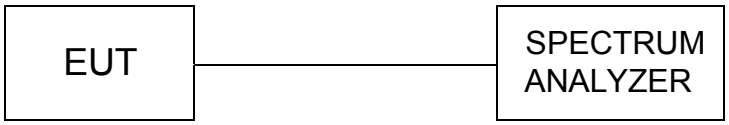
## 4.6. Power Spectral Density Measurement

**TEST CONFIGURATION**




**TEST PROCEDURE**

The EUT was tested according to KDB558074 D01 v03r01 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, VBW≥10KHz, SPAN to 1.5 times greater than the EBW,.

**LIMIT**

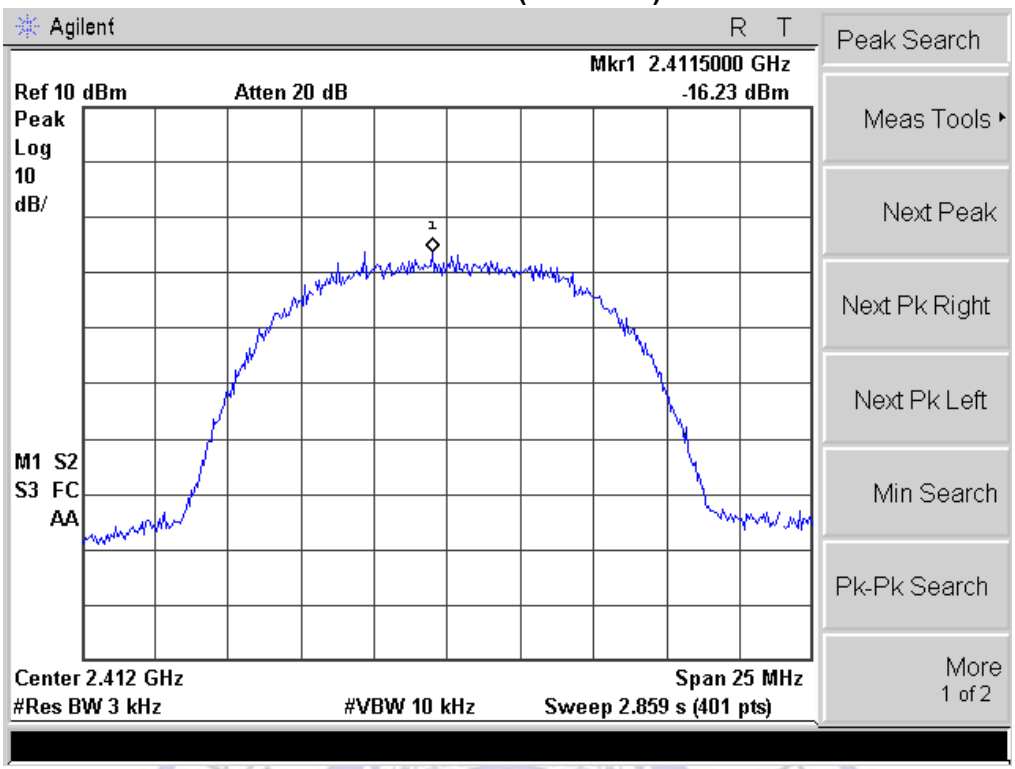
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

**TEST RESULTS**

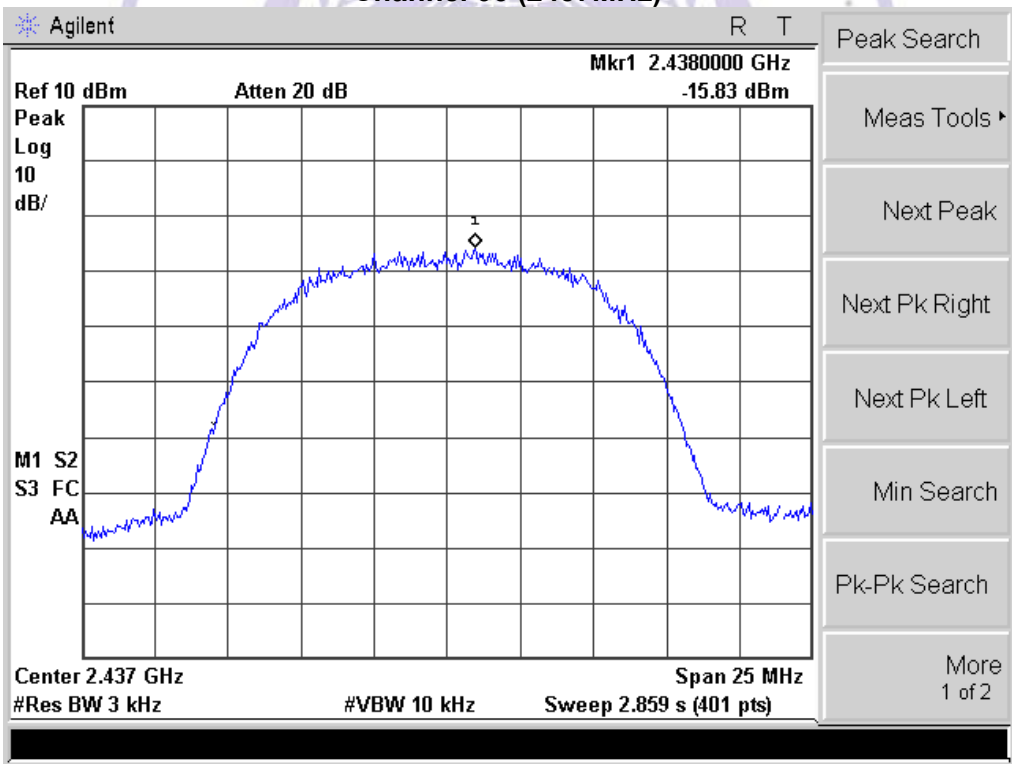
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Power Spectral Density |
| Test Mode | : | Mode 1: Transmit by 802.11b |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -16.23 | 8 | Pass |
| 06 | 2437 | -15.83 | 8 | Pass |
| 11 | 2462 | -15.56 | 8 | Pass |

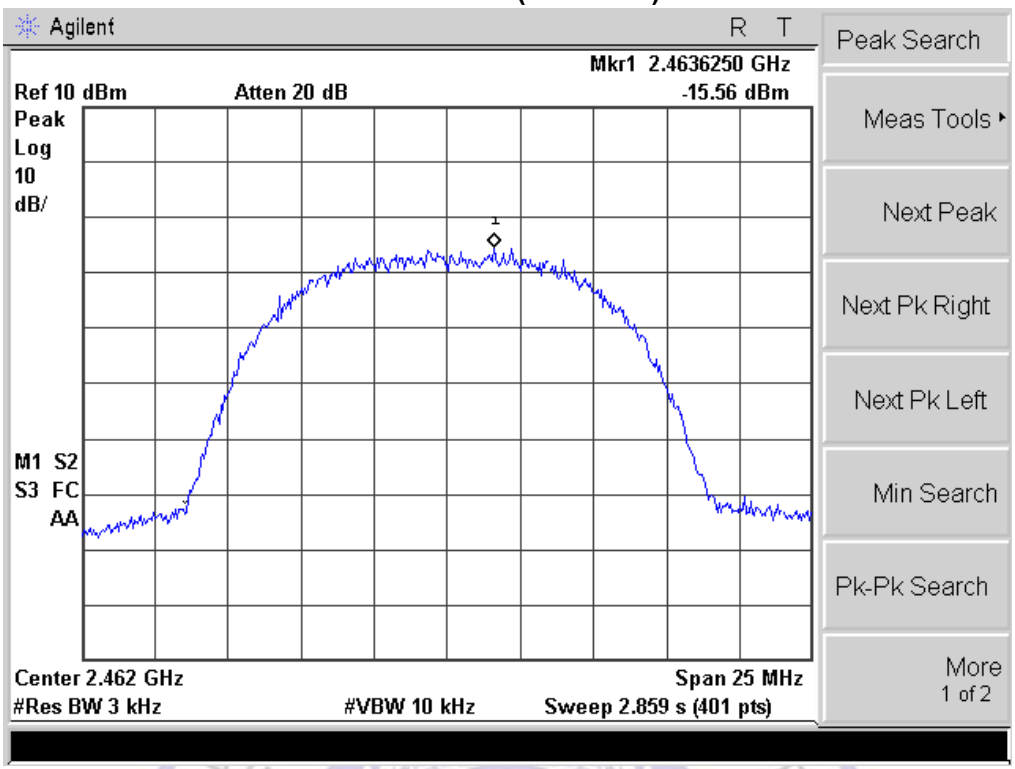
**Channel 01 (2412MHz)**




**Channel 06 (2437MHz)**



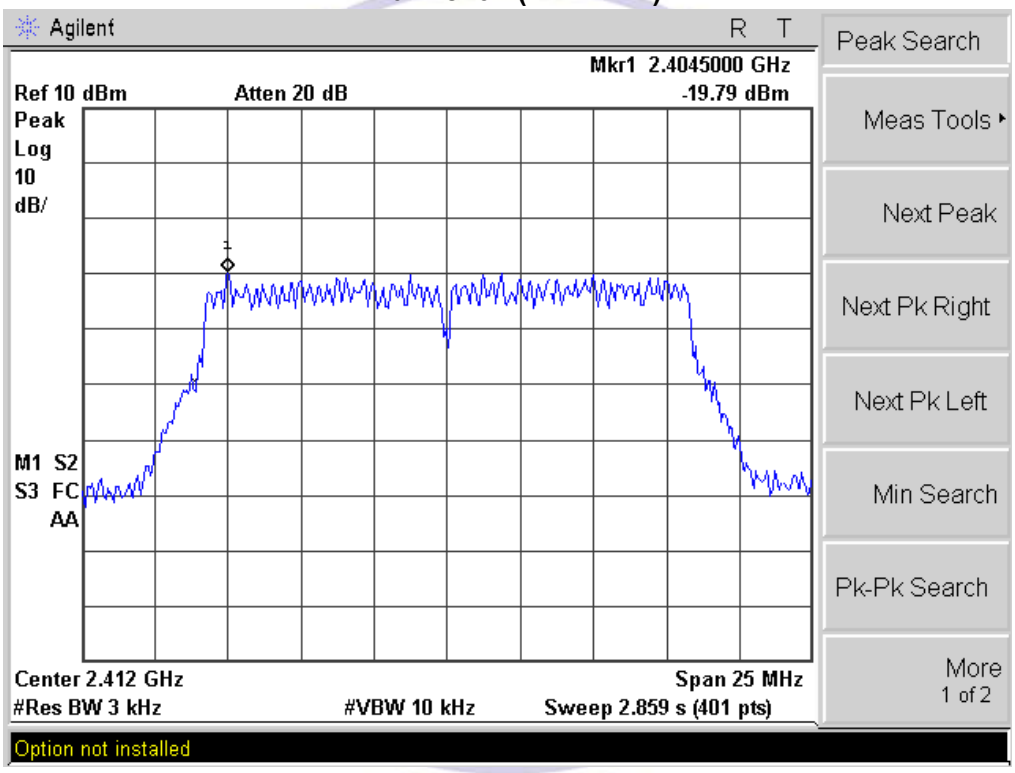
**Channel 11 (2462MHz)**



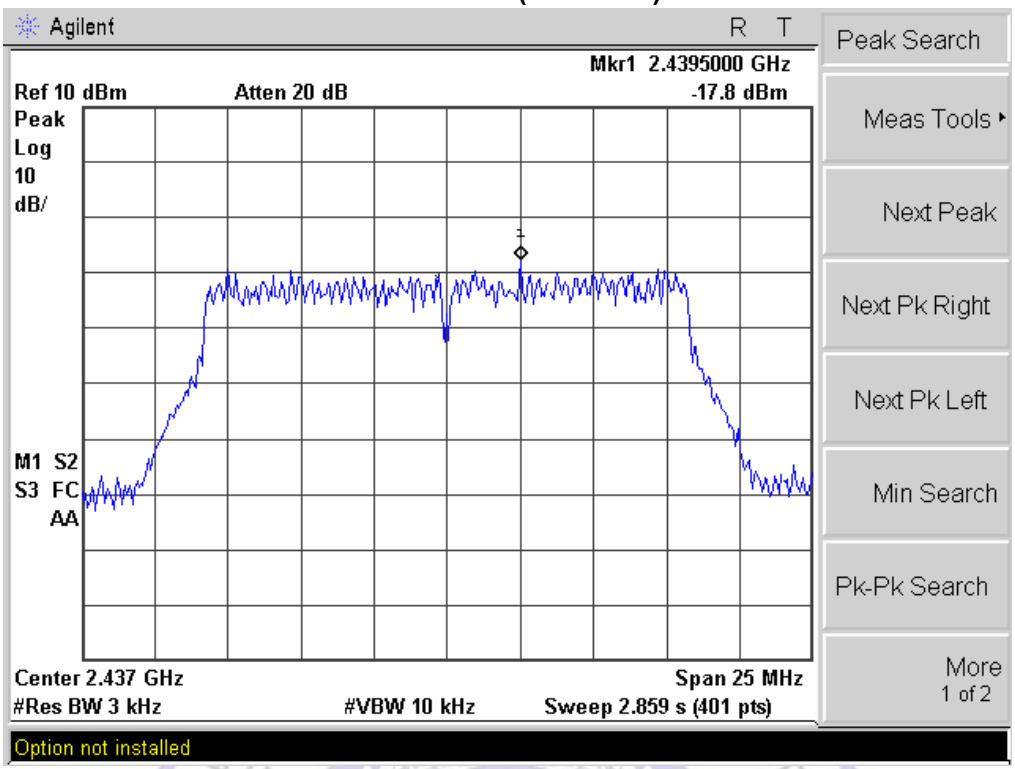
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Power Spectral Density |
| Test Mode | : | Mode 2: Transmit by 802.11g |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -19.79 | 8 | Pass |
| 06 | 2437 | -17.80 | 8 | Pass |
| 11 | 2462 | -18.17 | 8 | Pass |

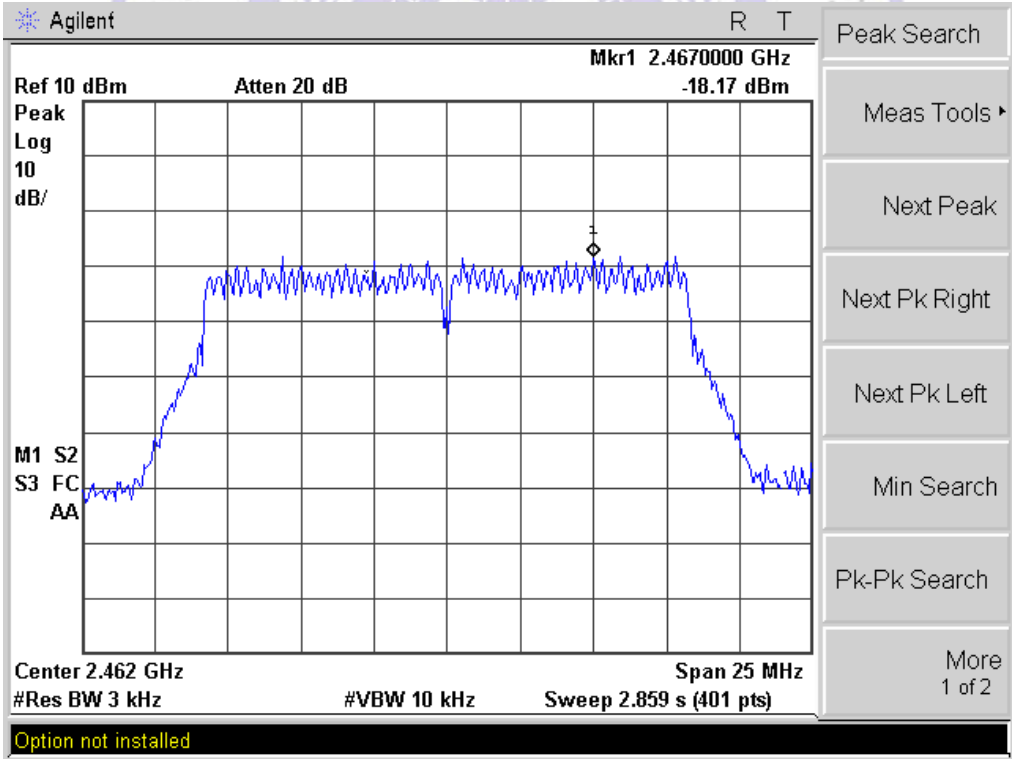
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



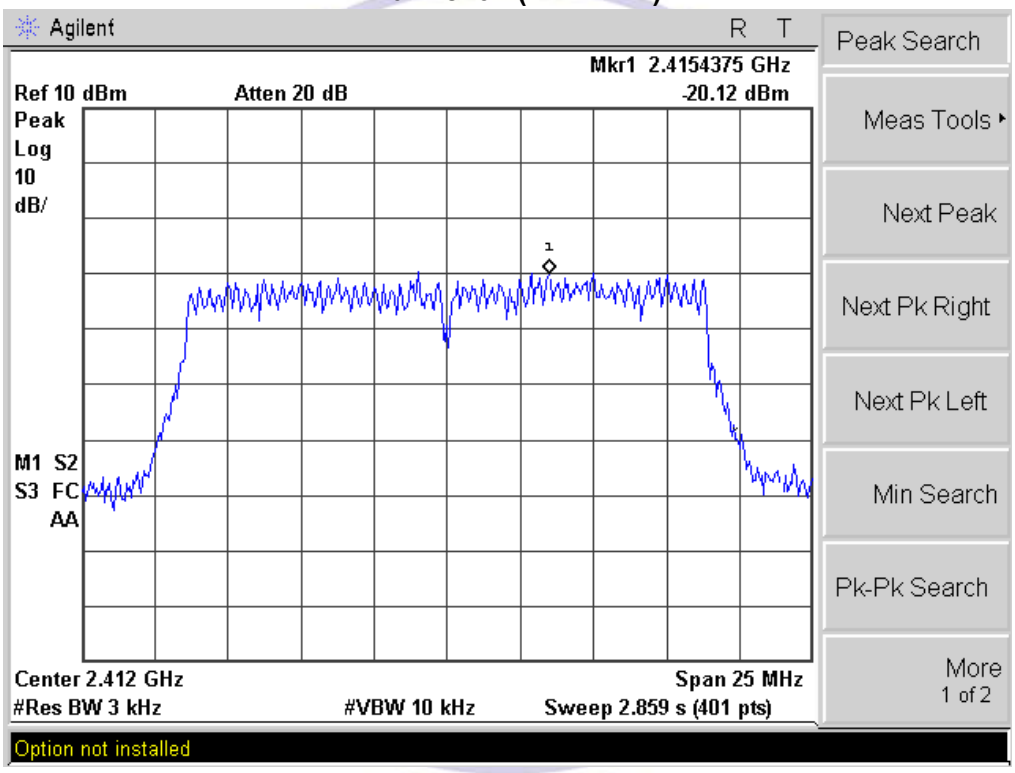

**Channel 11 (2462MHz)**



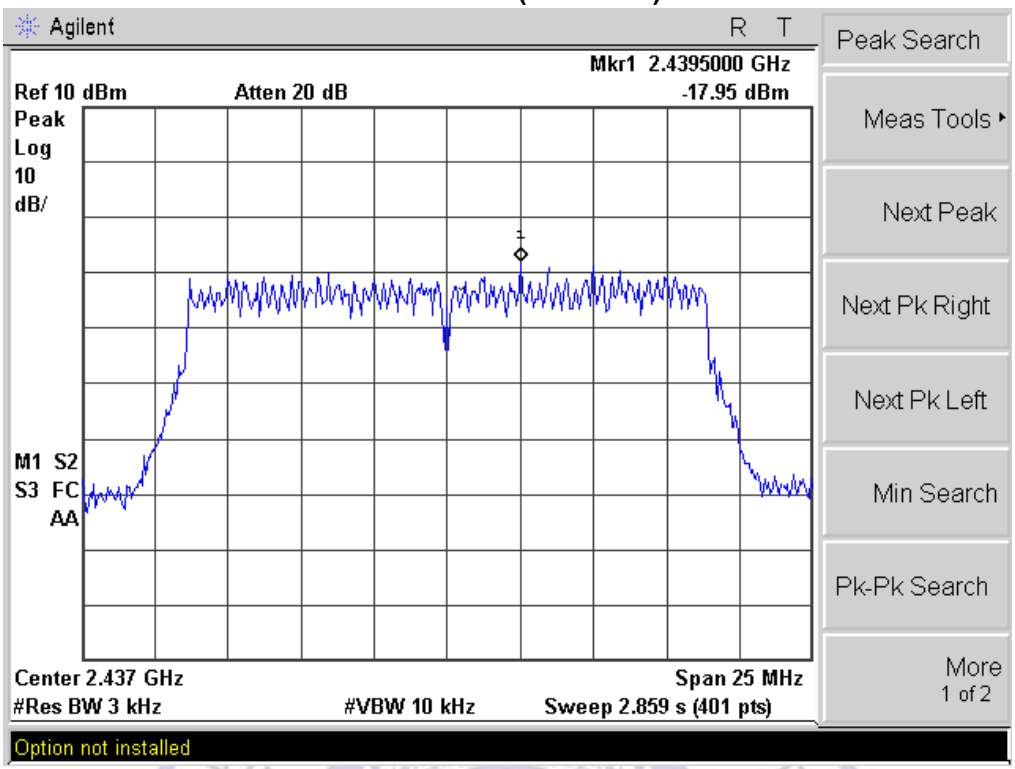
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Power Spectral Density |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -20.12 | 8 | Pass |
| 06 | 2437 | -17.95 | 8 | Pass |
| 11 | 2462 | -17.51 | 8 | Pass |

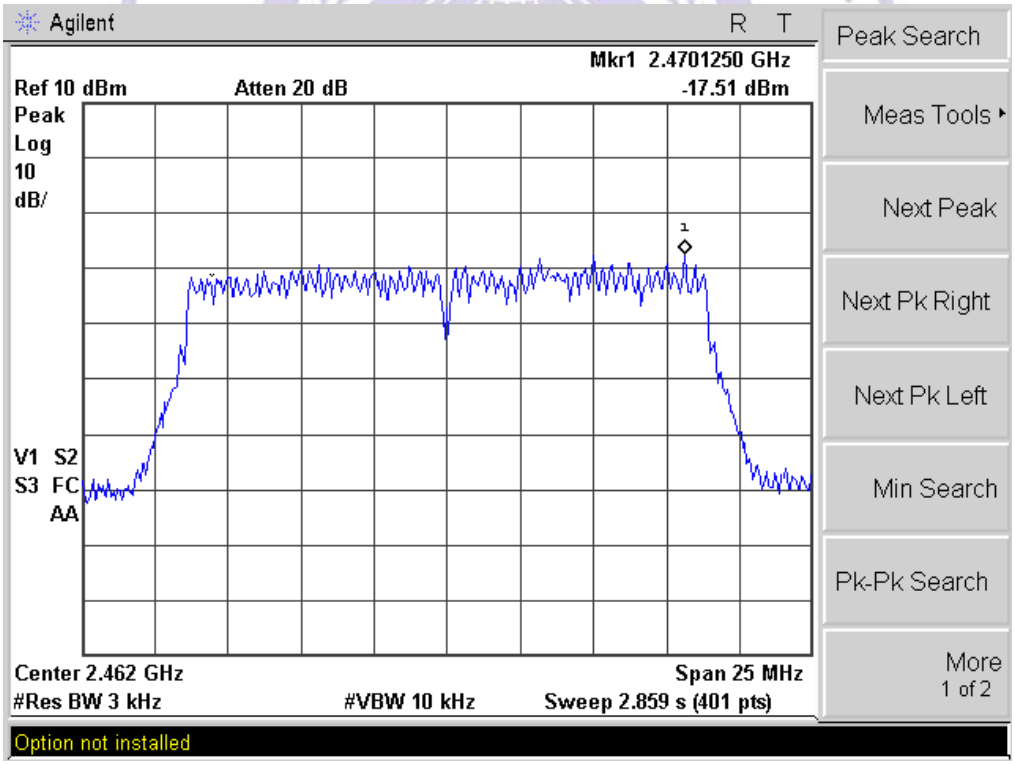
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



