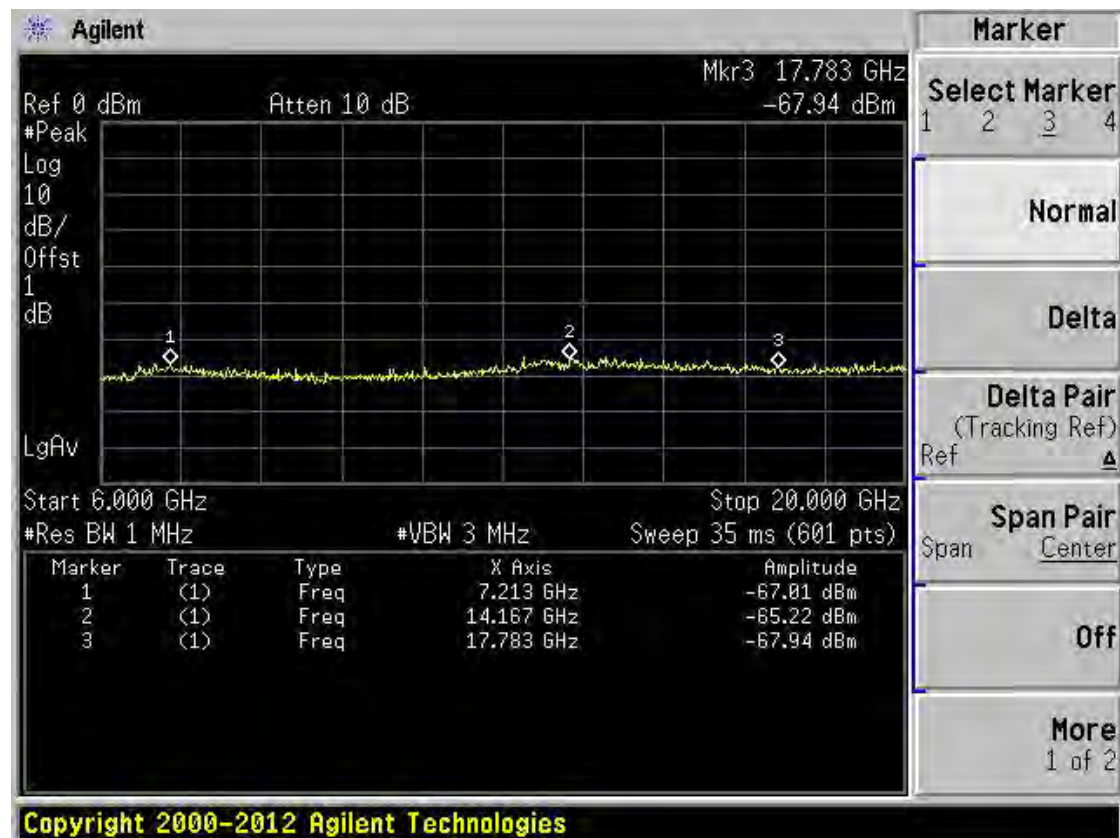
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT40) CH159

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -67.01 | 0 | 3 | 23 | PK | 51.25 | 68.20 | 16.95 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14167 | -65.22 | 0 | 3 | 23 | PK | 53.04 | 68.20 | 15.16 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17783 | -67.94 | 0 | 3 | 23 | PK | 50.32 | 68.20 | 17.88 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT40) CH159, SPURIOUS 6 GHz ~ 20 GHz



The EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2dBi, whichever is greater.

And the maximum in-band gain of the antenna is 23 dBi.

Note 1: The limit line is -27 dBm (68.2 dBuV/m@3m).

Note 2: Average measurement was not performed if peak level went lower than the average limit.