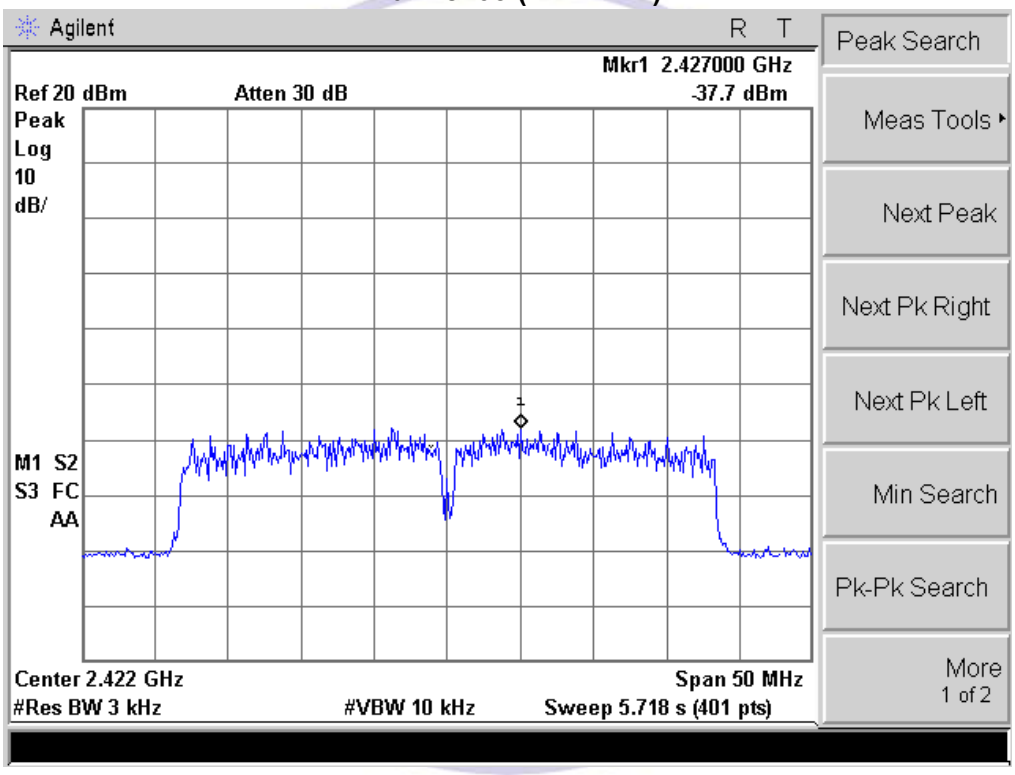

**Channel 11 (2462MHz)**



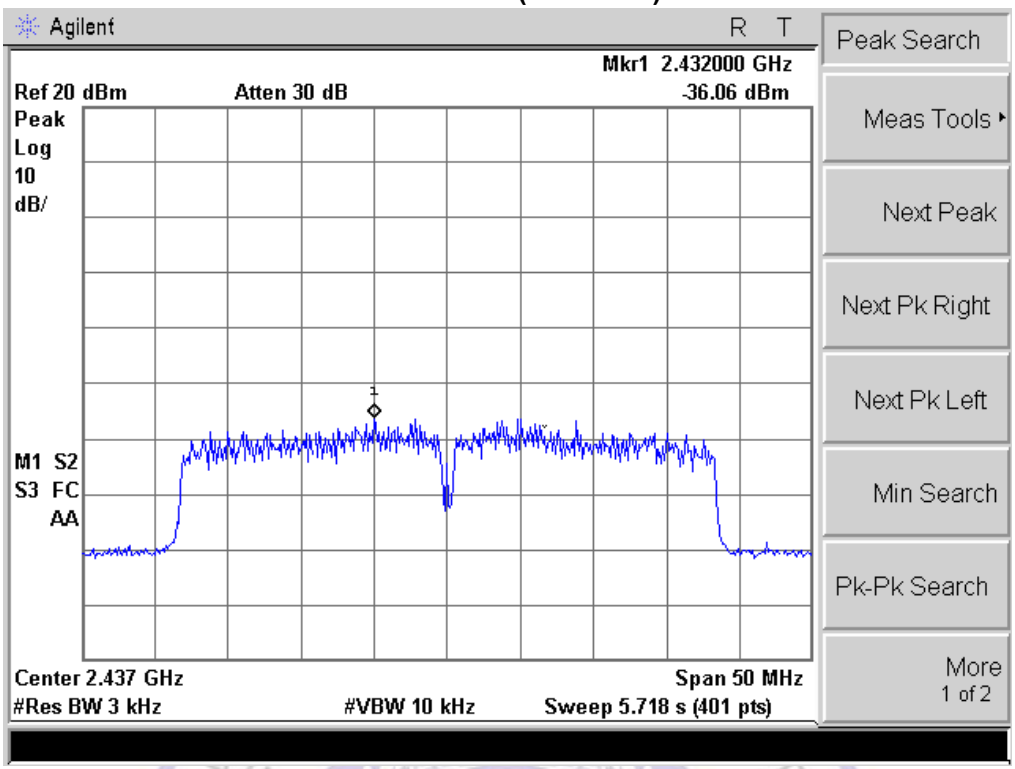
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Power Spectral Density |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|---|---|---|---|---|
| 03 | 2422 | -37.70 | 8 | Pass |
| 06 | 2437 | -36.06 | 8 | Pass |
| 09 | 2452 | -37.73 | 8 | Pass |

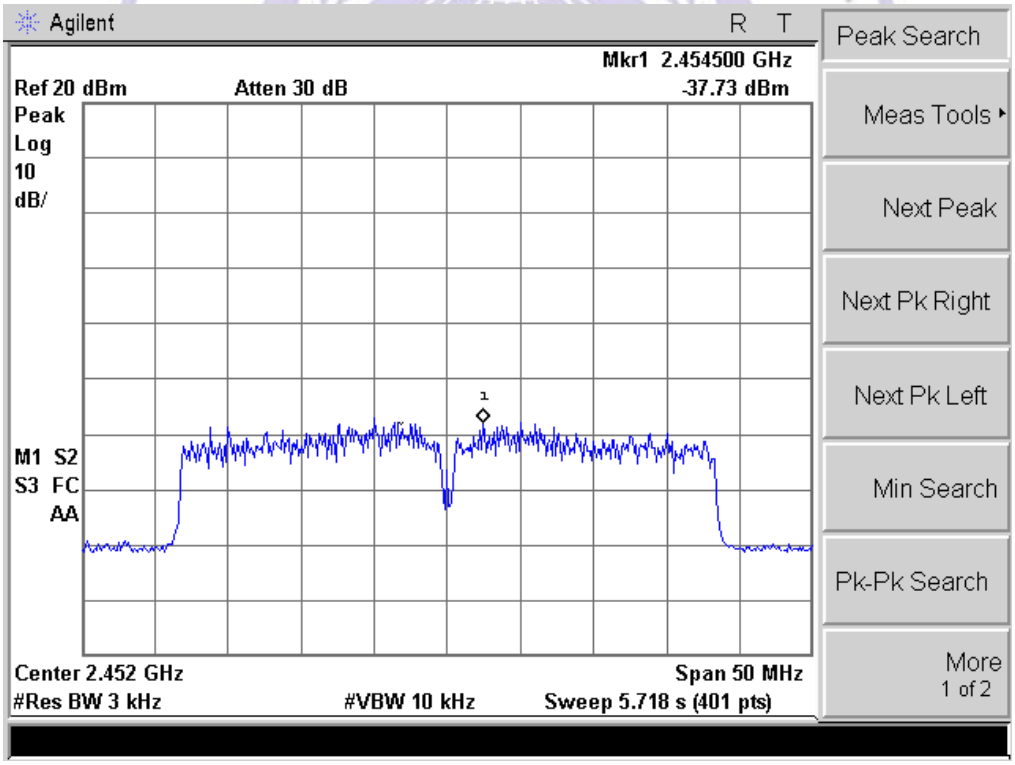
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**

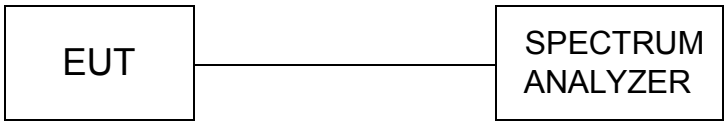



**Channel 09 (2452MHz)**



## 4.7. Spurious RF Conducted Emission

**TEST CONFIGURATION**




**TEST PROCEDURE**

The EUT was tested according to KDB558074 D01 v03r01 for compliance to FCC 47CFR 15.247 requirements.
The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2009 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBM= 300KHz to measure the peak field strength , and measure frequeny range from 30MHz to 26.5GHz.

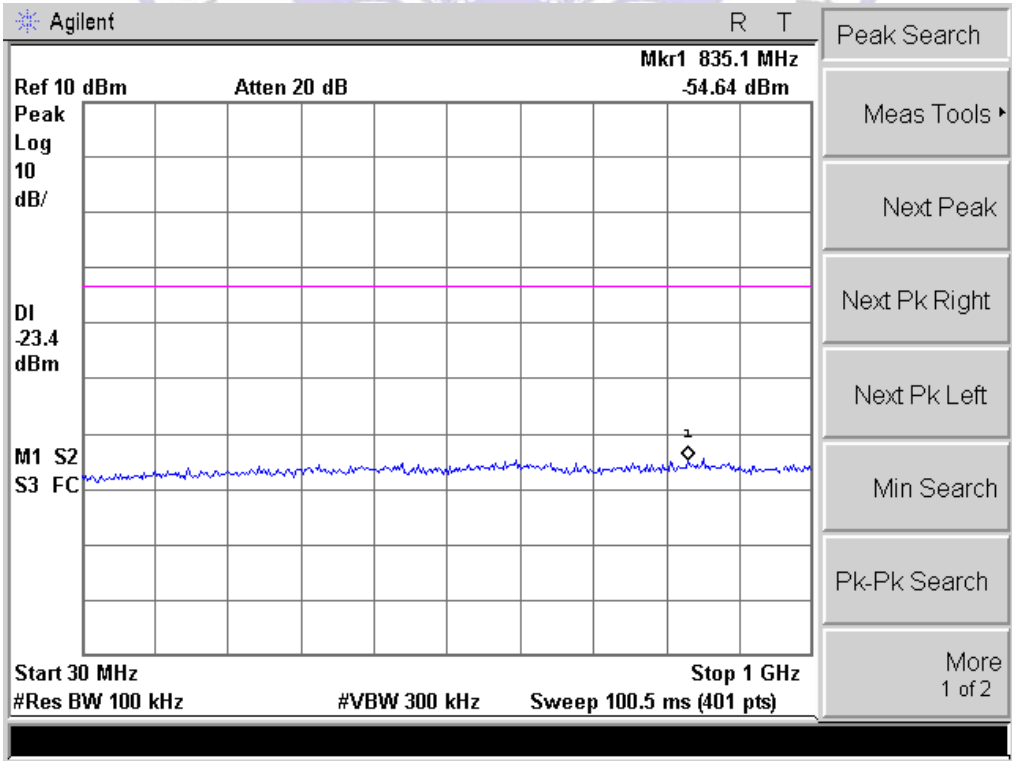
**LIMIT**

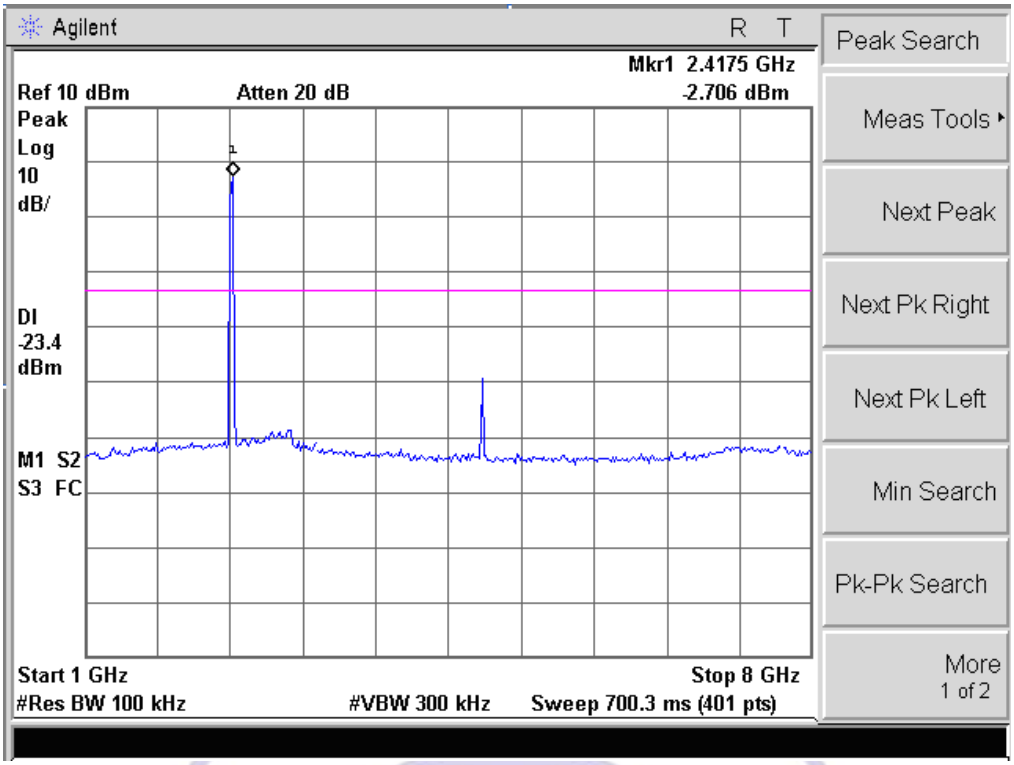
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

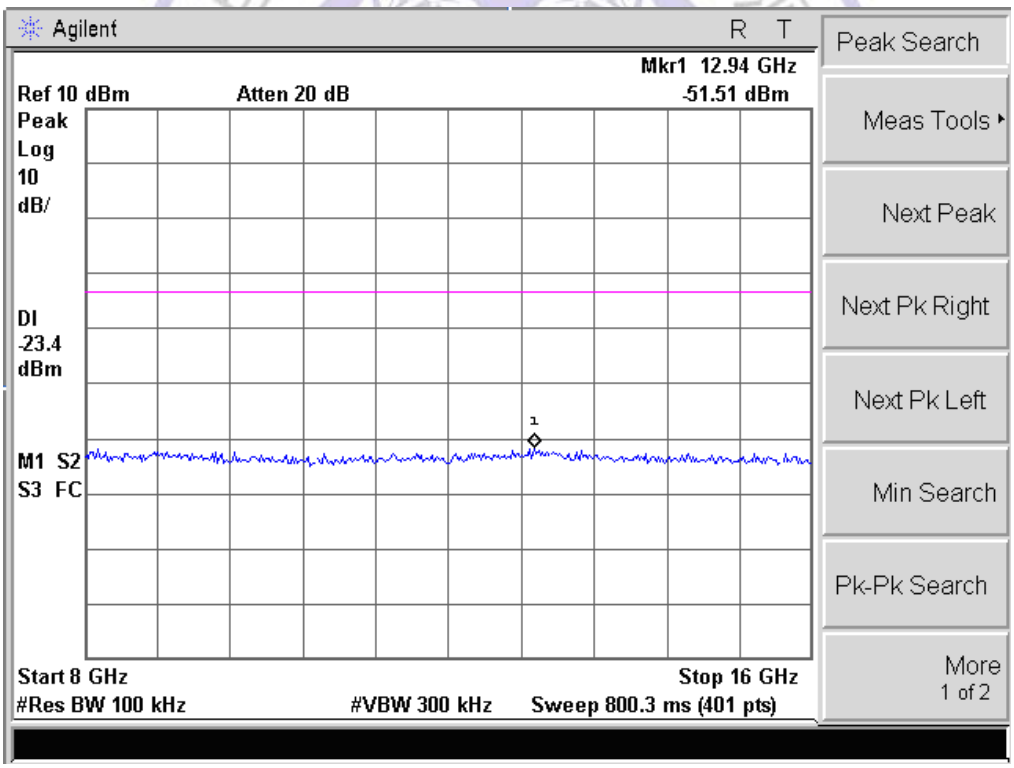
**TEST RESULTS**

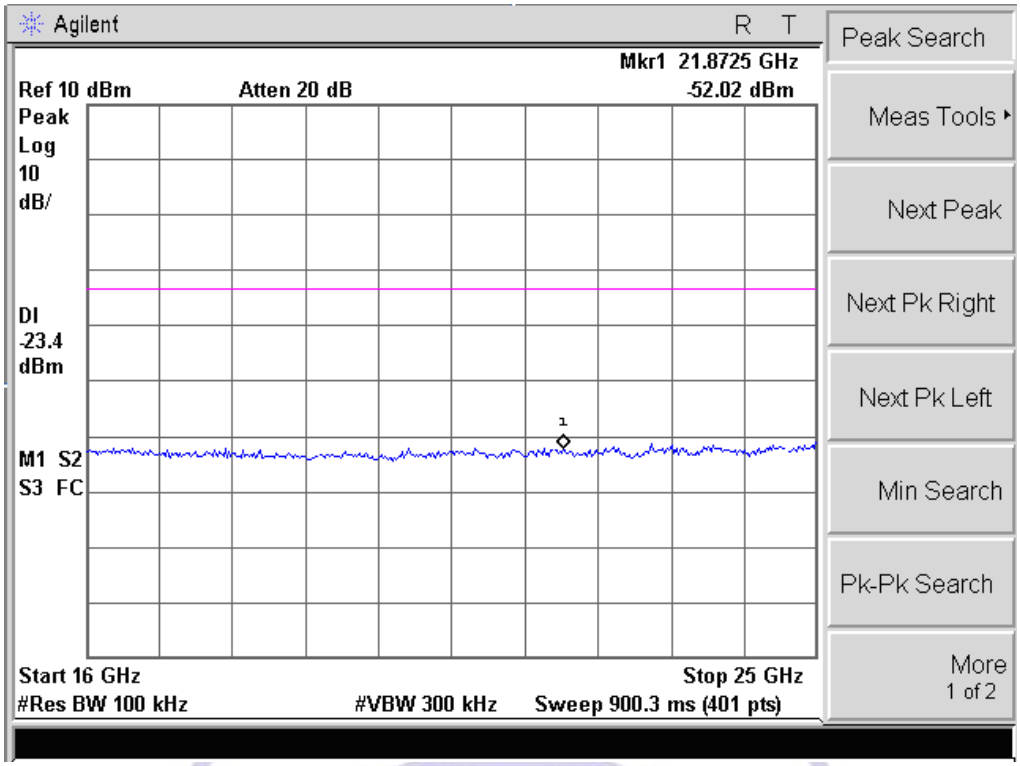
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 1: Transmit by 802.11b |

**Channel 01 (2412MHz)**

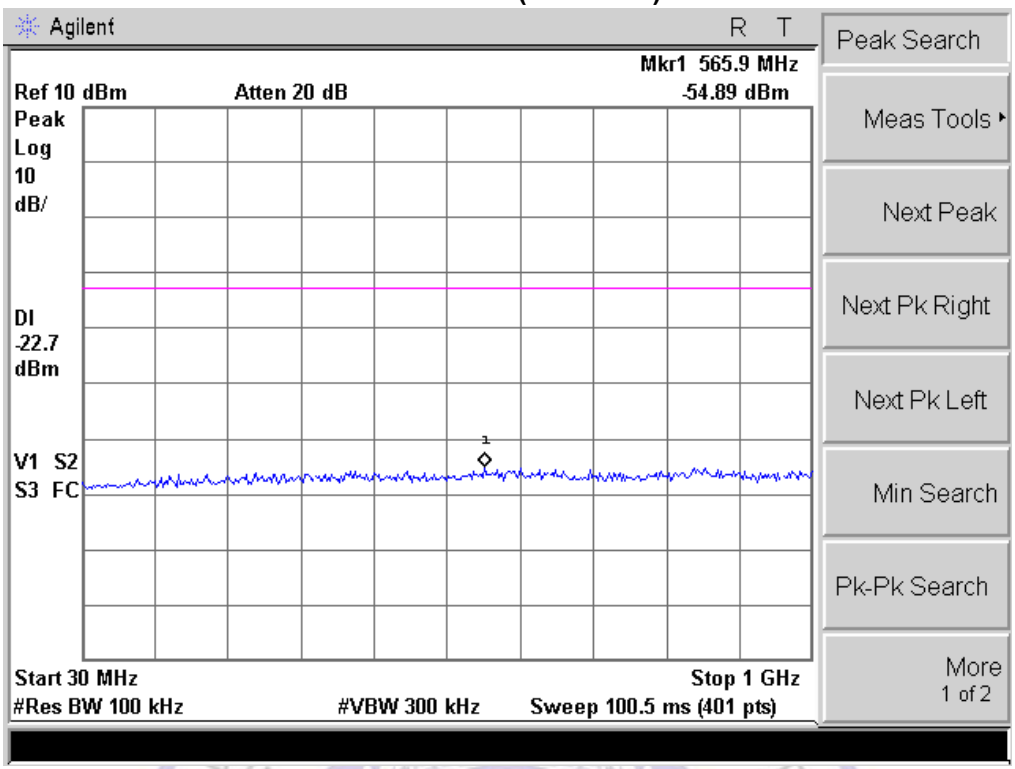


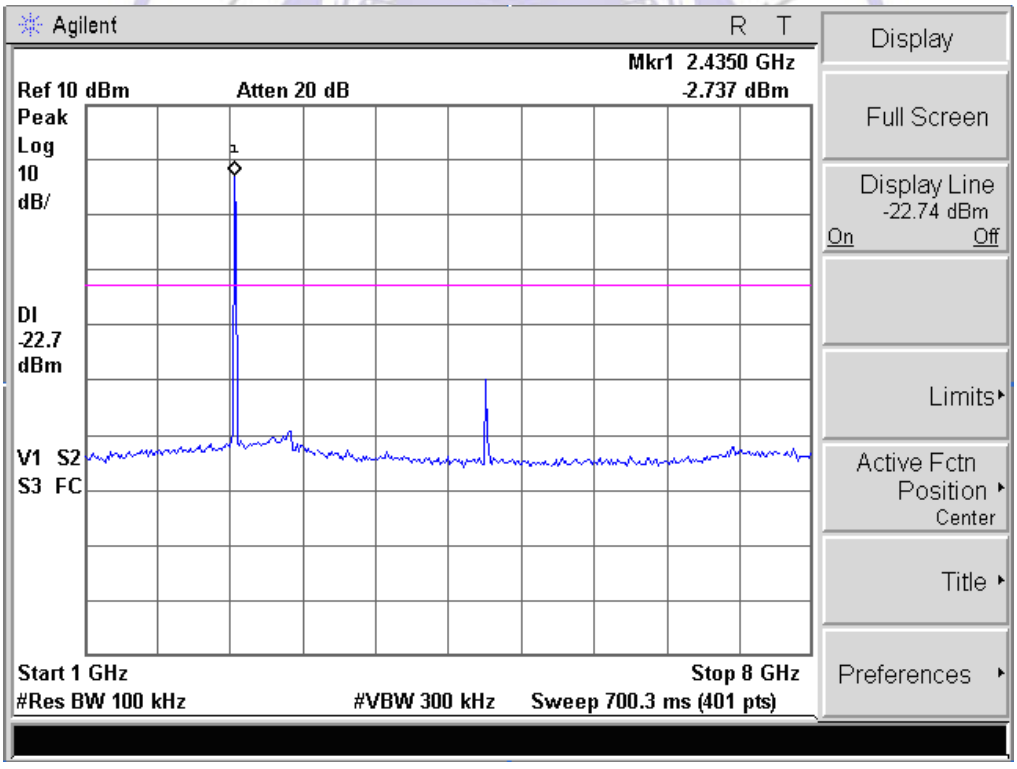

Agilent
R T
Mkr1 2.4175 GHz
Ref 10 dBm
Atten 20 dB
-2.706 dBm
Peak
Log
10
dB/
Dl
-23.4
dBm
M1 S2
S3 FC
Start 1 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8 GHz
Sweep 700.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