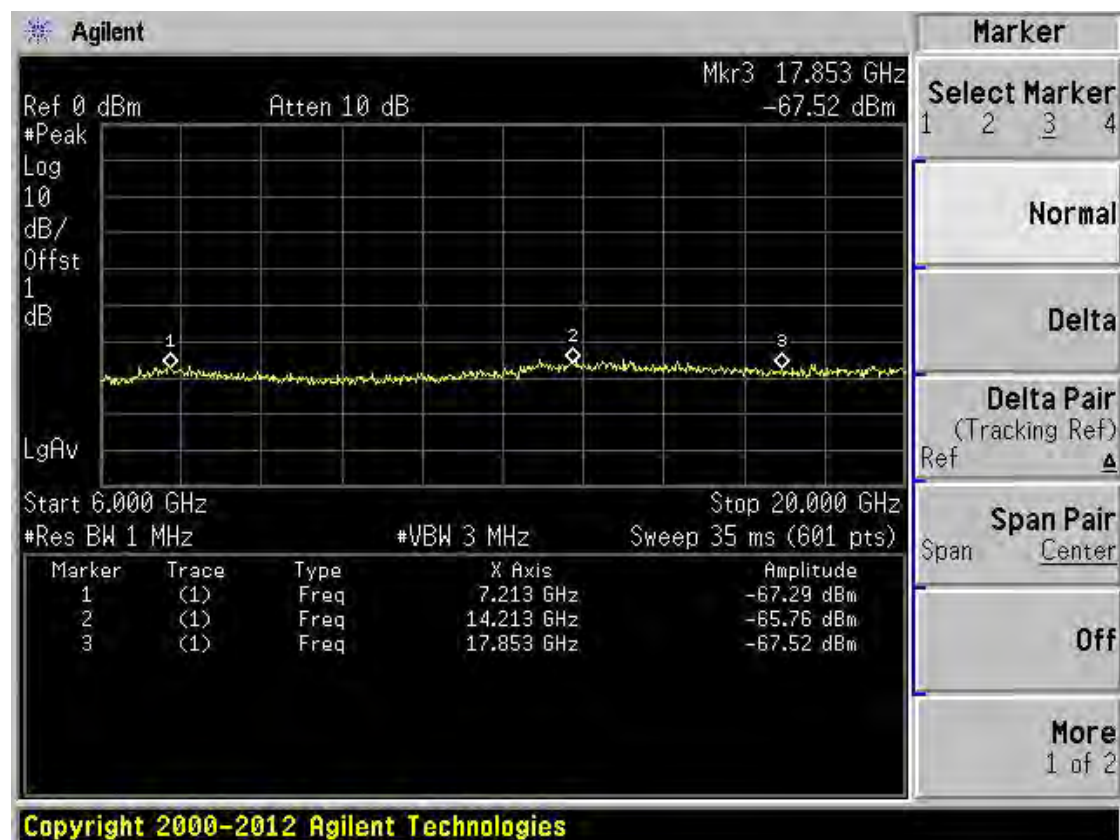
Note 3: The harmonic (2th, 3th, 4th, etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.

Band IV 11ac(HT80) CH155

| Frequency (MHz) | Value (dBm) | Ground Reflection Factor (dB) | D (m) | Max gain (dBi) | Detector | E (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark | Verdict |
|-----------------|-------------|-------------------------------|-------|----------------|----------|------------|----------------|-------------|--------|---------|
| 7213 | -67.29 | 0 | 3 | 23 | PK | 50.97 | 68.20 | 17.23 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 14213 | -65.76 | 0 | 3 | 23 | PK | 52.50 | 68.20 | 15.70 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |
| 17853 | -67.52 | 0 | 3 | 23 | PK | 50.74 | 68.20 | 17.46 | Note 1 | PASS |
| | N/A | | 3 | 23 | AV | N/A | 54.00 | N/A | Note 2 | PASS |

Test Plots

Band IV 11ac(HT80) CH155, SPURIOUS 6 GHz ~ 20 GHz



Test Frequency: 20 GHz ~ 40 GHz

Note: Only noise floor was seen above 20 GHz and not reported.