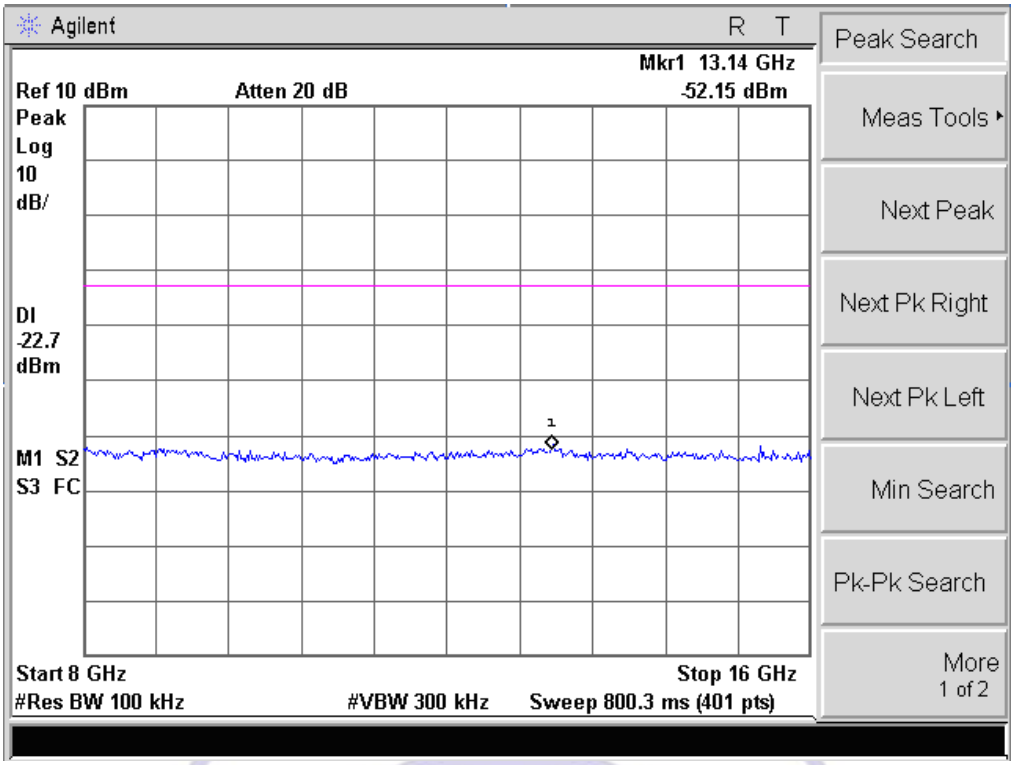

Agilent
R T
Mkr1 12.94 GHz
Ref 10 dBm
Atten 20 dB
-51.51 dBm
Peak
Log
10
dB/
Dl
-23.4
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

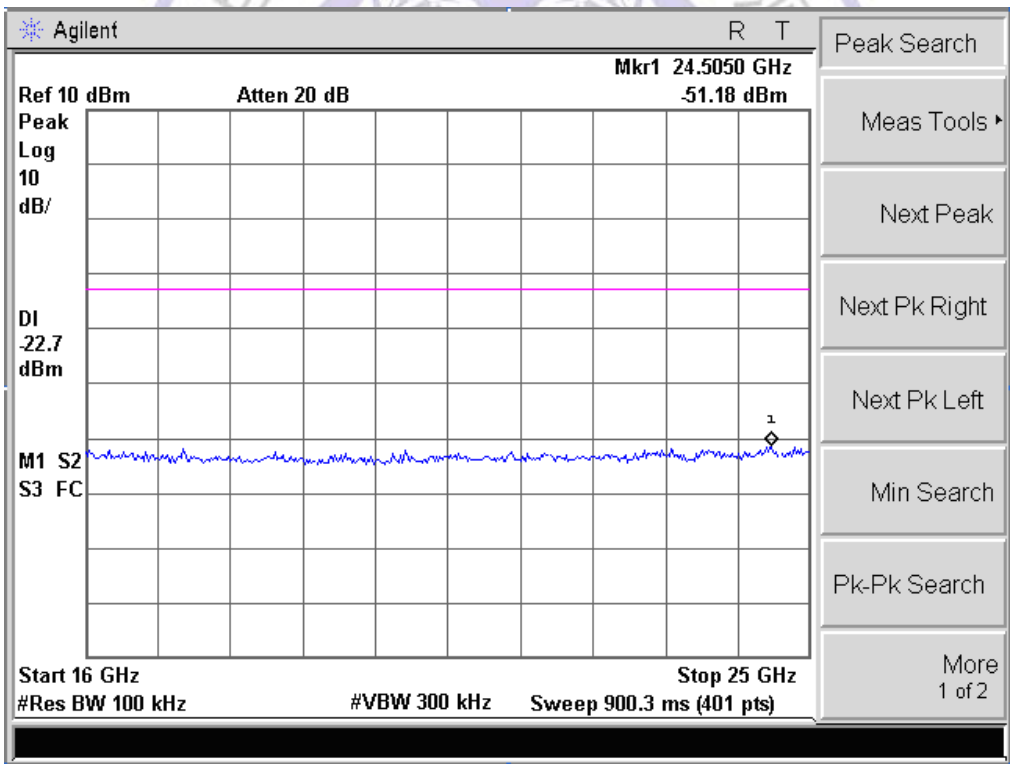


**Channel 06 (2437MHz)**

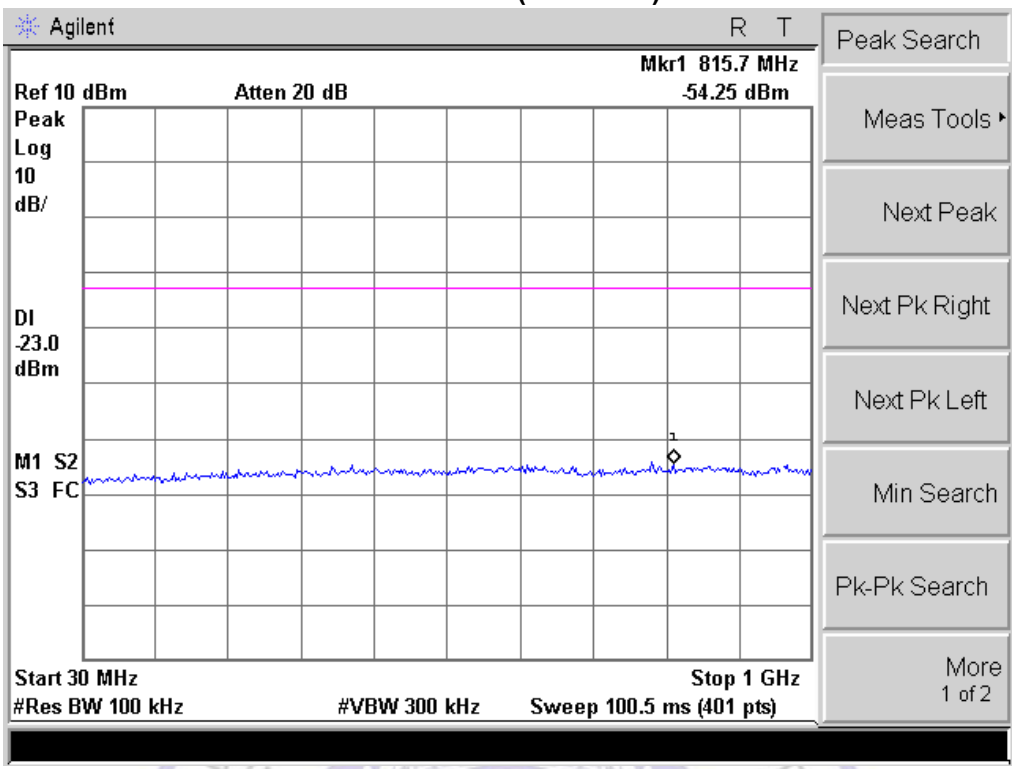


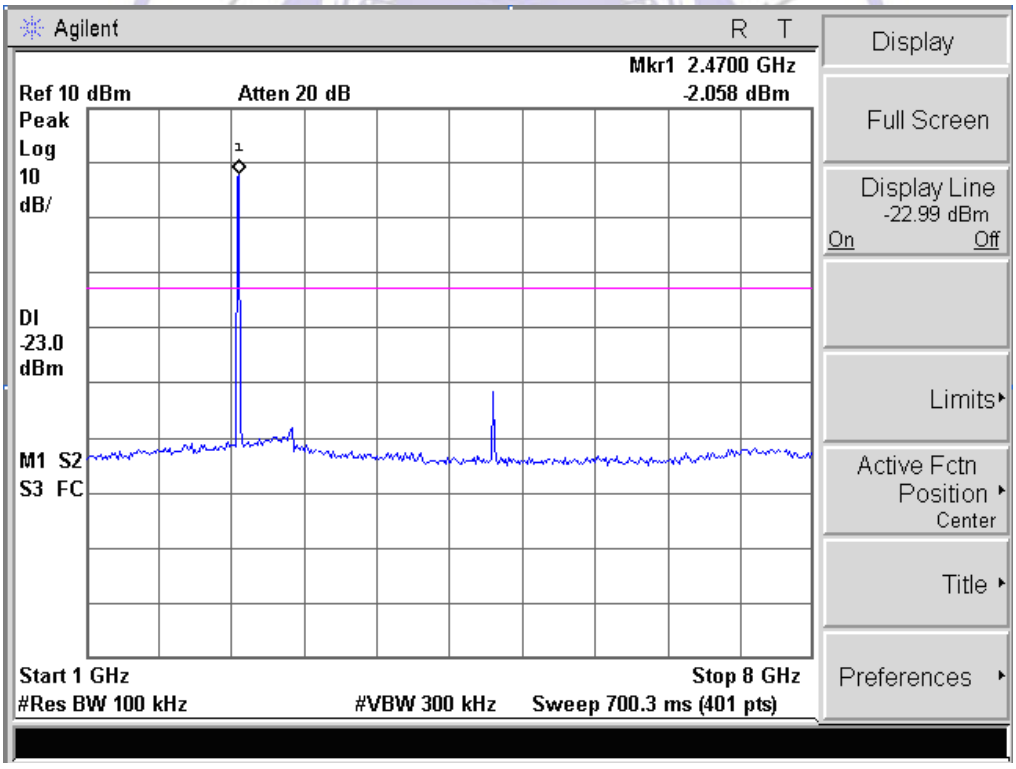



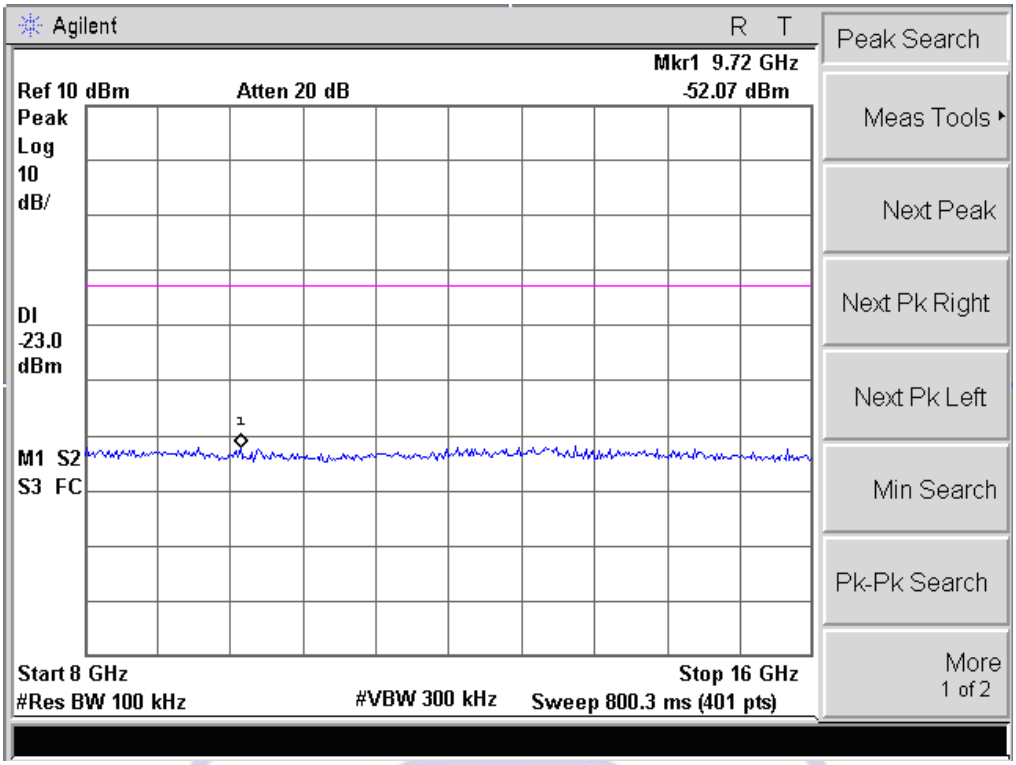

Agilent
R T
Mkr1 13.14 GHz
Ref 10 dBm
Atten 20 dB
-52.15 dBm
Peak
Log
10
dB/
Dl
-22.7
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

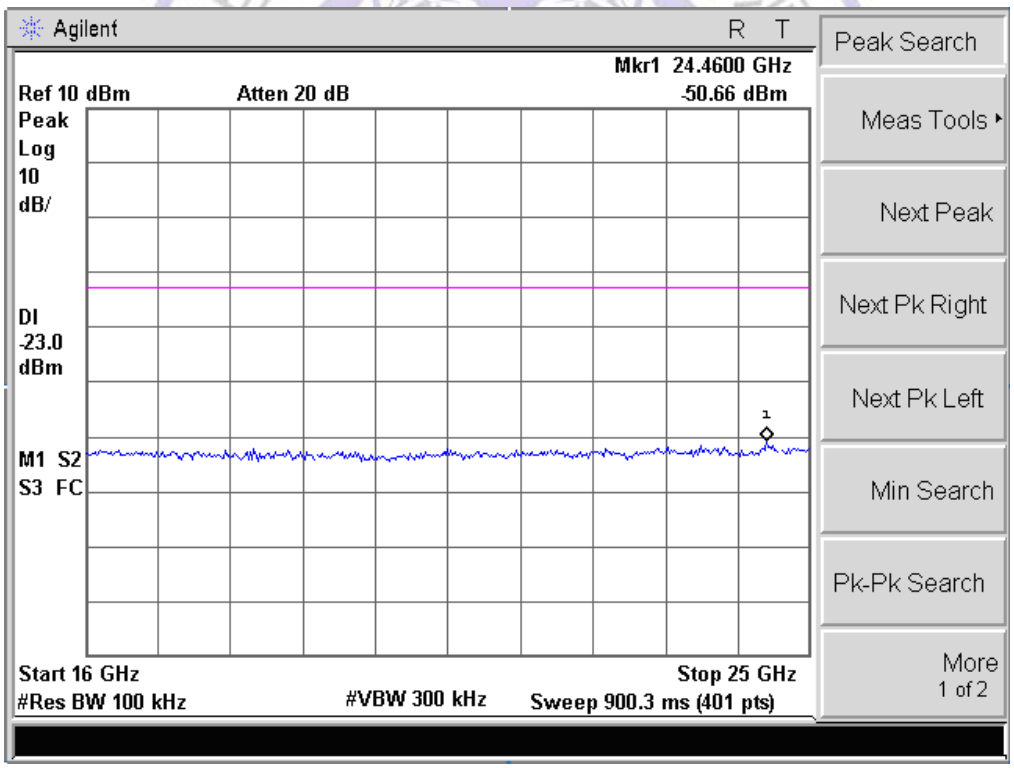

Agilent
R T
Mkr1 24.5050 GHz
Ref 10 dBm
Atten 20 dB
-51.18 dBm
Peak
Log
10
dB/
Dl
-22.7
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 11 (2462MHz)**



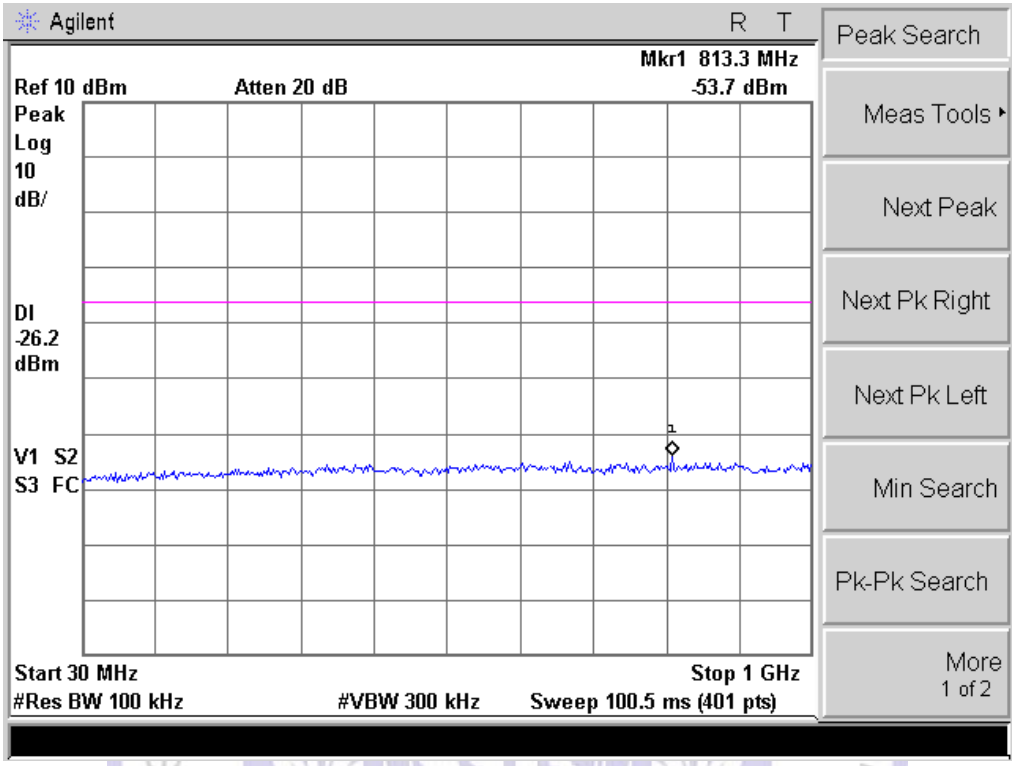



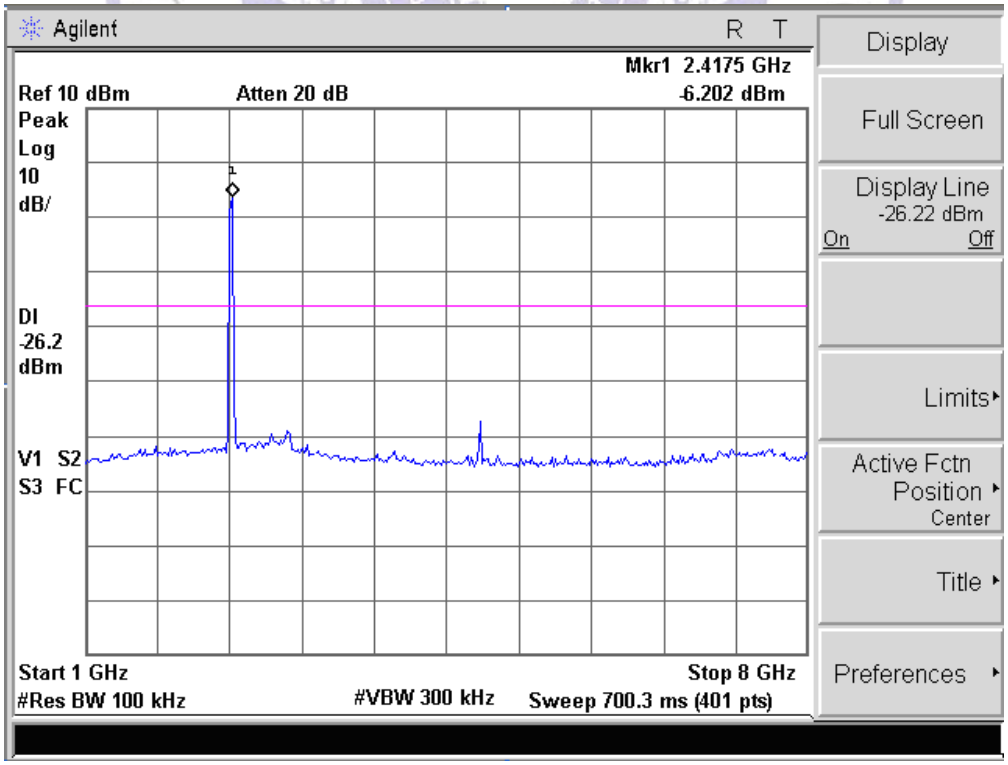

Agilent
R T
Mkr1 9.72 GHz
Ref 10 dBm
Atten 20 dB
-52.07 dBm
Peak
Log
10
dB/
Dl
-23.0
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