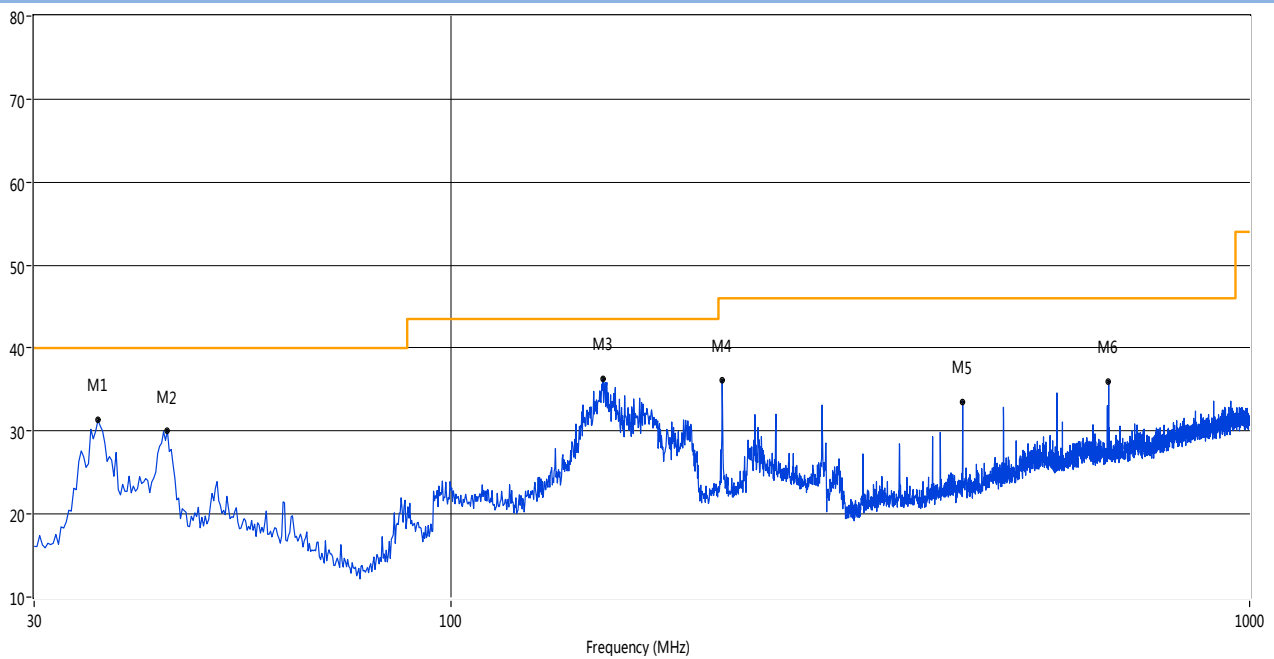
Cabinet Radiated spurious emission test

Note 1: The symbol of “--” in the table which means not application.

Note 2: For the test data above 1 GHz, According the ANSI C63.4, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

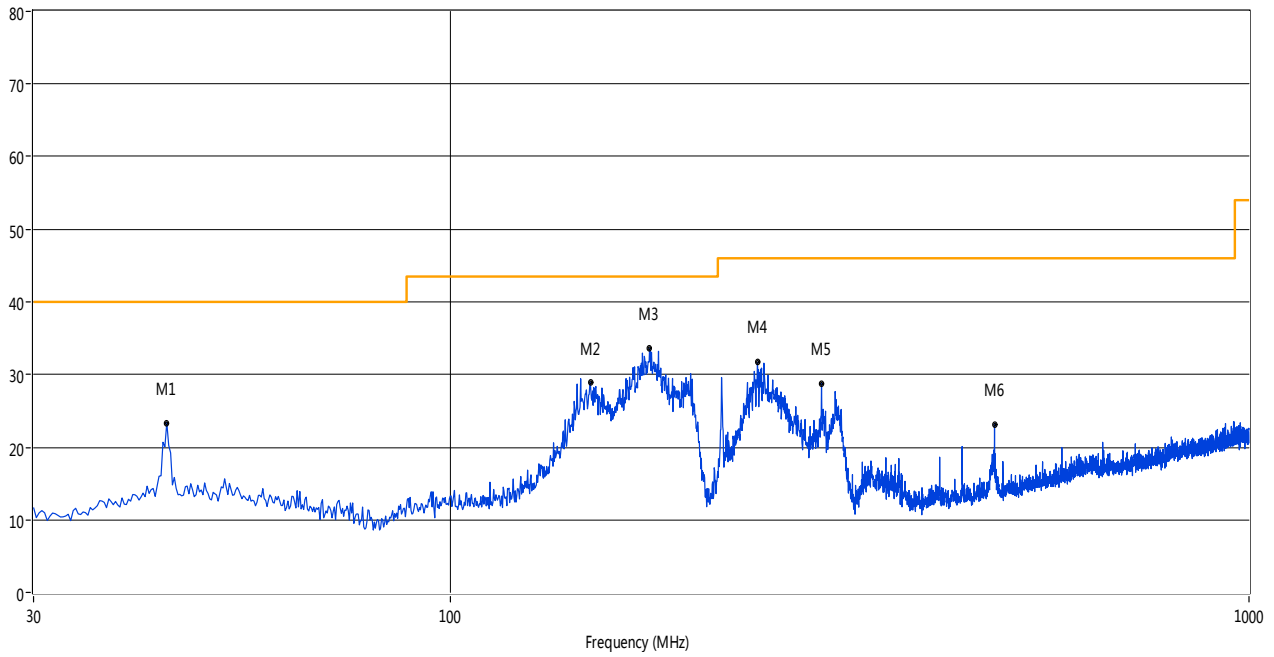
Note 3: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

30 MHz to 1 GHz, ANT V



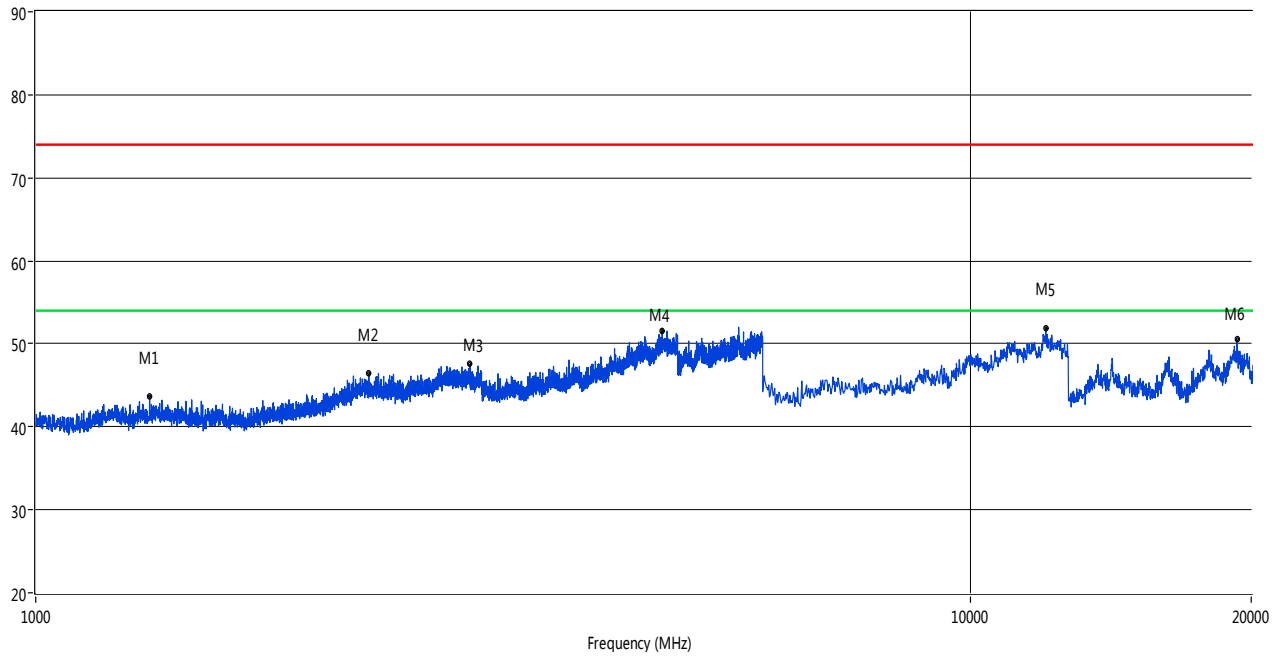
| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|----------|---------|
| 1 | 36.06 | 31.30 | -21.00 | 40.0 | 8.70 | Peak | 339.00 | 100 | Vertical | PASS |
| 2 | 44.06 | 30.04 | -18.90 | 40.0 | 9.96 | Peak | 92.70 | 100 | Vertical | PASS |
| 3 | 154.86 | 36.32 | -23.33 | 43.5 | 7.18 | Peak | 243.40 | 100 | Vertical | PASS |
| 4 | 218.37 | 26.18 | -20.04 | 46.0 | 19.82 | Peak | 243.40 | 100 | Vertical | PASS |
| 5 | 437.06 | 23.57 | -14.59 | 46.0 | 22.43 | Peak | 348.50 | 100 | Vertical | PASS |
| 6 | 665.92 | 25.98 | -10.02 | 46.0 | 20.02 | Peak | 260.40 | 100 | Vertical | PASS |