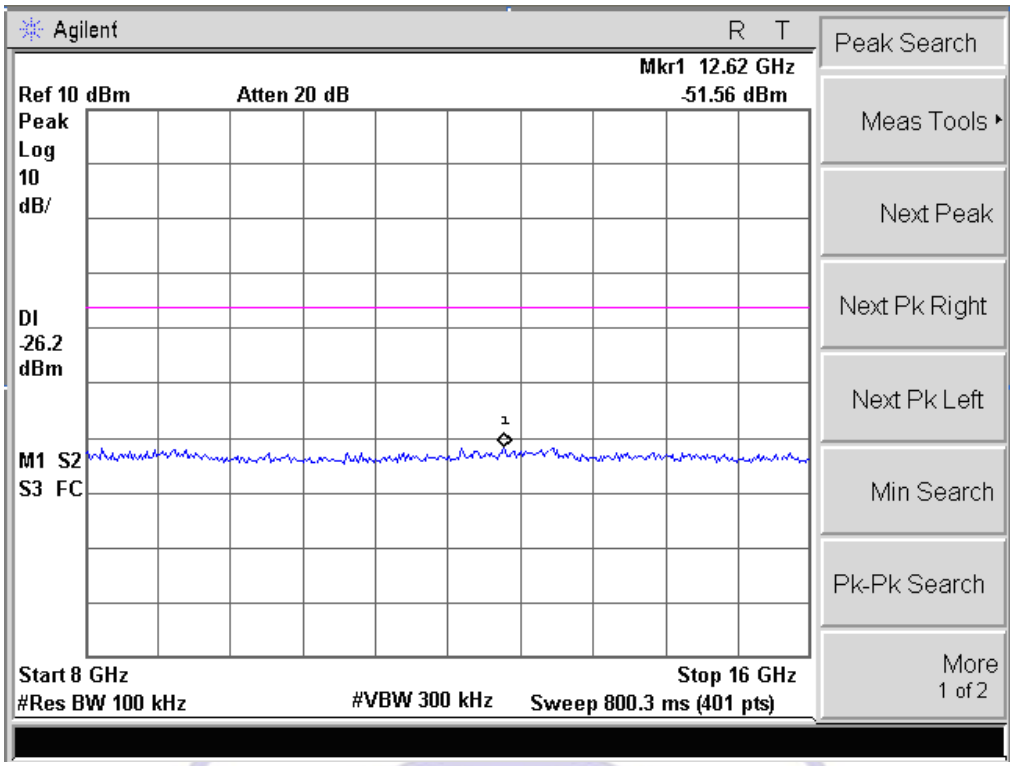

Agilent
R T
Mkr1 24.4600 GHz
Ref 10 dBm
Atten 20 dB
-50.66 dBm
Peak
Log
10
dB/
Dl
-23.0
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

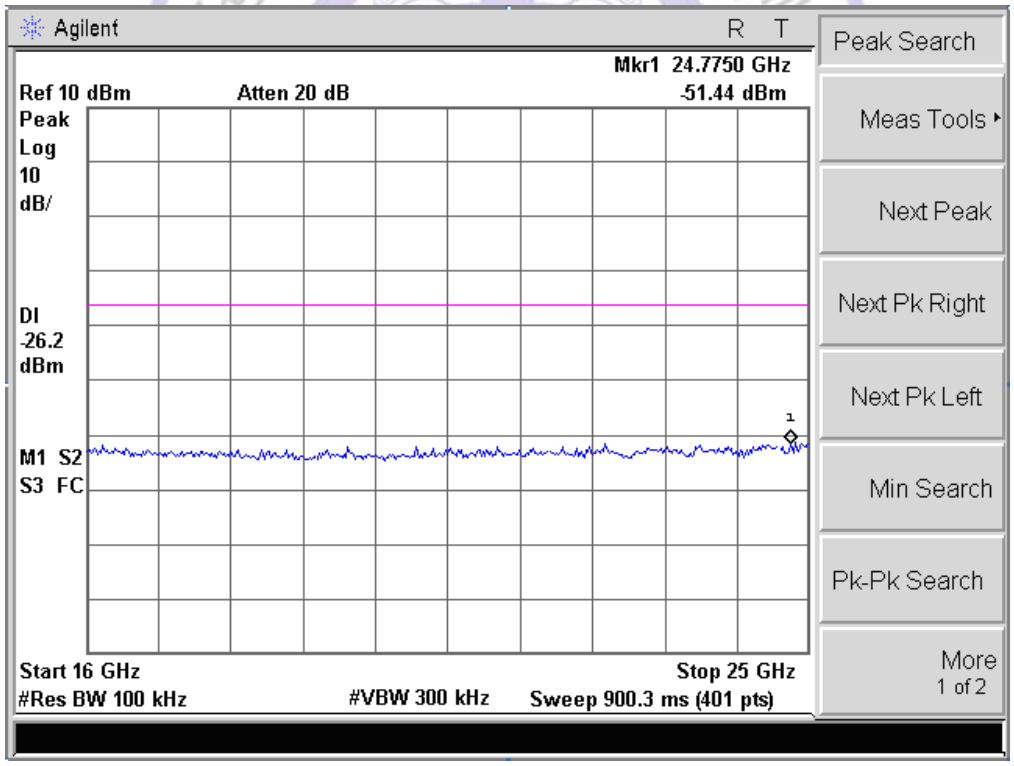
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 2: Transmit by 802.11g |

**Channel 01 (2412MHz)**

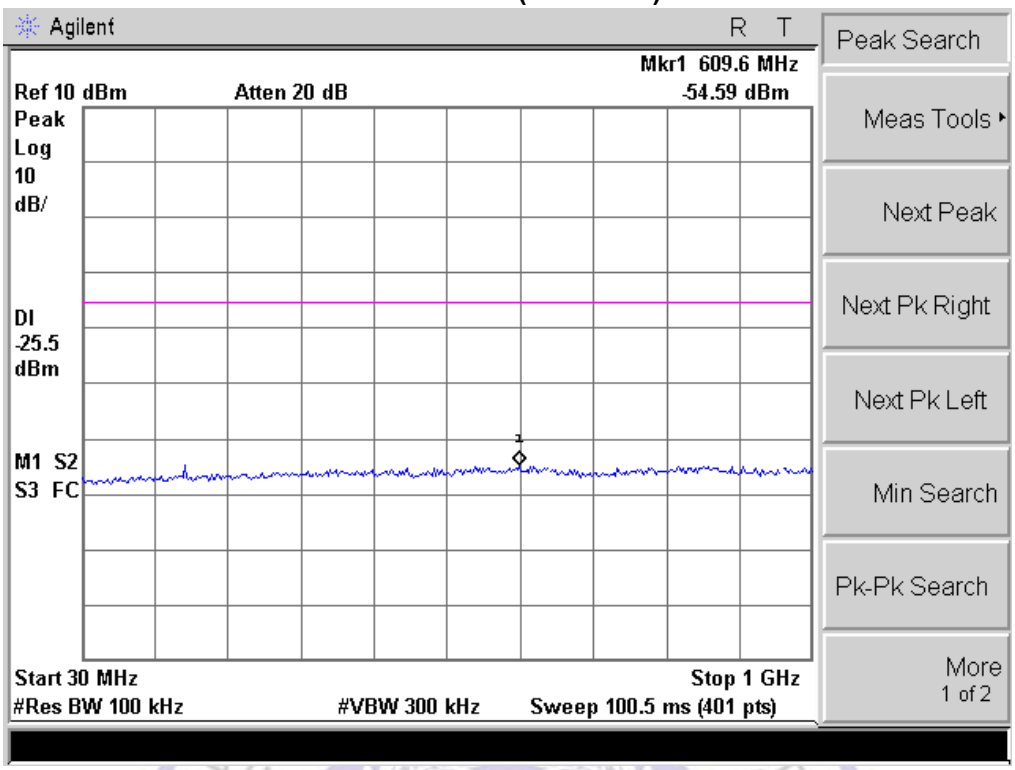


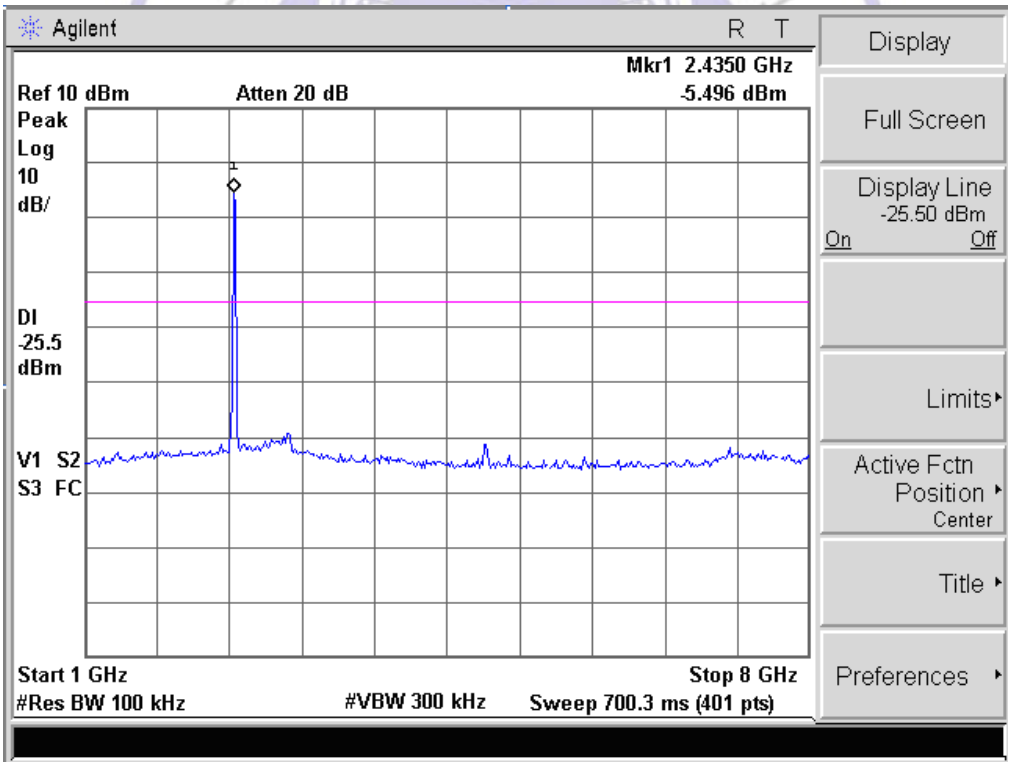



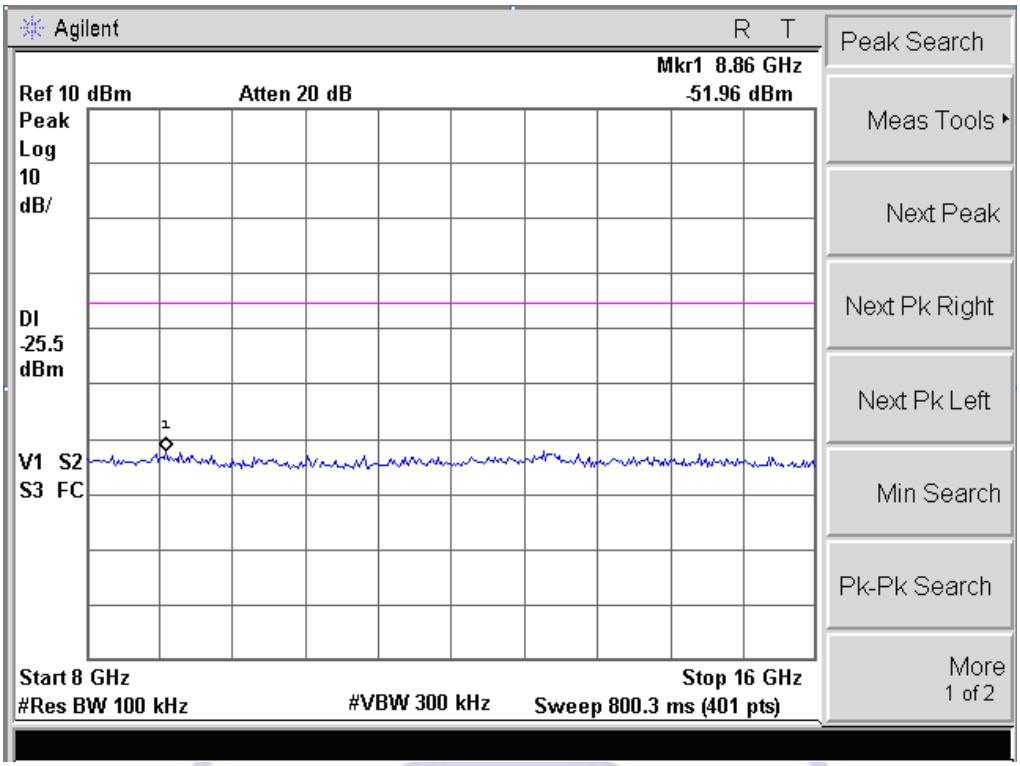

Agilent
R T
Mkr1 12.62 GHz
Ref 10 dBm
Atten 20 dB
-51.56 dBm
Peak
Log
10
dB/
Dl
-26.2
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

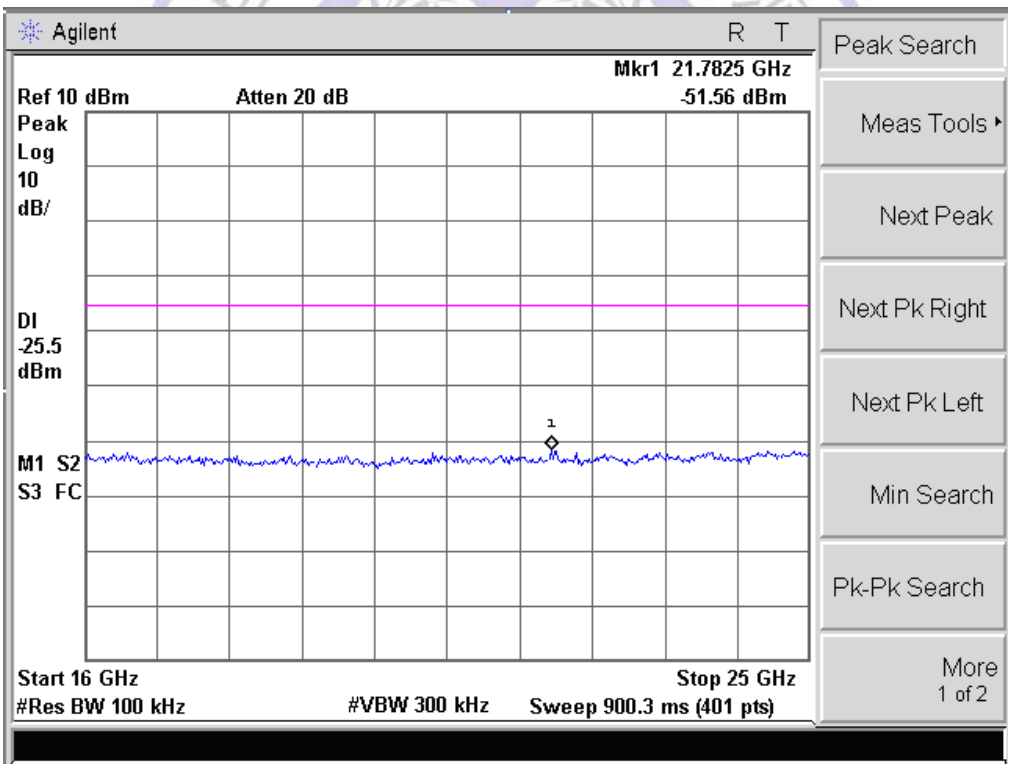

Agilent
R T
Mkr1 24.7750 GHz
Ref 10 dBm
Atten 20 dB
-51.44 dBm
Peak
Log
10
dB/
Dl
-26.2
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 06 (2437MHz)**

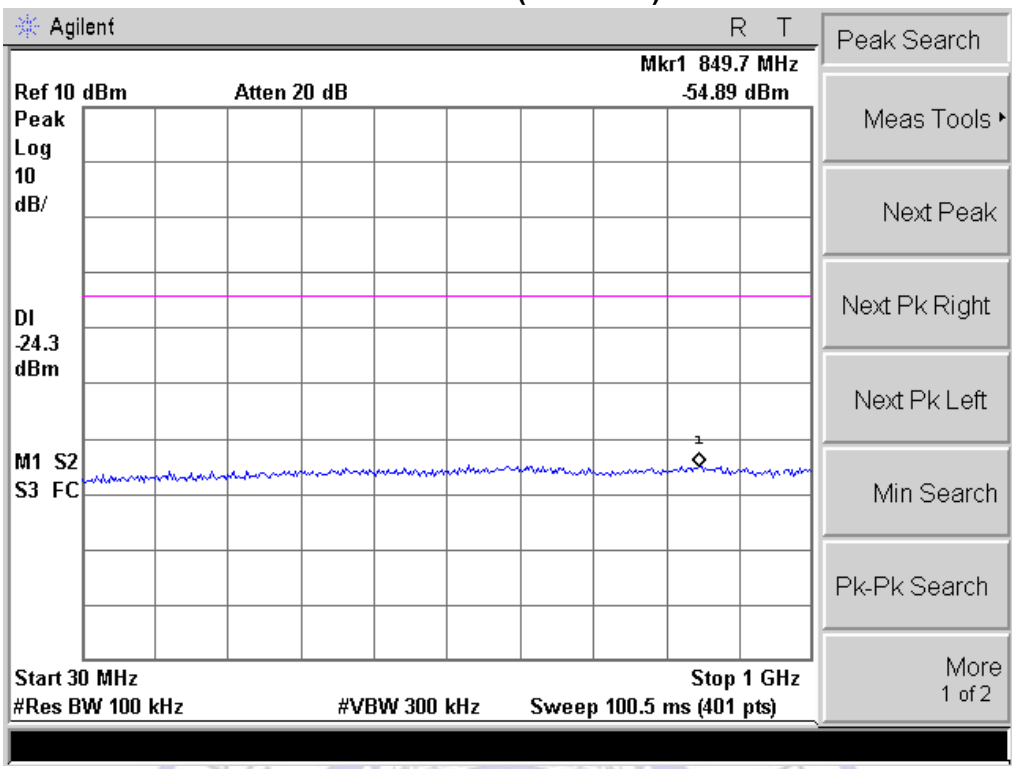


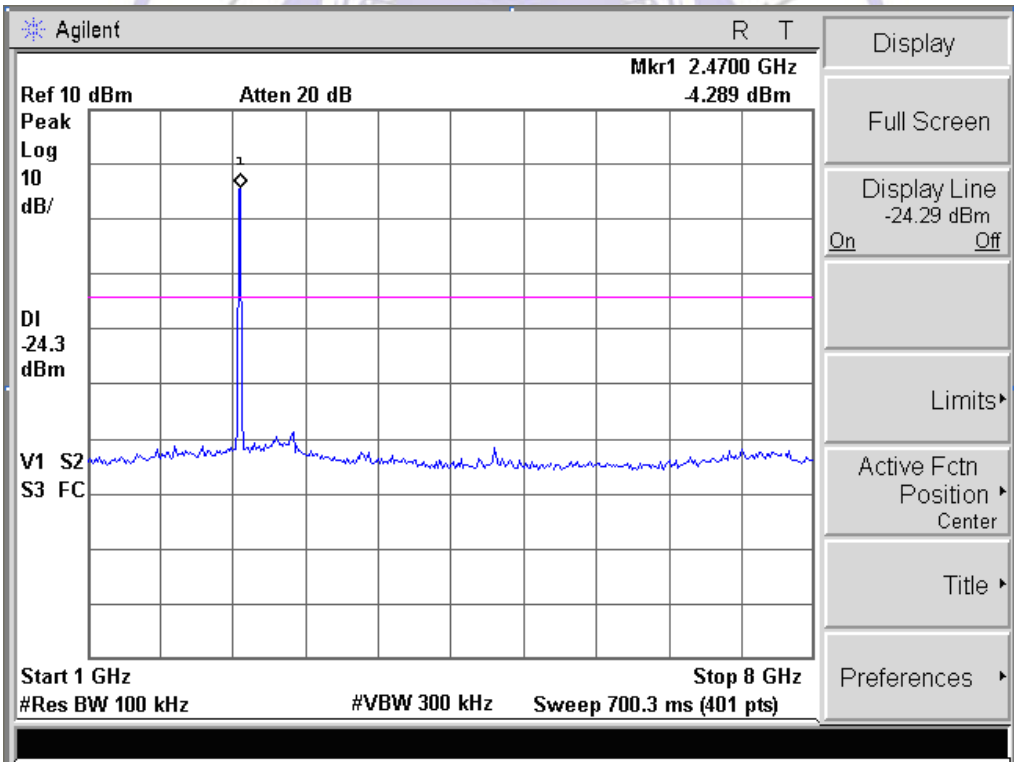



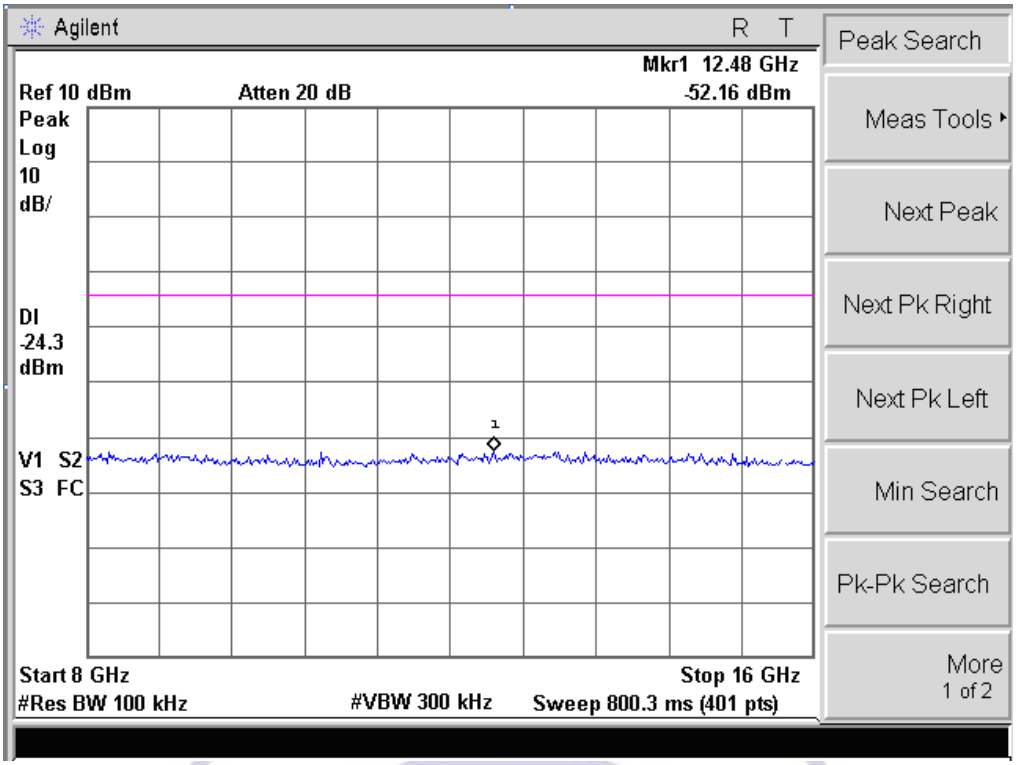

Agilent
R T
Mkr1 8.86 GHz
Ref 10 dBm
Atten 20 dB
-51.96 dBm
Peak
Log
10
dB/
DI
-25.5
dBm
V1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