30 MHz to 1 GHz, ANT H



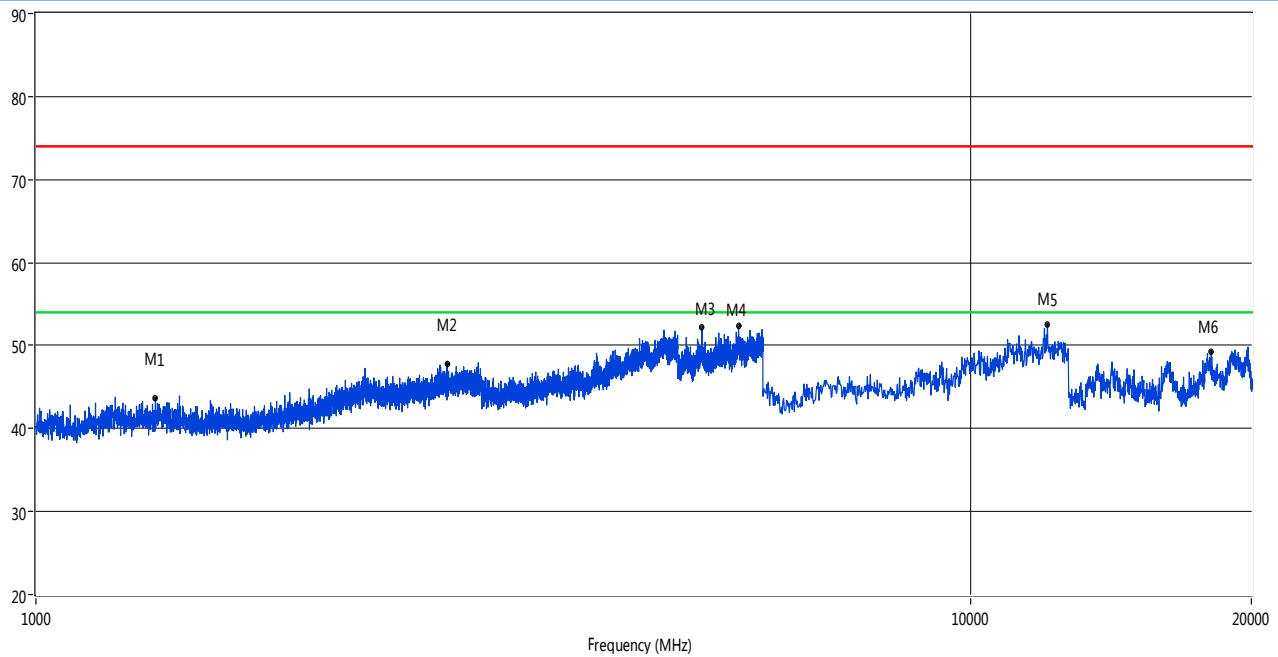
| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|------------|---------|
| 1 | 44.06 | 23.37 | -18.90 | 40.0 | 16.63 | Peak | 41.00 | 100 | Horizontal | PASS |
| 2 | 149.52 | 28.91 | -23.48 | 43.5 | 14.59 | Peak | 16.00 | 100 | Horizontal | PASS |
| 3 | 177.40 | 33.56 | -22.22 | 43.5 | 9.94 | Peak | 113.00 | 100 | Horizontal | PASS |
| 4 | 242.13 | 31.68 | -19.13 | 46.0 | 14.32 | Peak | 302.00 | 100 | Horizontal | PASS |
| 5 | 291.35 | 28.80 | -17.96 | 46.0 | 17.20 | Peak | 89.00 | 100 | Horizontal | PASS |
| 6 | 479.97 | 23.18 | -13.81 | 46.0 | 22.82 | Peak | 225.00 | 100 | Horizontal | PASS |

1 GHz to 20 GHz, ANT V



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|----------|---------|
| 1 | 1323.92 | 43.72 | -4.79 | 74.0 | 30.28 | Peak | 132.30 | 100 | Vertical | PASS |
| 2 | 2272.68 | 46.40 | -0.51 | 74.0 | 27.60 | Peak | 99.30 | 100 | Vertical | PASS |
| 3 | 2916.52 | 47.56 | 2.27 | 74.0 | 26.44 | Peak | 243.60 | 100 | Vertical | PASS |
| 4 | 4683.33 | 51.48 | 13.17 | 74.0 | 22.52 | Peak | 271.00 | 100 | Vertical | PASS |
| 5 | 12053.66 | 51.91 | 20.82 | 74.0 | 22.09 | Peak | 269.70 | 100 | Vertical | PASS |
| 6 | 19309.48 | 50.49 | 13.46 | 74.0 | 23.51 | Peak | 57.40 | 100 | Vertical | PASS |

1 GHz to 20 GHz, ANT H



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|------------|---------|
| 1 | 1342.41 | 43.65 | -4.64 | 74.0 | 30.35 | Peak | 43.90 | 100 | Horizontal | PASS |
| 2 | 2754.56 | 47.81 | 1.76 | 74.0 | 26.19 | Peak | 288.60 | 100 | Horizontal | PASS |
| 3 | 5164.71 | 52.16 | 14.92 | 74.0 | 21.84 | Peak | 0.10 | 100 | Horizontal | PASS |
| 4 | 5650.59 | 52.30 | 15.71 | 74.0 | 21.70 | Peak | 359.40 | 100 | Horizontal | PASS |
| 5 | 12098.59 | 52.61 | 20.77 | 74.0 | 21.39 | Peak | 355.00 | 100 | Horizontal | PASS |
| 6 | 18116.06 | 49.29 | 12.97 | 74.0 | 24.71 | Peak | 359.30 | 100 | Horizontal | PASS |

Test Frequency: 20 GHz ~ 40 GHz

Note: Only noise floor was seen above 20 GHz and not reported.

A.8 Frequency Stability

Measurement Data (the worst channel)

5150-5250 MHz band:

Voltage vs. Frequency Stability (Lowest Channel=5180 MHz)

| Test Conditions | | Test Frequency (MHz) | Measurement Frequency (MHz) | Max. Deviation (ppm) |
|------------------|---------------|-------------------------|--------------------------------|-------------------------|
| Temperature (°C) | Voltage (VDC) | | | |
| 20 | 55.2 | 5180 | 5180.010412 | 2.01 |
| | 48.0 | 5180 | 5180.011654 | 2.25 |
| | 40.8 | 5180 | 5180.010716 | 2.07 |

Temperature vs. Frequency Stability (Lowest Channel=5180 MHz)

| Test Conditions | | Test Frequency (MHz) | Measurement Frequency (MHz) | Max. Deviation (ppm) |
|-----------------|------------------|-------------------------|--------------------------------|-------------------------|
| Voltage (VDC) | Temperature (°C) | | | |
| 48.0 | -20 | 5180 | 5180.012684 | 2.45 |
| | -10 | 5180 | 5180.014597 | 2.82 |
| | 0 | 5180 | 5180.015316 | 2.96 |
| | 10 | 5180 | 5180.011367 | 2.19 |
| | 20 | 5180 | 5180.011574 | 2.23 |
| | 30 | 5180 | 5180.009756 | 1.88 |
| | 40 | 5180 | 5180.016513 | 3.19 |
| | 50 | 5180 | 5180.013567 | 2.62 |

5725-58500 MHz band:

Voltage vs. Frequency Stability (Lowest Channel=5745 MHz)

| Test Conditions | | Test Frequency (MHz) | Measurement Frequency (MHz) | Max. Deviation (ppm) |
|------------------|---------------|-------------------------|--------------------------------|-------------------------|
| Temperature (°C) | Voltage (VDC) | | | |
| 20 | 55.2 | 5745 | 5745.009578 | 1.77 |
| | 48.0 | 5745 | 5745.008937 | 1.61 |
| | 40.8 | 5745 | 5745.010265 | 1.51 |

Temperature vs. Frequency Stability (Lowest Channel=5745 MHz)

| Test Conditions | | Test Frequency (MHz) | Measurement Frequency (MHz) | Max. Deviation (ppm) |
|-----------------|------------------|-------------------------|--------------------------------|-------------------------|
| Voltage (VDC) | Temperature (°C) | | | |
| 48.0 | -20 | 5745 | 5745.010178 | 1.77 |
| | -10 | 5745 | 5745.009257 | 1.61 |
| | 0 | 5745 | 5745.008647 | 1.51 |
| | 10 | 5745 | 5745.009562 | 1.66 |
| | 20 | 5745 | 5745.010578 | 1.84 |
| | 30 | 5745 | 5745.008169 | 1.42 |
| | 40 | 5745 | 5745.009364 | 1.63 |
| | 50 | 5745 | 5745.012486 | 2.17 |

--END OF REPORT--