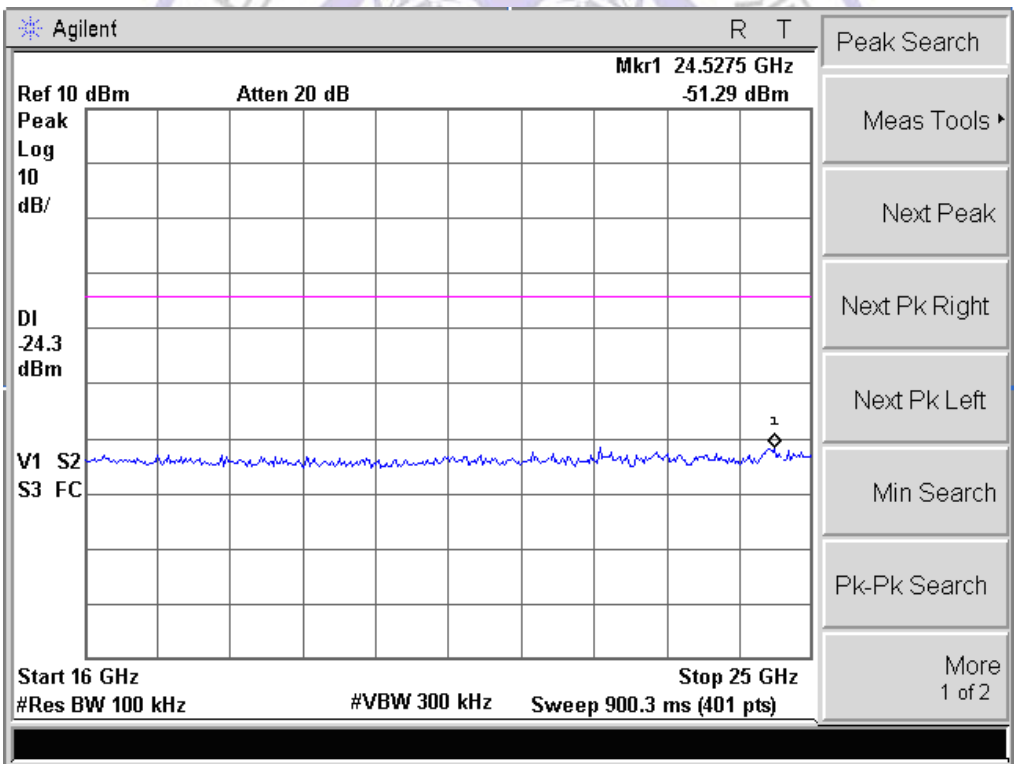

Agilent
R T
Mkr1 21.7825 GHz
Ref 10 dBm
Atten 20 dB
-51.56 dBm
Peak
Log
10
dB/
DI
-25.5
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 11 (2462MHz)**



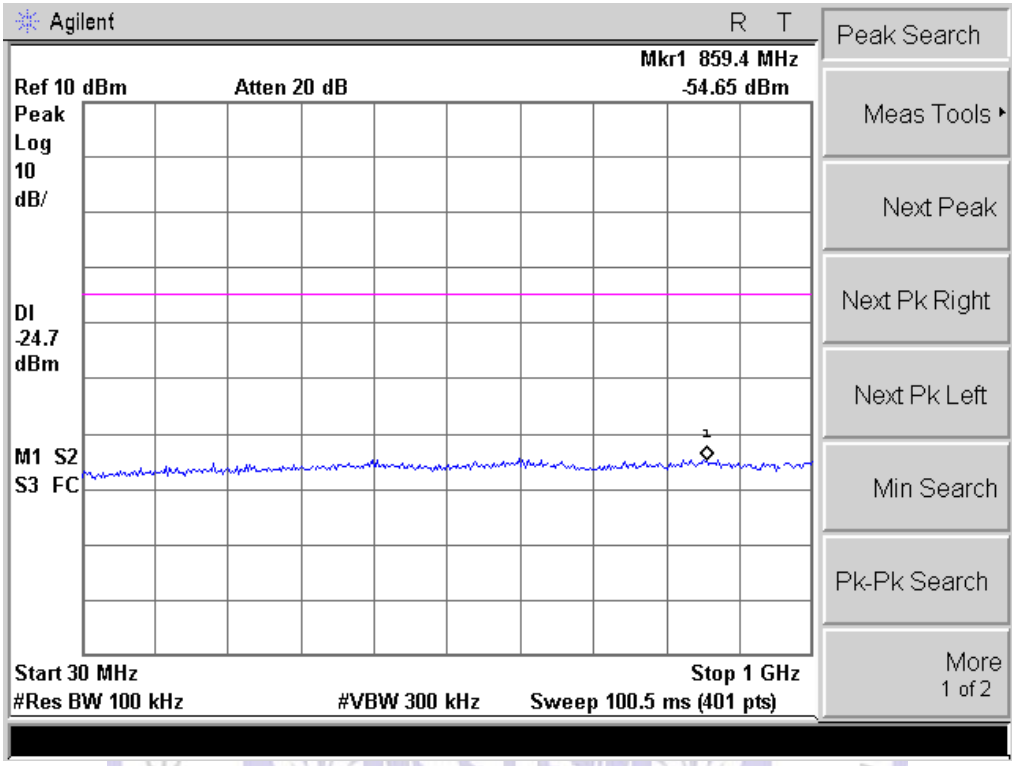



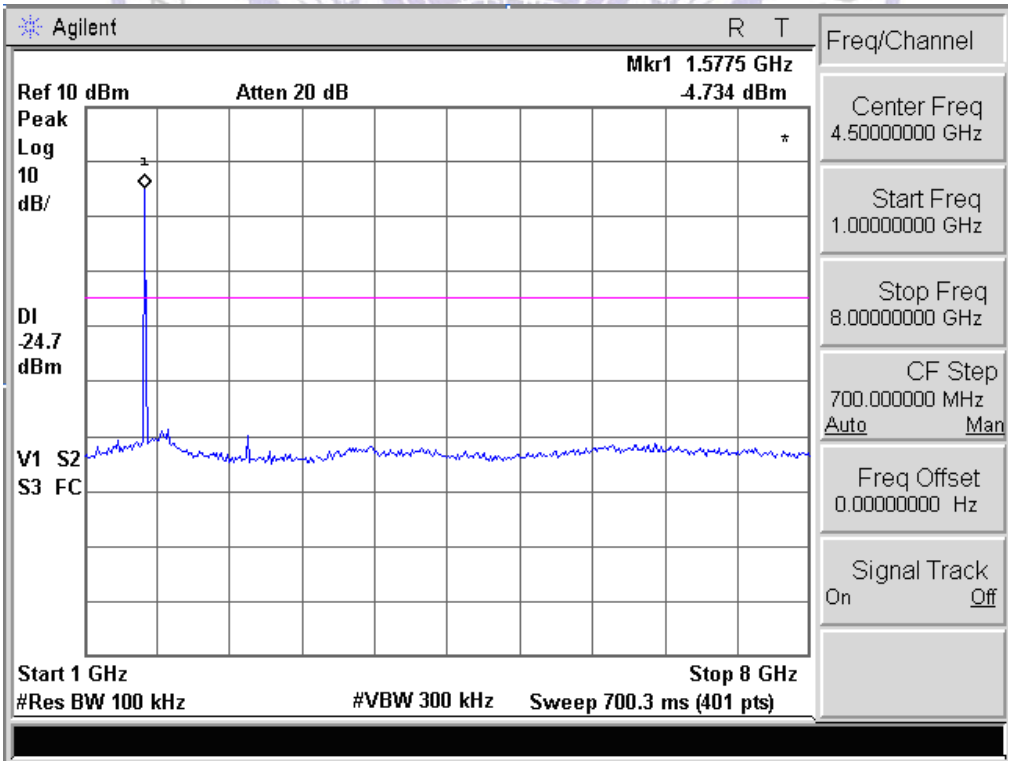

Agilent
R T
Mkr1 12.48 GHz
Ref 10 dBm
Atten 20 dB
-52.16 dBm
Peak
Log
10
dB/
DI
-24.3
dBm
V1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

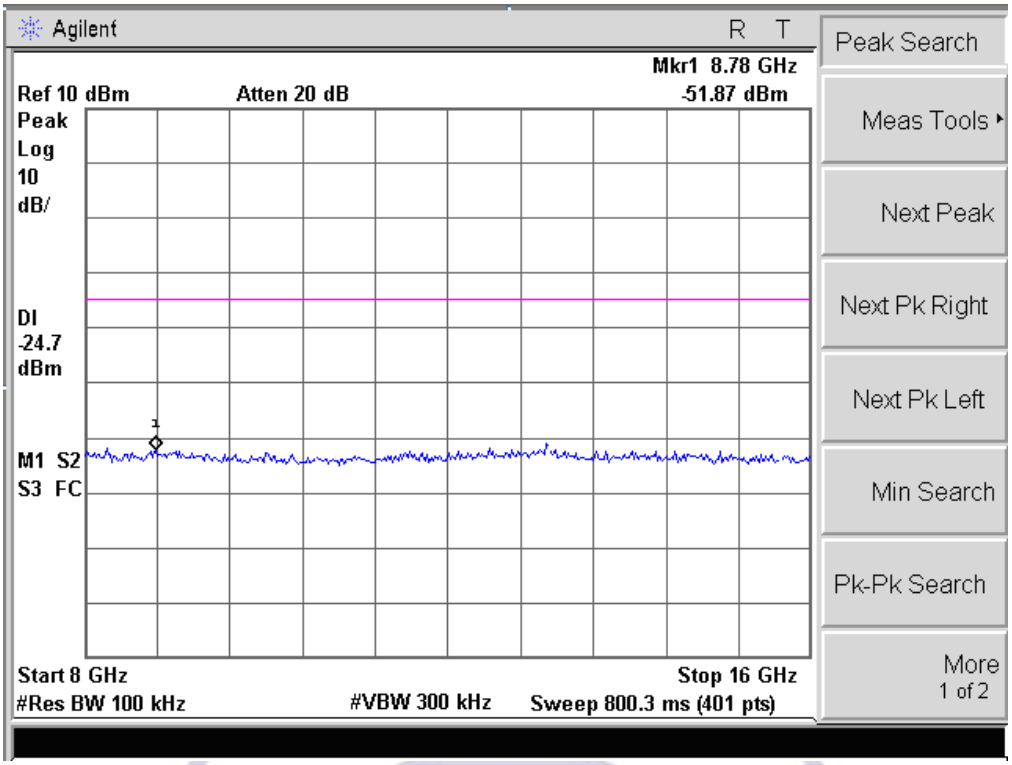

Agilent
R T
Mkr1 24.5275 GHz
Ref 10 dBm
Atten 20 dB
-51.29 dBm
Peak
Log
10
dB/
DI
-24.3
dBm
V1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

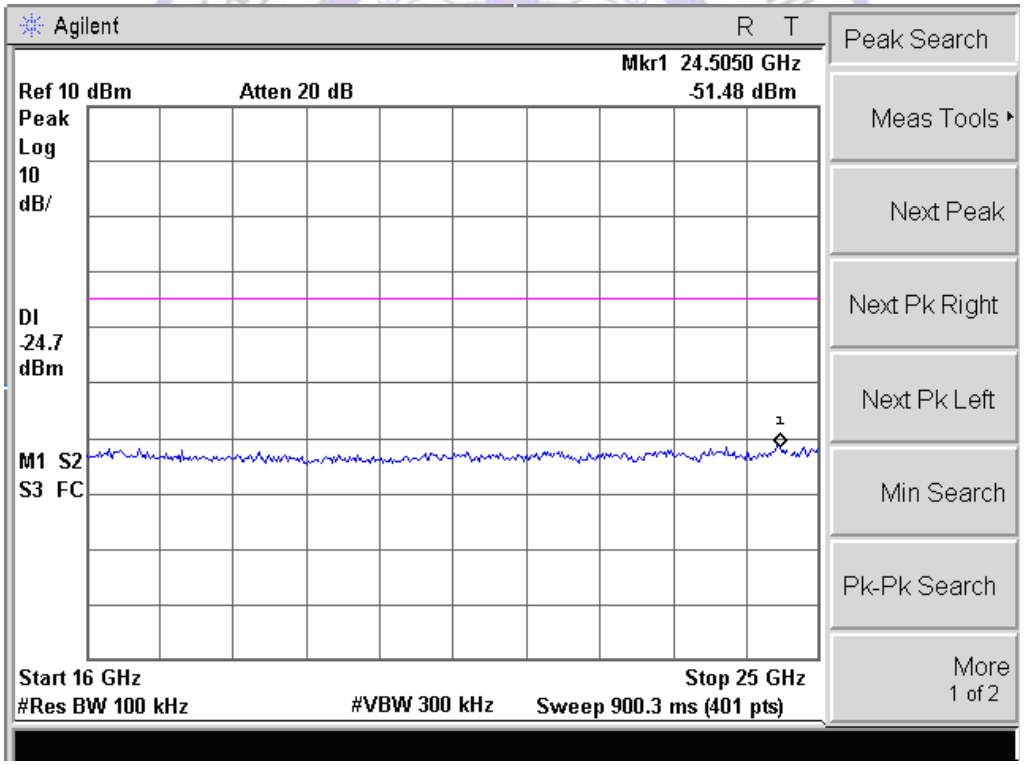
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) |

**Channel 01 (2412MHz)**

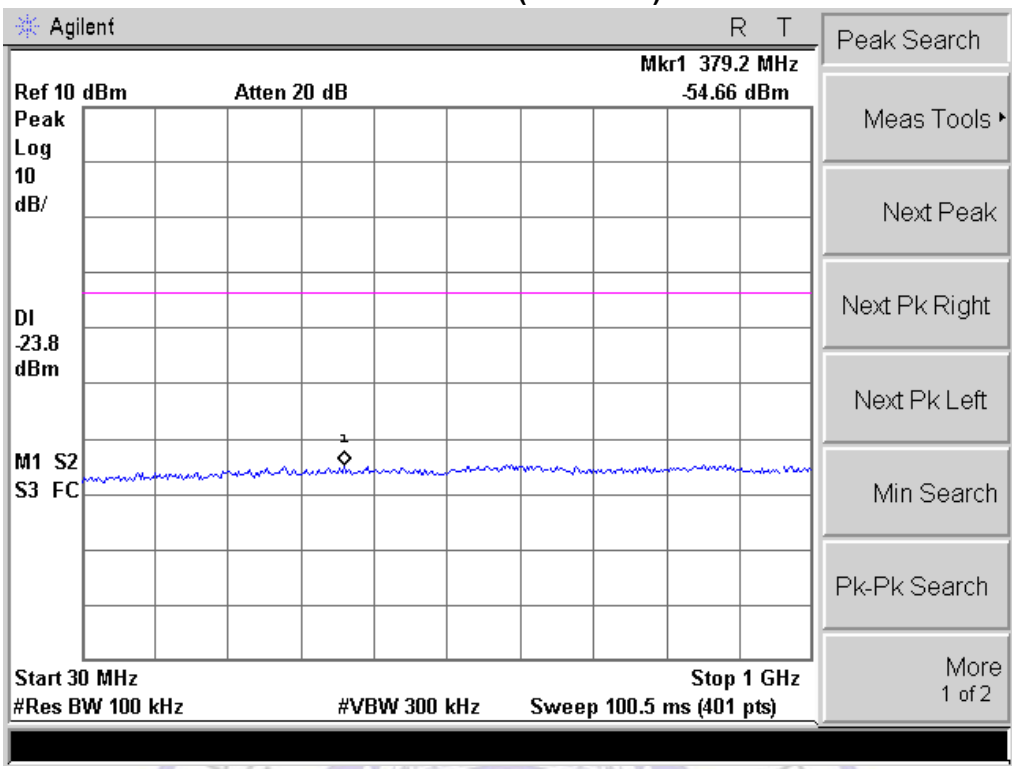


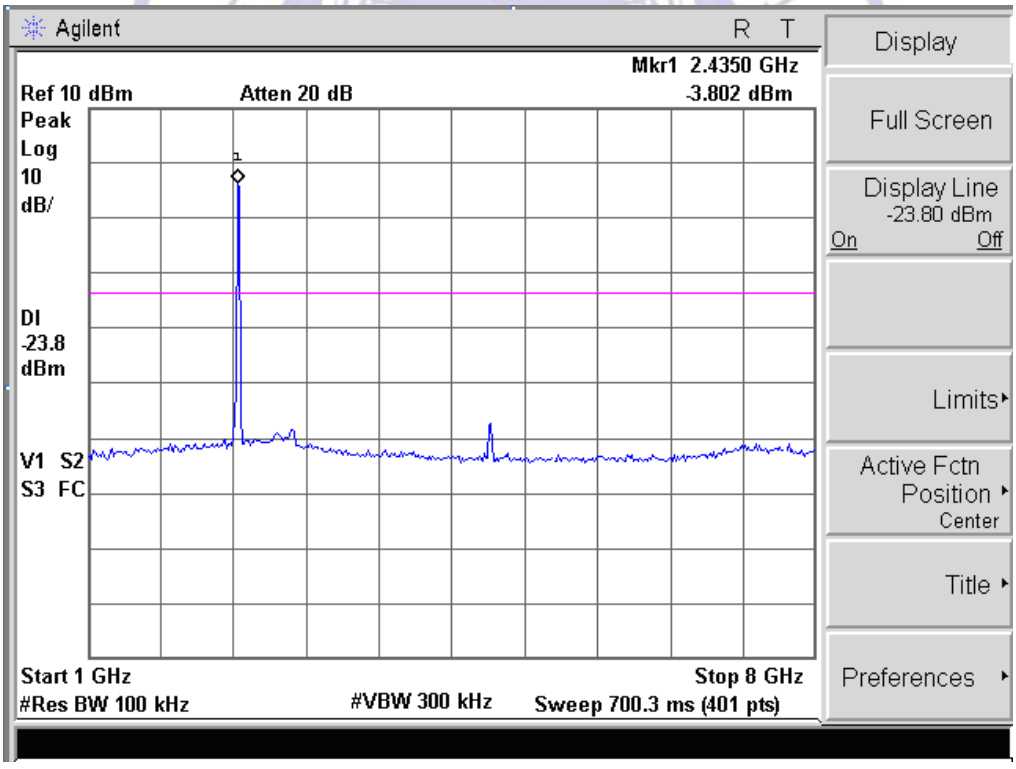



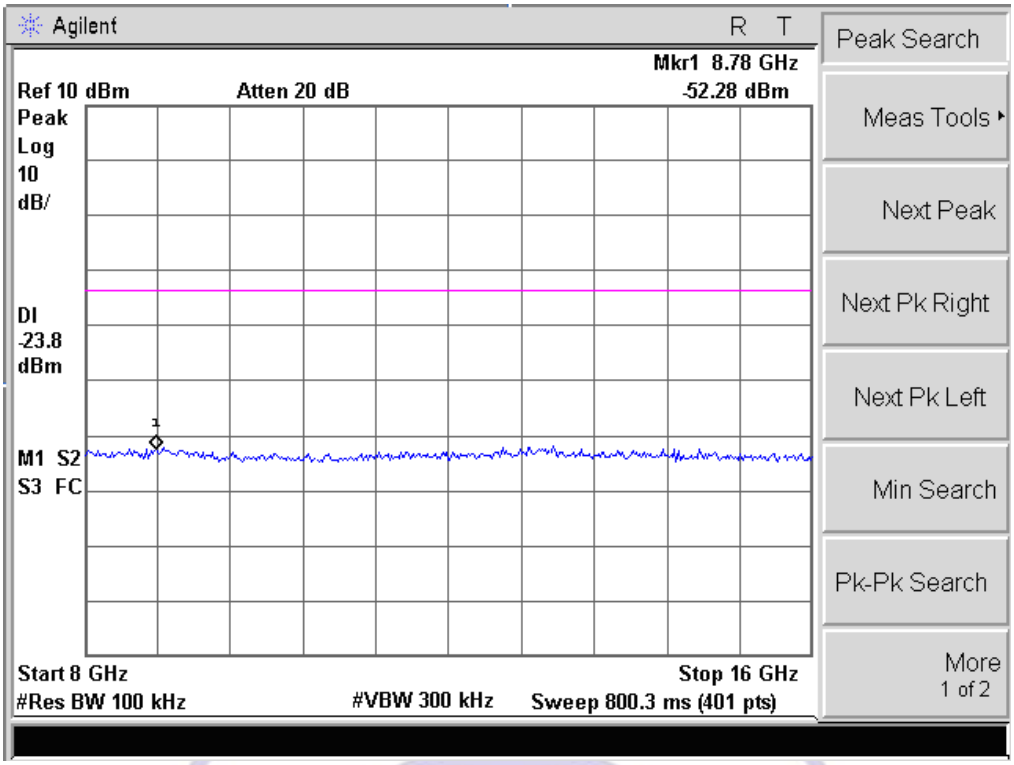

Agilent
R T
Mkr1 8.78 GHz
Ref 10 dBm
Atten 20 dB
-51.87 dBm
Peak
Log
10
dB/
DI
-24.7
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

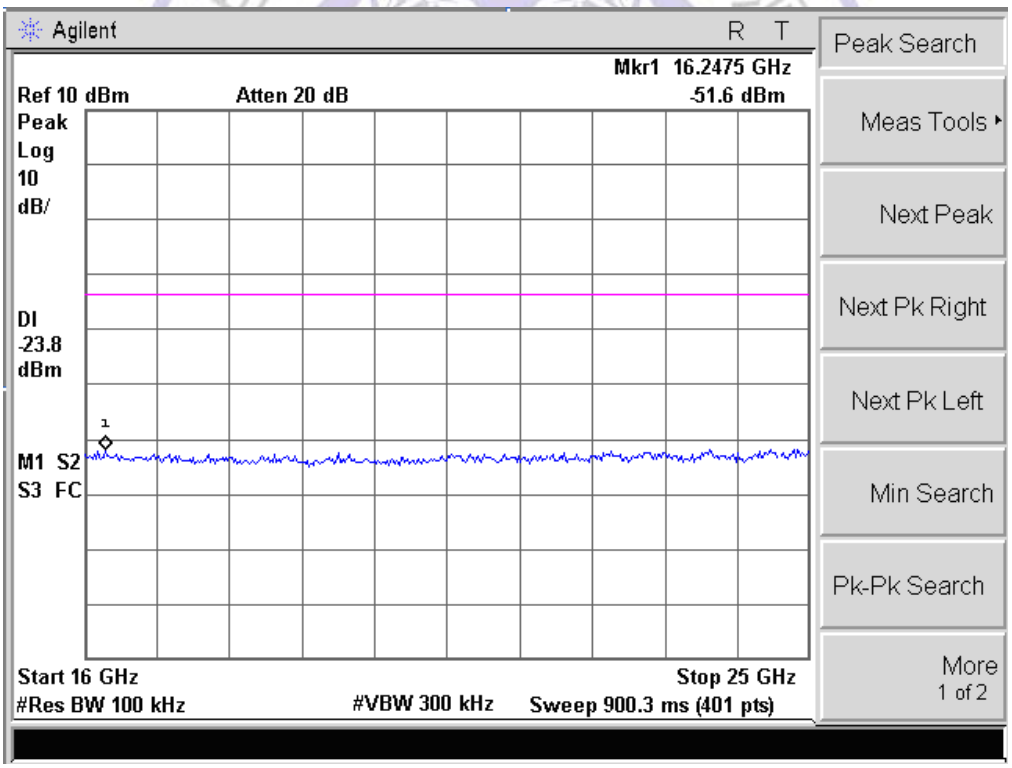

Agilent
R T
Mkr1 24.5050 GHz
Ref 10 dBm
Atten 20 dB
-51.48 dBm
Peak
Log
10
dB/
DI
-24.7
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 06 (2437MHz)**

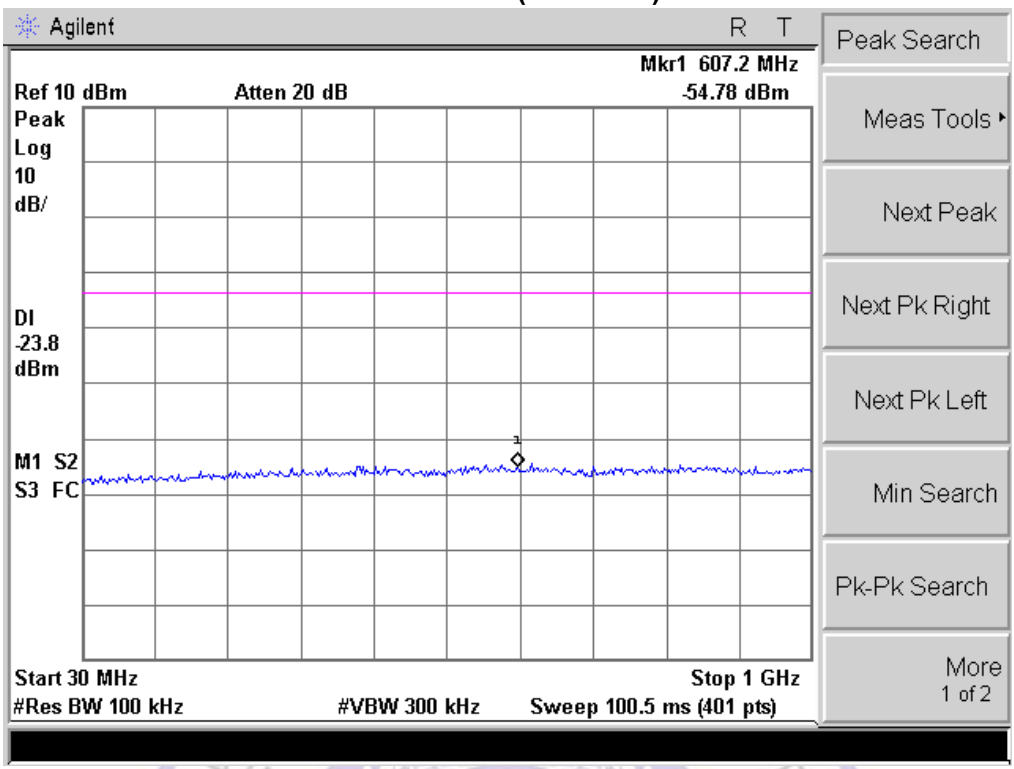


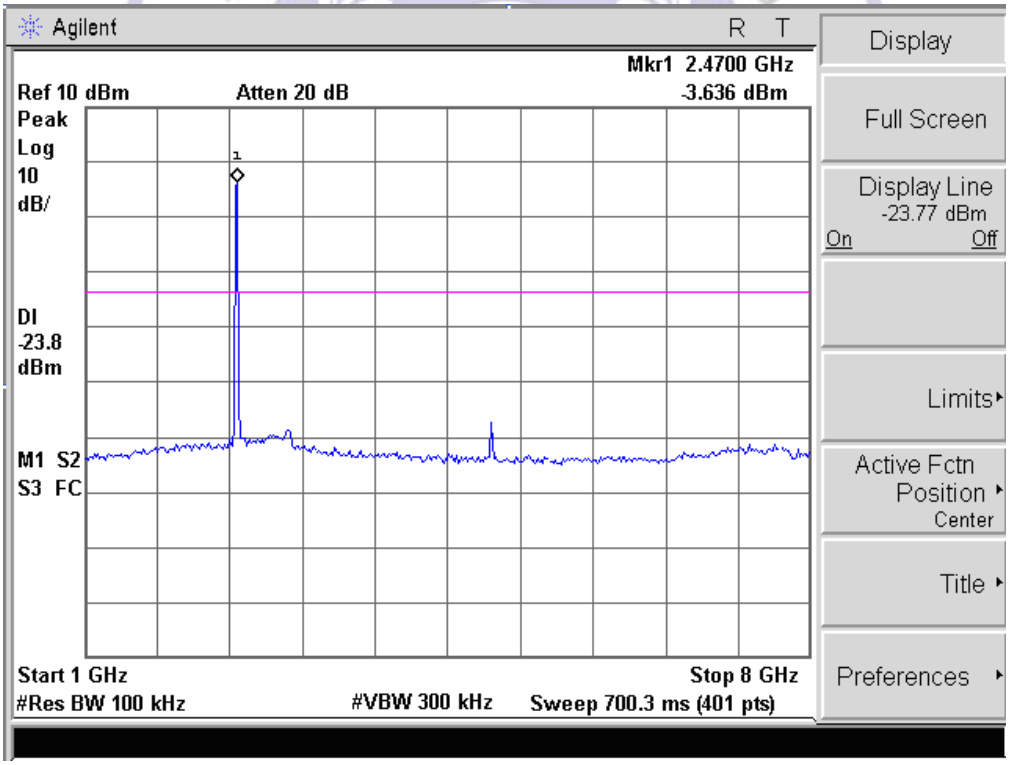



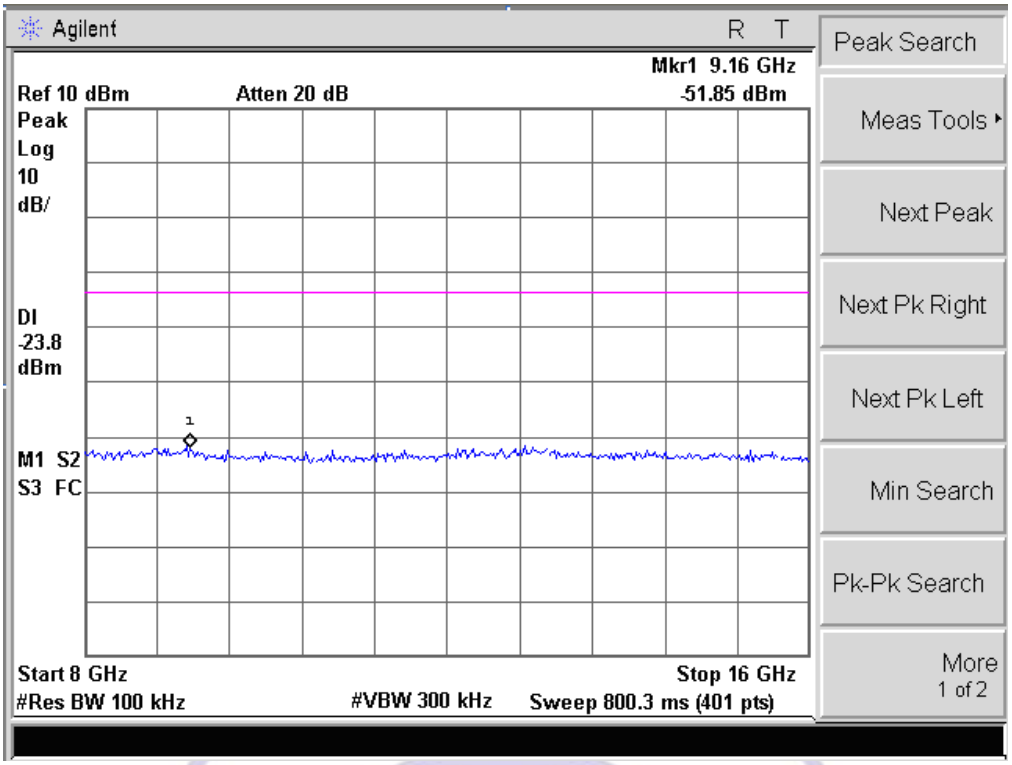

Agilent
R T
Mkr1 8.78 GHz
Ref 10 dBm
Atten 20 dB
-52.28 dBm
Peak
Log
10
dB/
DI
-23.8
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

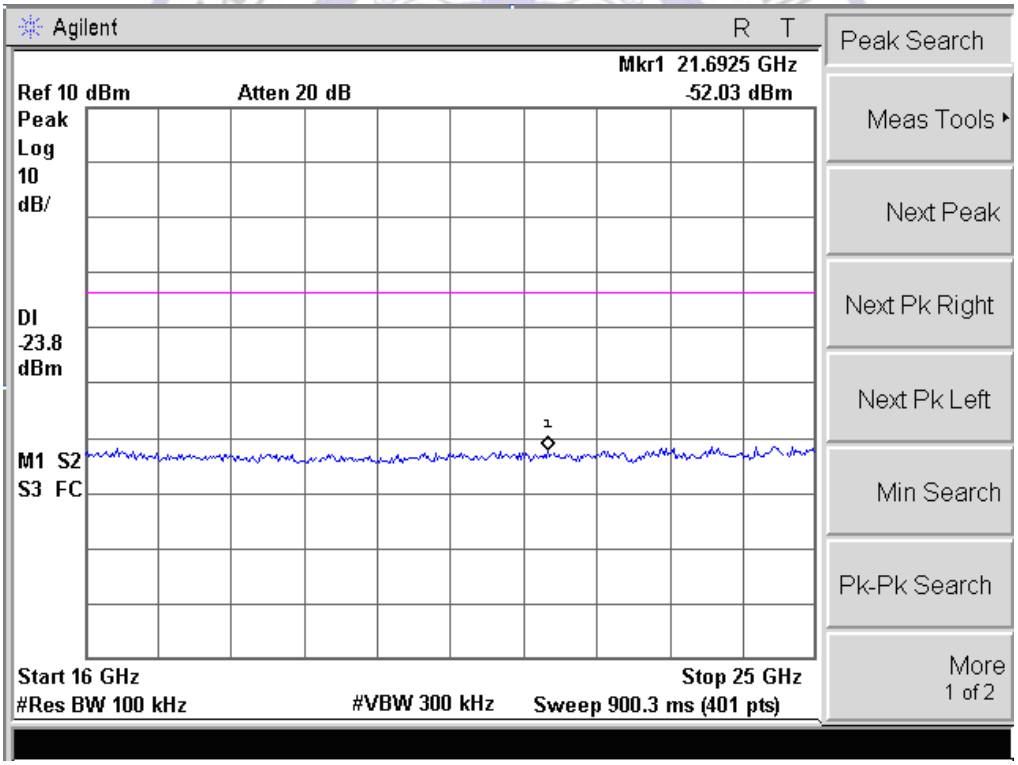

Agilent
R T
Mkr1 16.2475 GHz
Ref 10 dBm
Atten 20 dB
-51.6 dBm
Peak
Log
10
dB/
DI
-23.8
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 11 (2462MHz)**



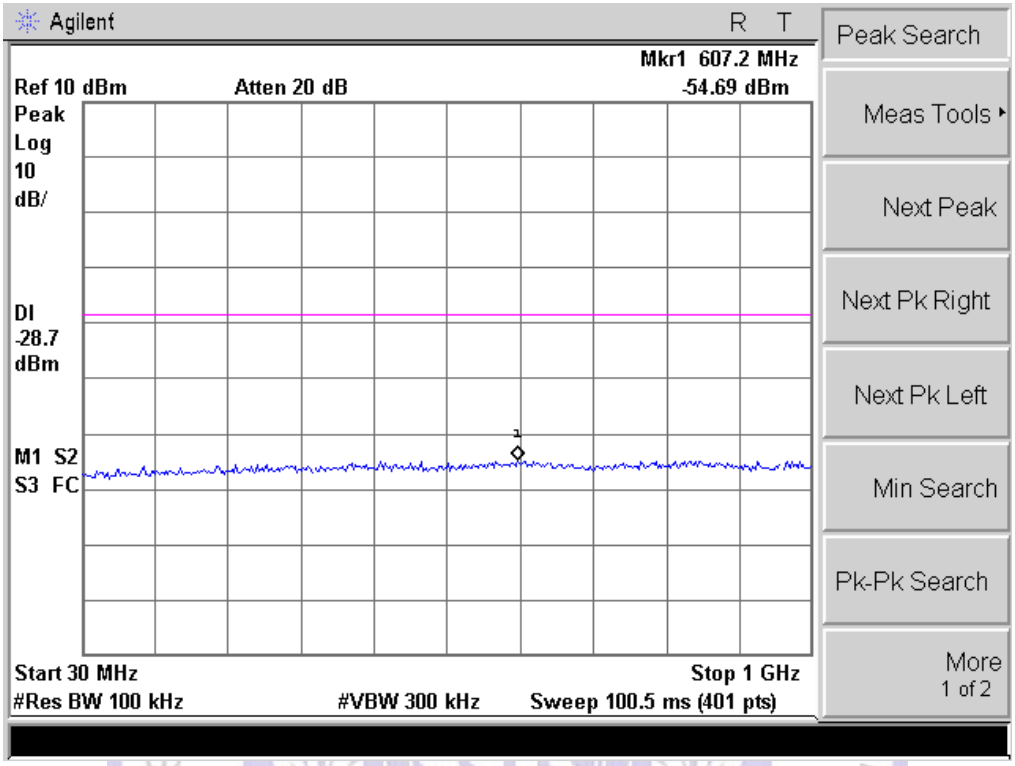



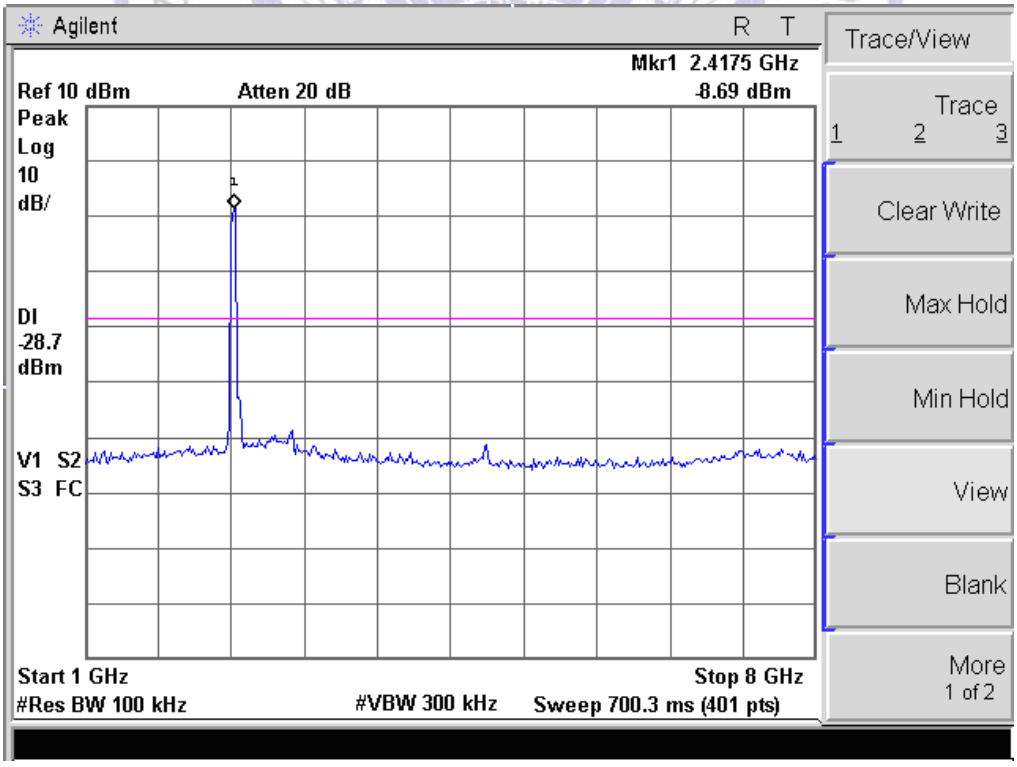

Agilent
R T
Mkr1 9.16 GHz
Ref 10 dBm
Atten 20 dB
-51.85 dBm
Peak
Log
10
dB/
DI
-23.8
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

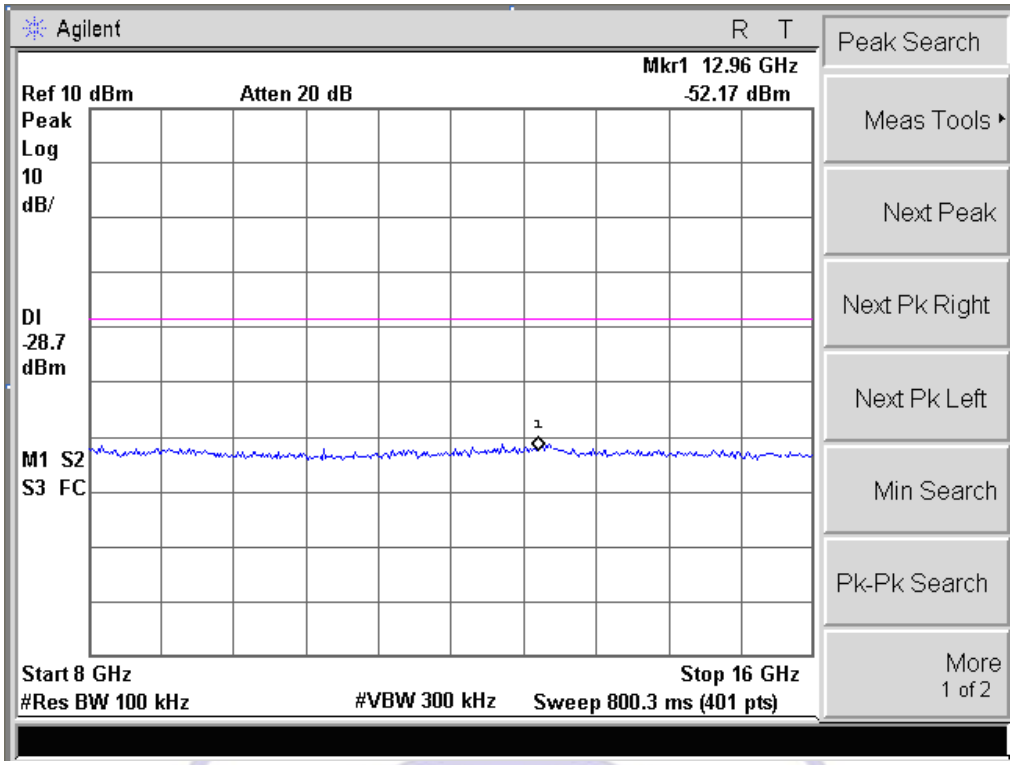

Agilent
R T
Mkr1 21.6925 GHz
Ref 10 dBm
Atten 20 dB
-52.03 dBm
Peak
Log
10
dB/
DI
-23.8
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

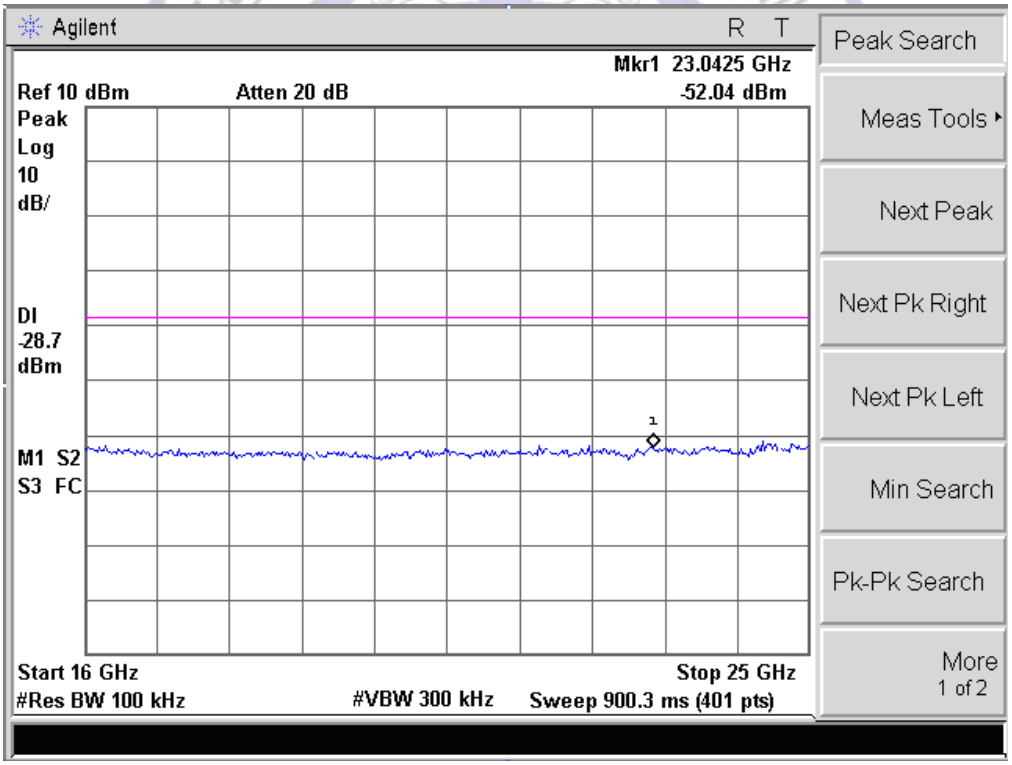
| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) |

**Channel 03 (2422MHz)**

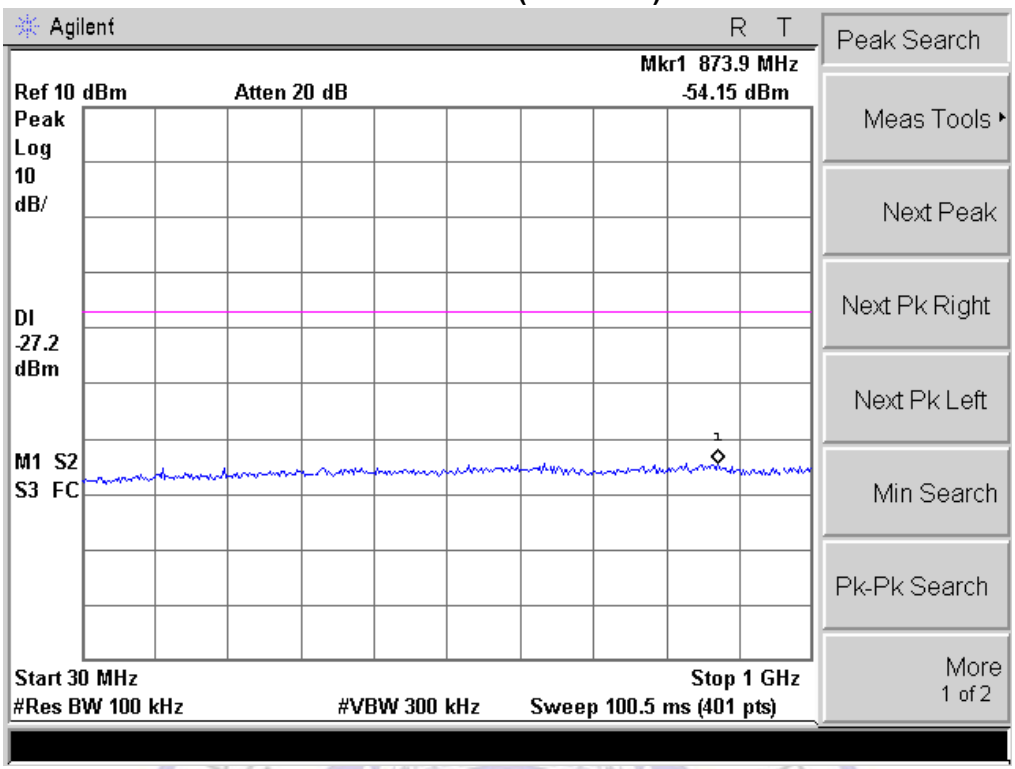


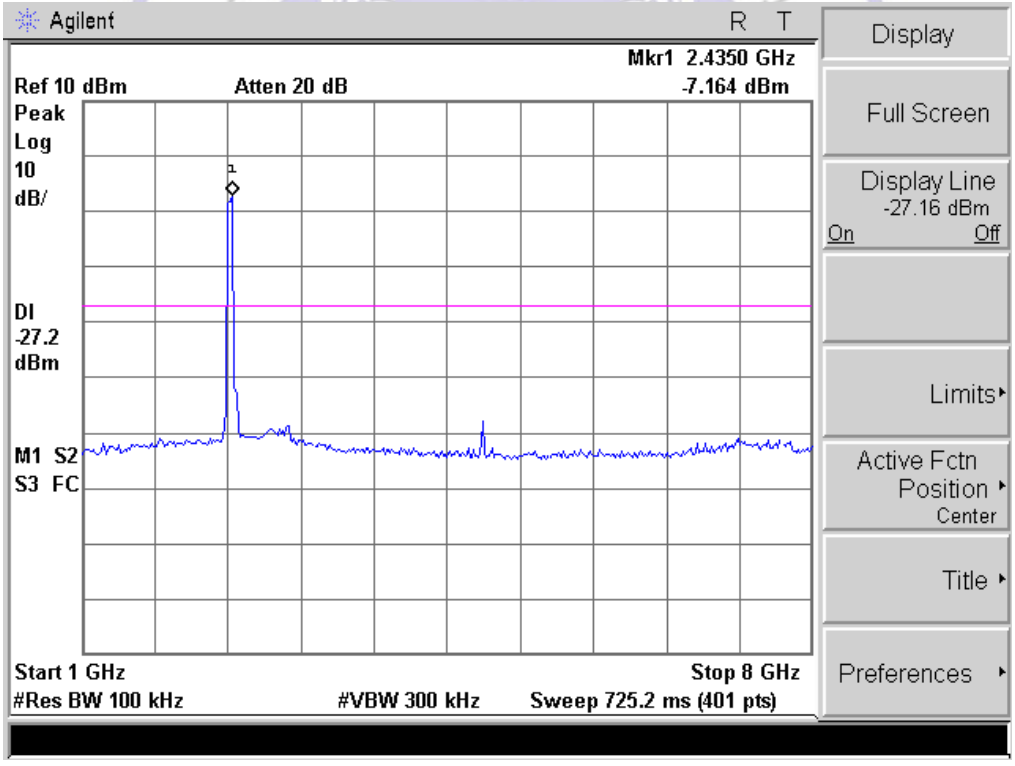



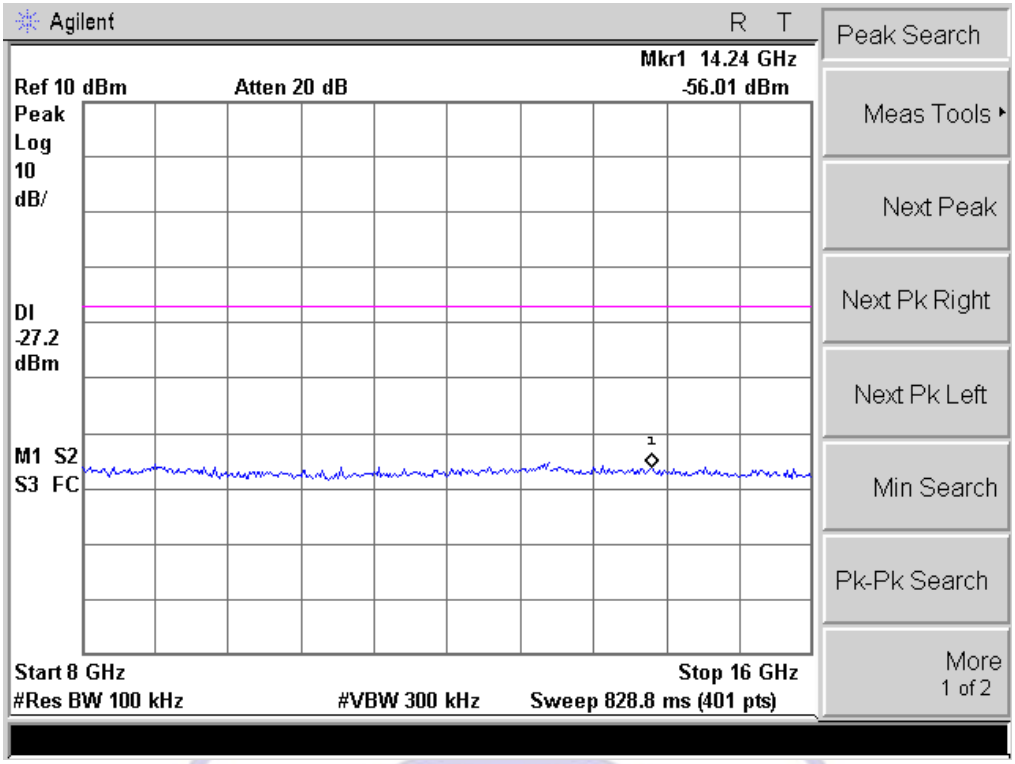

Agilent
R T
Mkr1 12.96 GHz
Ref 10 dBm
Atten 20 dB
-52.17 dBm
Peak
Log
10
dB/
Dl
-28.7
dBm
M1 S2
S3 FC
Start 8 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 16 GHz
Sweep 800.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

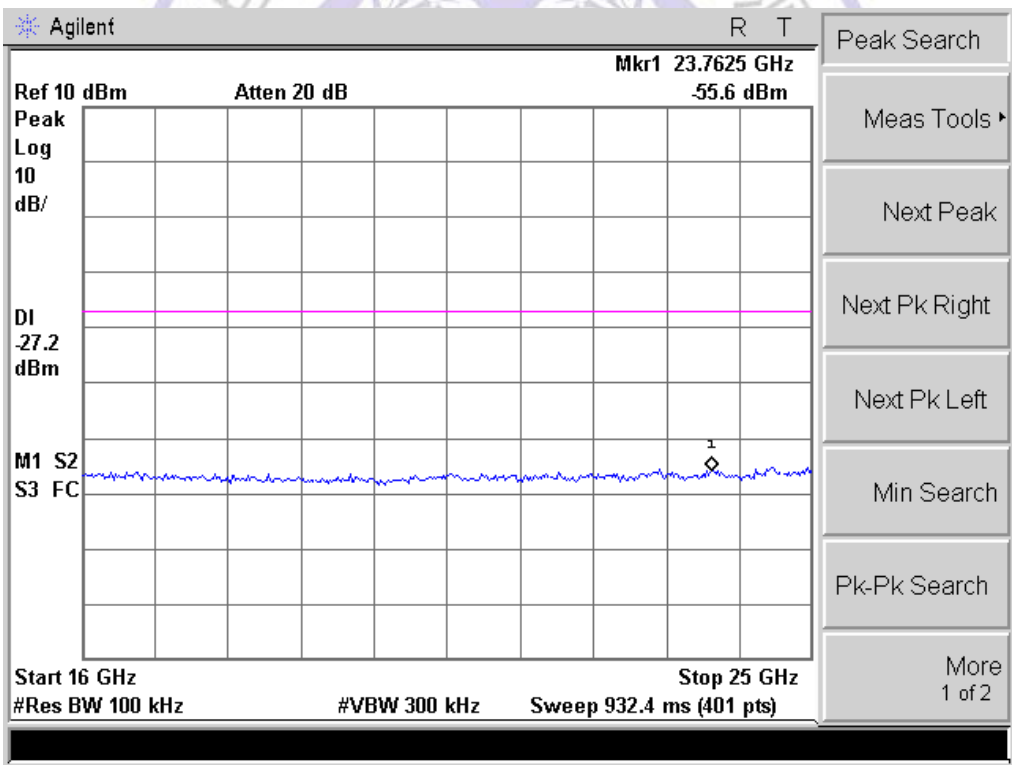

Agilent
R T
Mkr1 23.0425 GHz
Ref 10 dBm
Atten 20 dB
-52.04 dBm
Peak
Log
10
dB/
Dl
-28.7
dBm
M1 S2
S3 FC
Start 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25 GHz
Sweep 900.3 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 06 (2437MHz)**

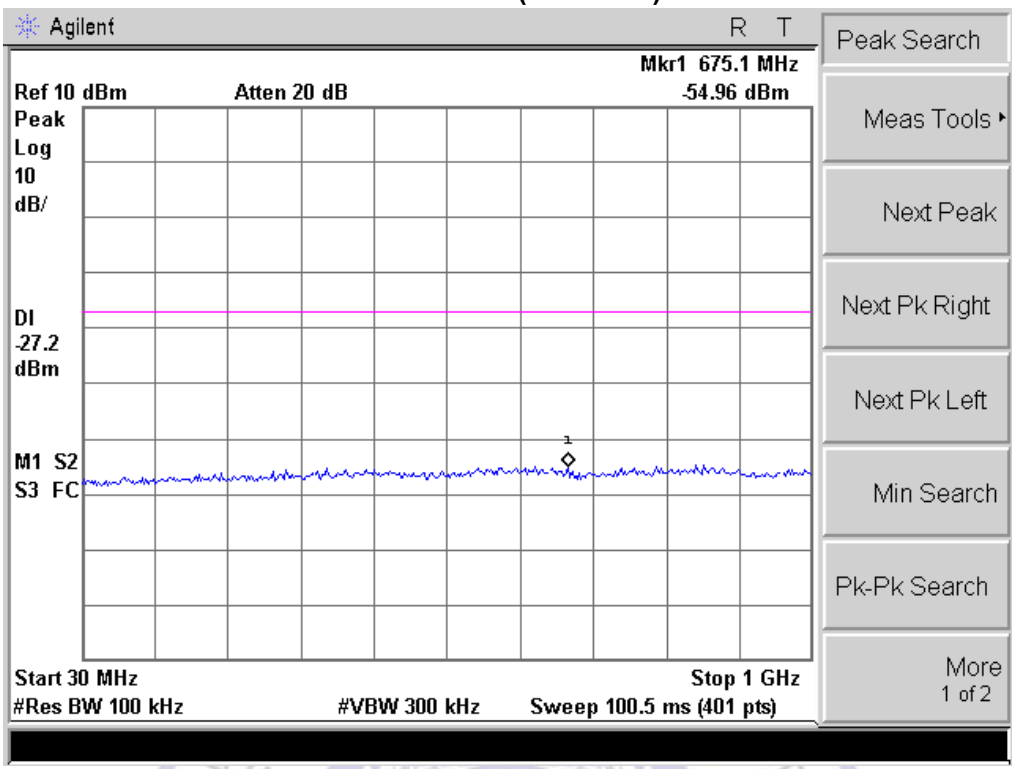


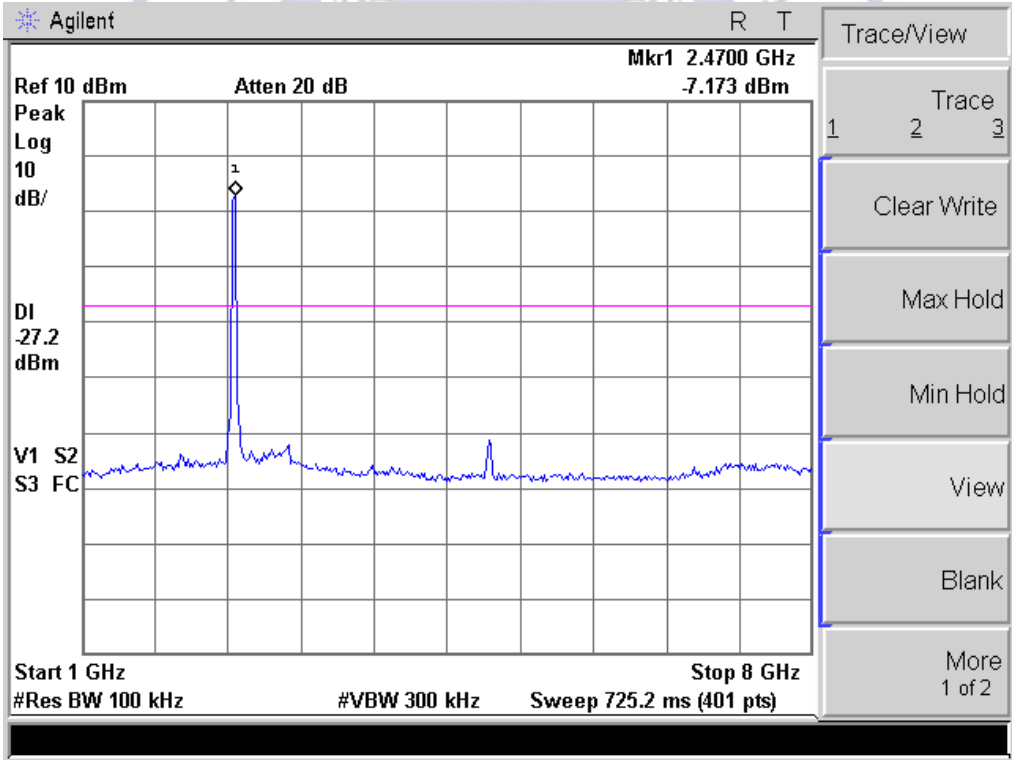



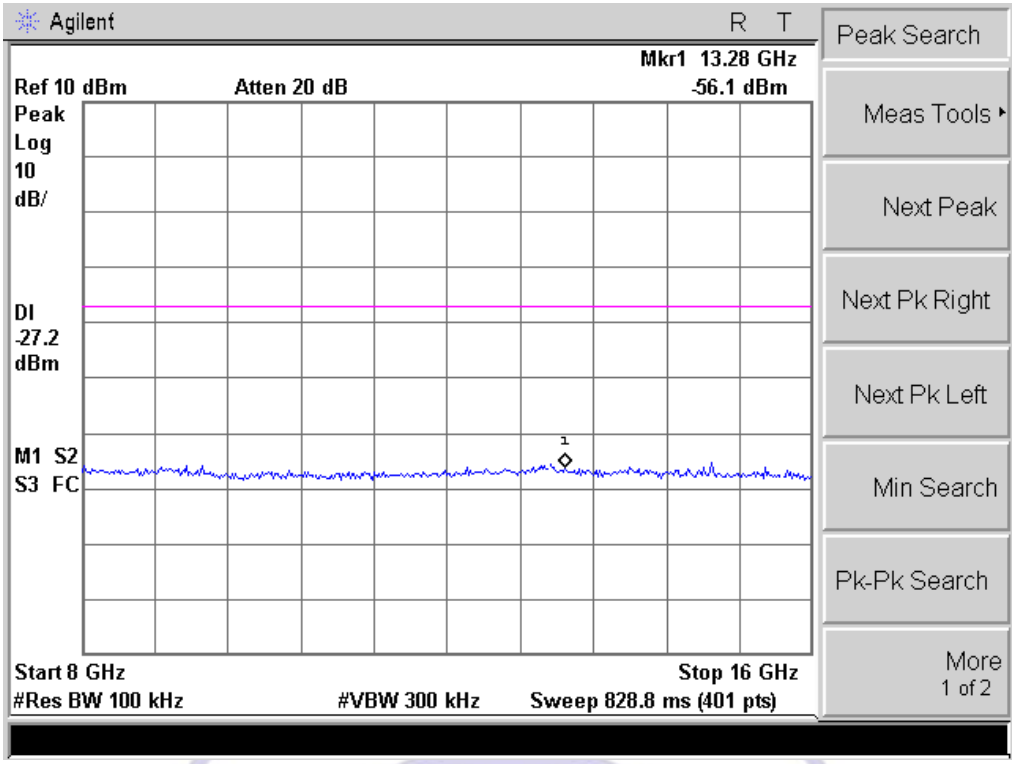

Agilent
R T
Mkr1 14.24 GHz
Ref 10 dBm
Atten 20 dB
-56.01 dBm
Peak
Log
10
dB/
Dl
-27.2
dBm
M1 S2
S3 FC
Start 8 GHz
Stop 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 828.8 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

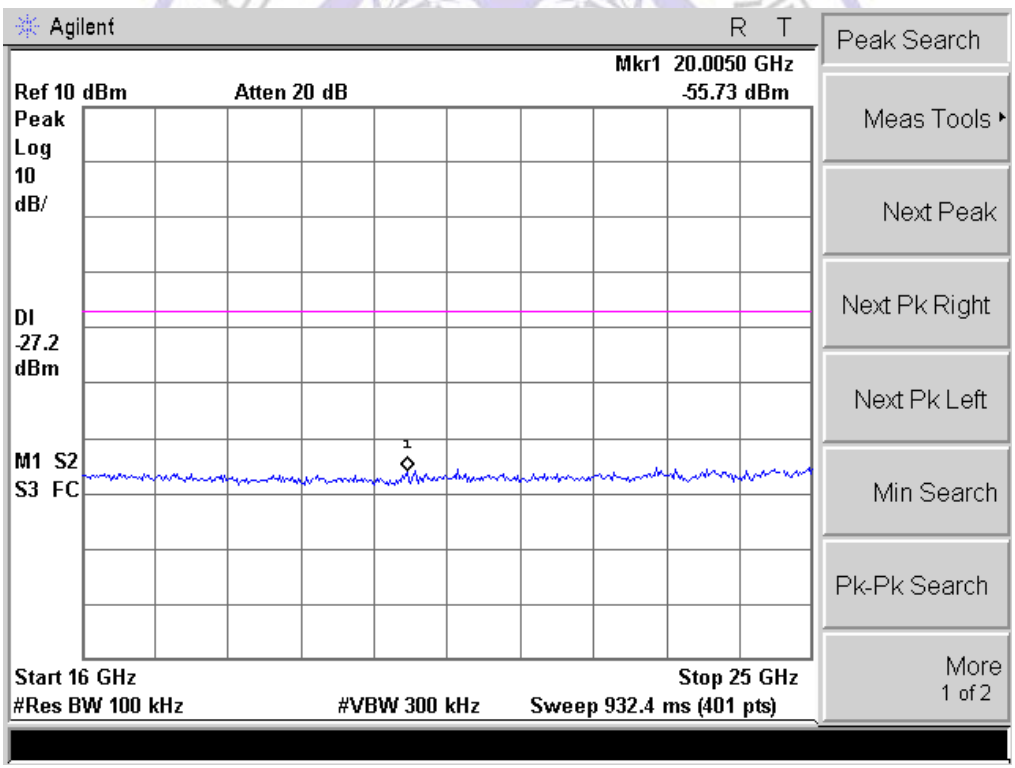

Agilent
R T
Mkr1 23.7625 GHz
Ref 10 dBm
Atten 20 dB
-55.6 dBm
Peak
Log
10
dB/
Dl
-27.2
dBm
M1 S2
S3 FC
Start 16 GHz
Stop 25 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 932.4 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

**Channel 09 (2452MHz)**



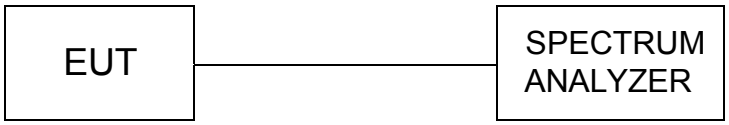




Agilent
R T
Mkr1 13.28 GHz
Ref 10 dBm
Atten 20 dB
-56.1 dBm
Peak
Log
10
dB/
Dl
-27.2
dBm
M1 S2
S3 FC
Start 8 GHz
Stop 16 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 828.8 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2


Agilent
R T
Mkr1 20.0050 GHz
Ref 10 dBm
Atten 20 dB
-55.73 dBm
Peak
Log
10
dB/
Dl
-27.2
dBm
M1 S2
S3 FC
Start 16 GHz
Stop 25 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 932.4 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

## 4.8. Operation Frequency Range of 20dB Bandwidth

**TEST CONFIGURATION**




**TEST PROCEDURE**

The EUT was tested according to KDB558074 D01 v03r01 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

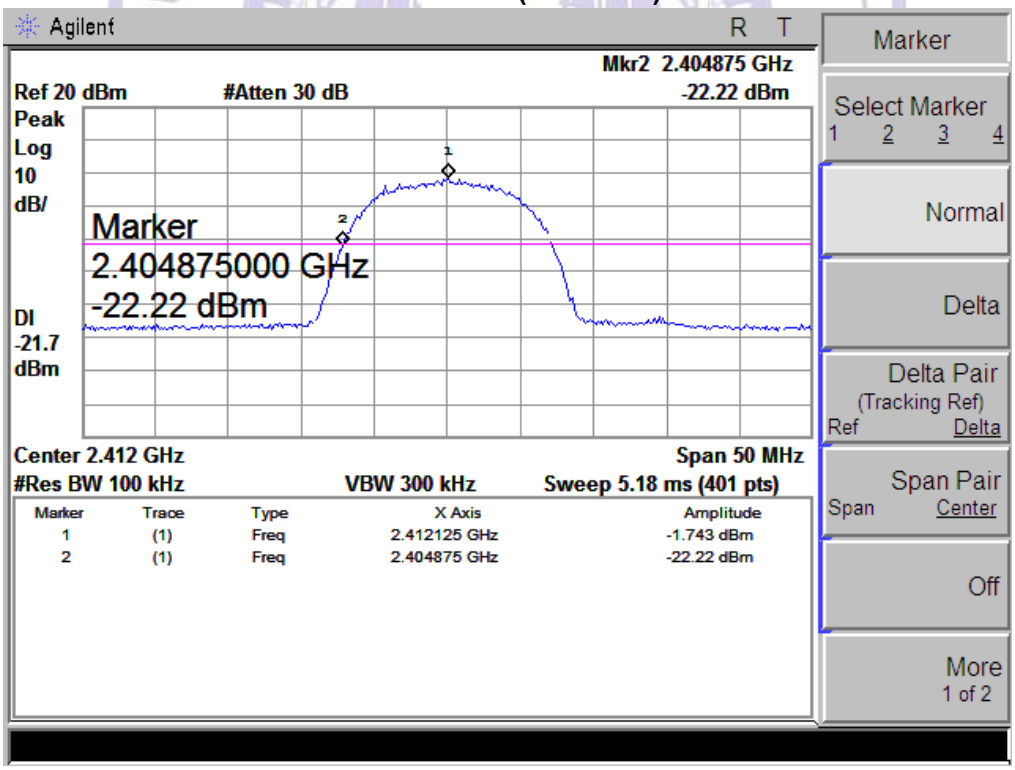
**LIMIT**

20 dB bandwidth of the emission is contained within the operation frequency band.

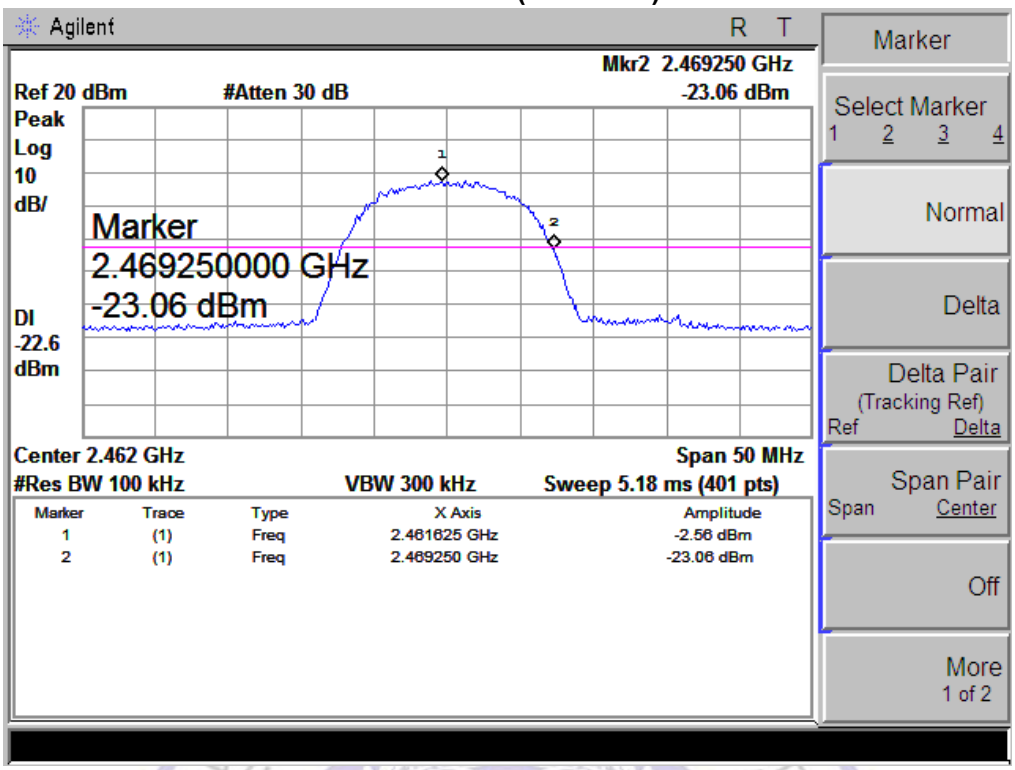
**TEST RESUTL**

| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Mode | : | Mode 1: Transmit by 802.11b |

**Channel 01 (2412MHz)**

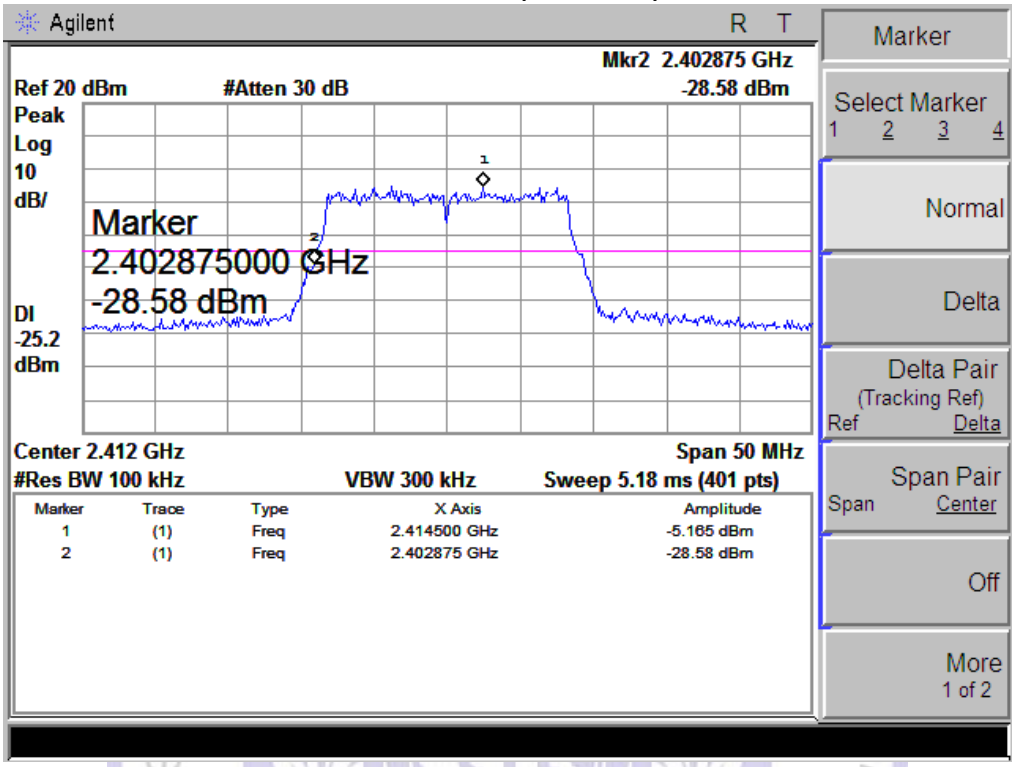


**Channel 11 (2462MHz)**

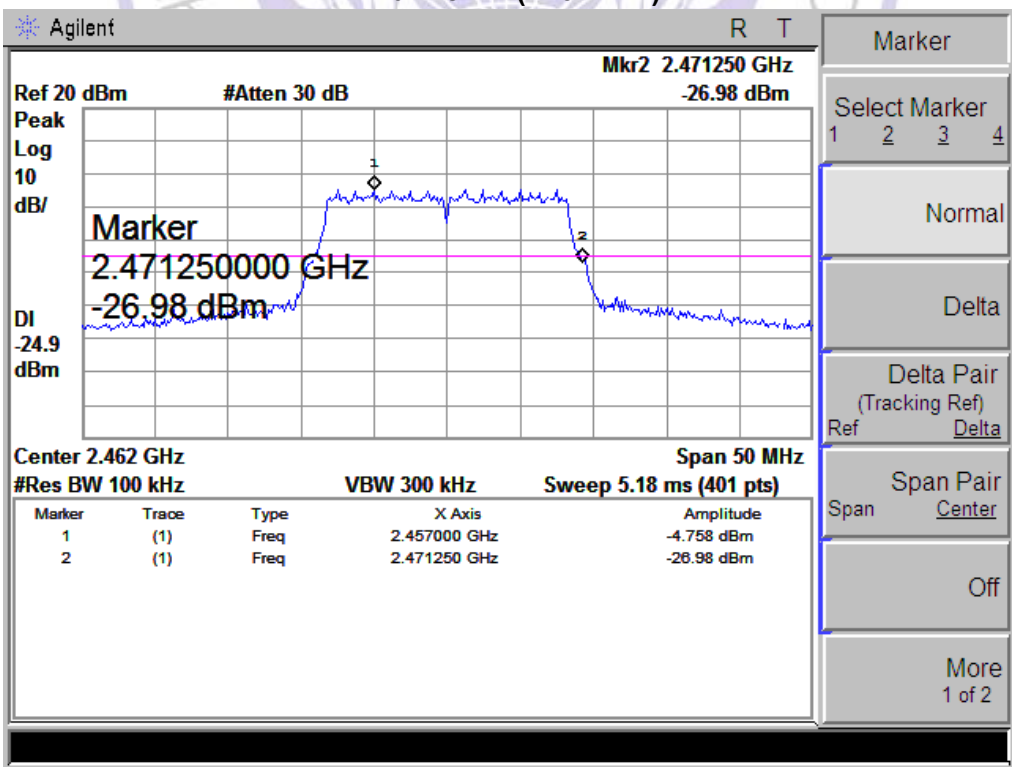


| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Mode | : | Mode 2: Transmit by 802.11g |

**Channel 01 (2412MHz)**

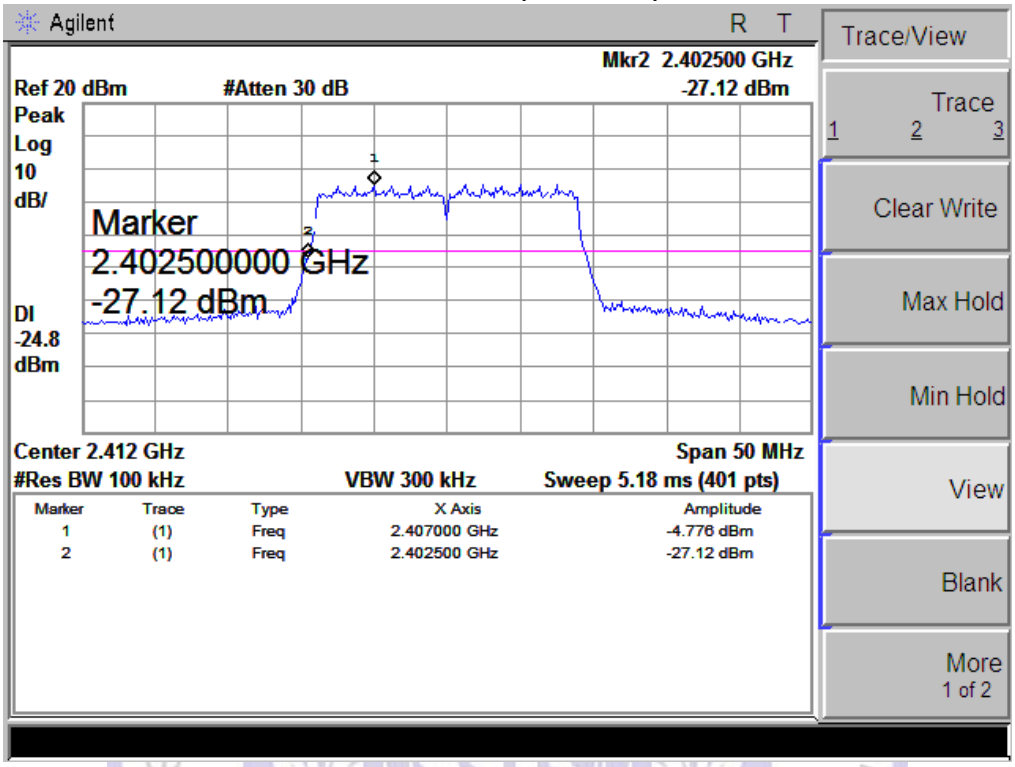



**Channel 11 (2462MHz)**

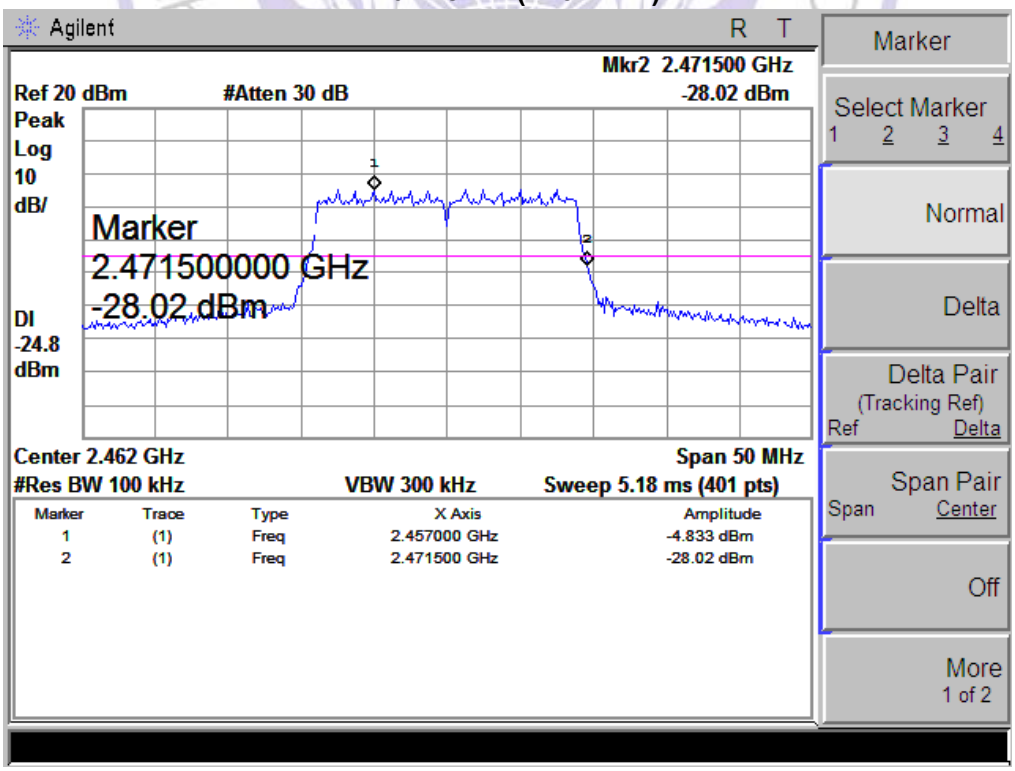


| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) |

**Channel 01 (2412MHz)**

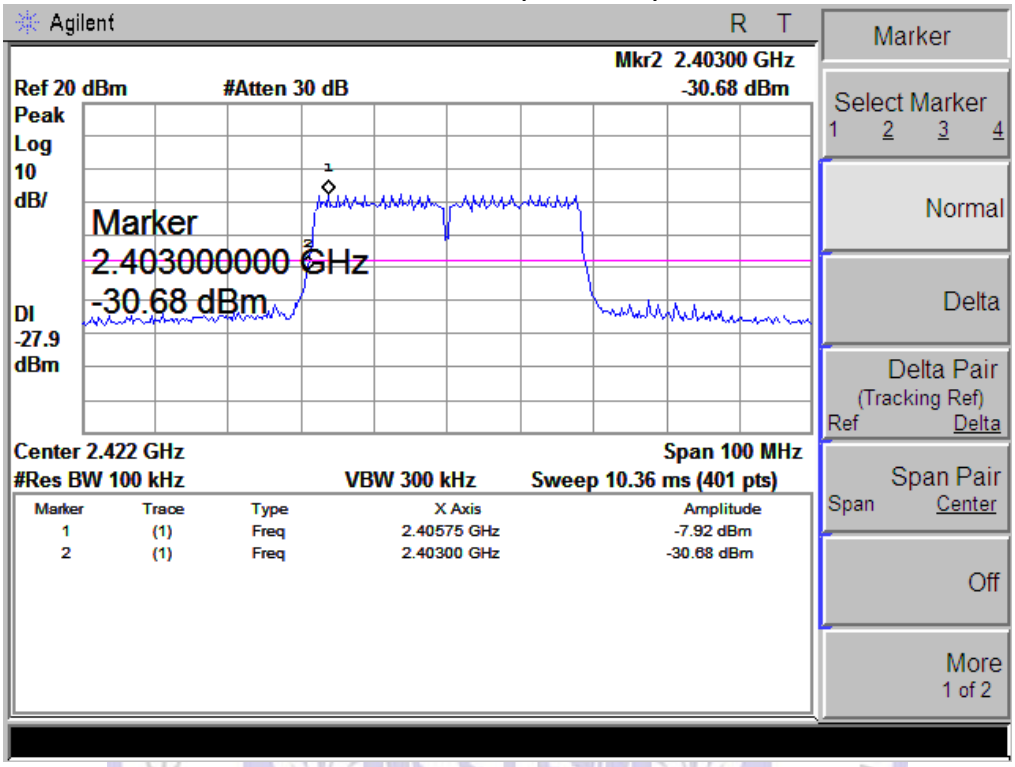



**Channel 11 (2462MHz)**

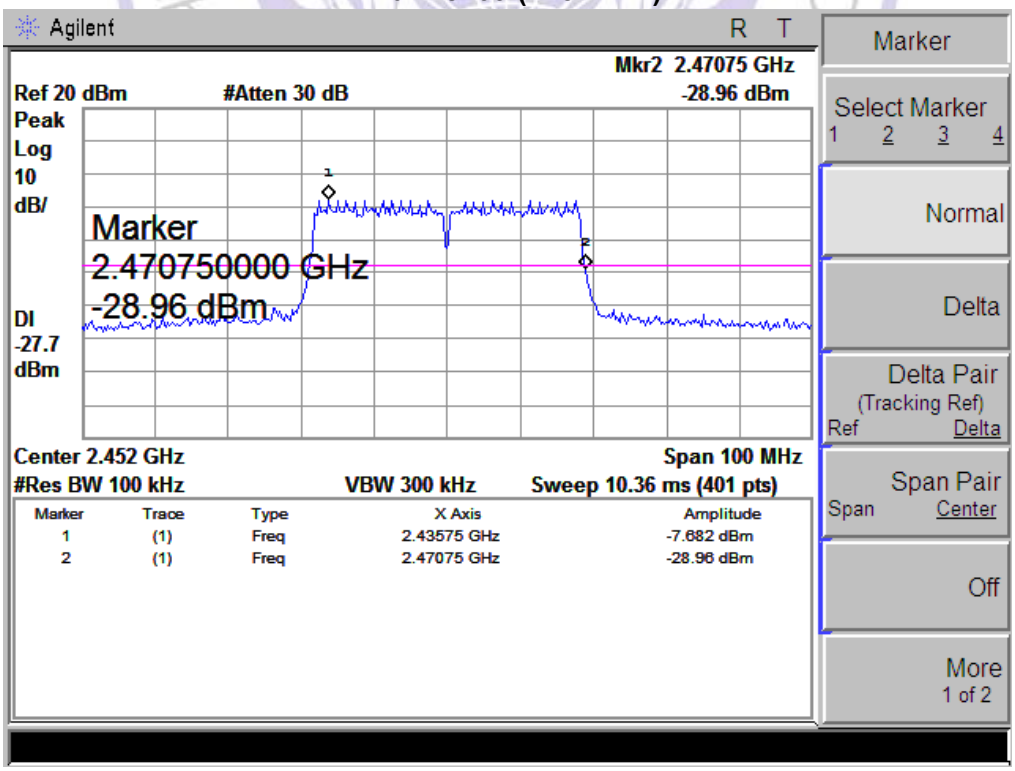


| | | |
|---|---|---|
| Product | : | 7” Android Tablet PC |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) |

**Channel 03 (2422MHz)**




**Channel 09 (2452MHz)**



## 4.9. Antenna Requirement

**STANDARD APPLICABLE**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

**Refer to statement below for compliance.**

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

**ANTENNA CONNECTED CONSTRUCTION**

The directional gains of antenna used for transmitting is -1.0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Please see EUT photo for details.

## 4.10. RF Exposure

**STANDARD APPLICABLE**

According to § 1.1307 (b)(1), system operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a portable device. Per KDB 447498 D01 v05, the device used distance is 5mm from body.

**LIMIT**

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm2) | Average Time (Minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational/ Control Exposures | | | | |
| 300-1500 | -- | -- | F/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |
| (B) Limits for General Population/ Uncontrolled Exposures | | | | |
| 300-1500 | -- | -- | F/1500 | 6 |
| 1500-100,000 | -- | -- | 1 | 30 |

F= Frequency in MHz

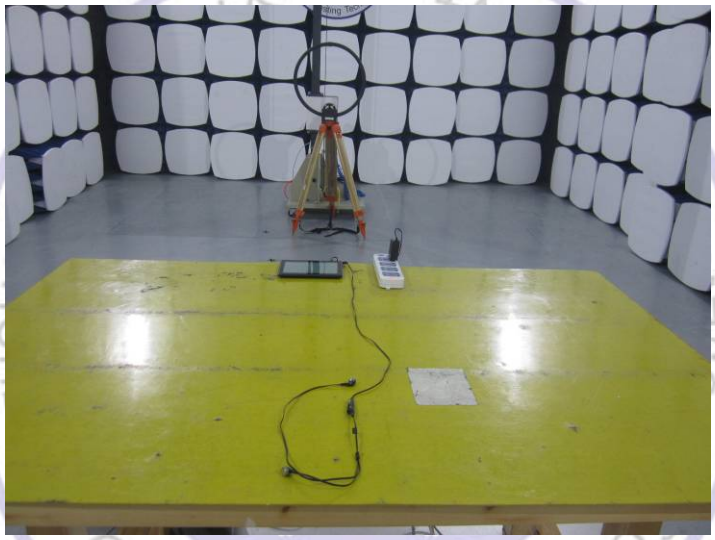
**MEASUREMENT RESULTS**

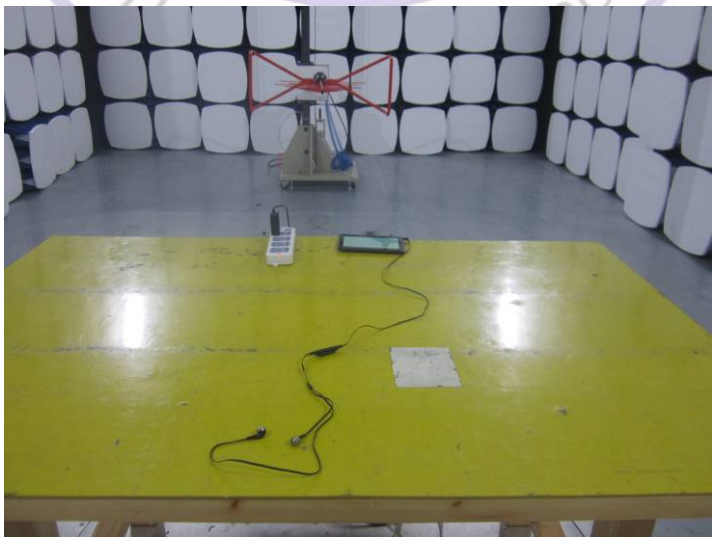
Per KDB 447498 D01 V05

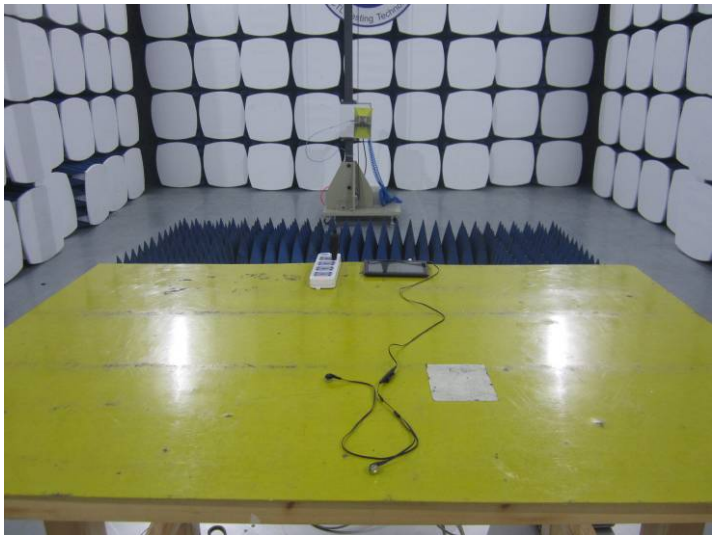
This is a Wi-Fi function and the Max peak output power is 9.60dBm (9.12mW) lower than low threshold 10 mW in general population category.

The SAR measurement is not necessary.

# 5. Test Setup Photos of the EUT

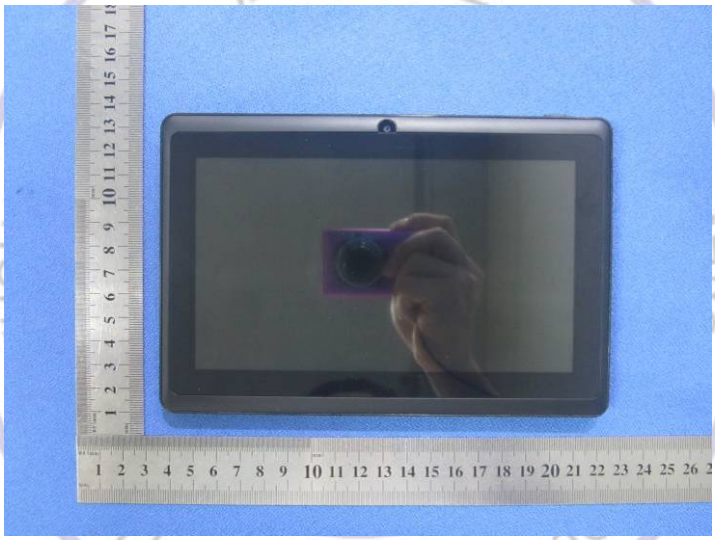






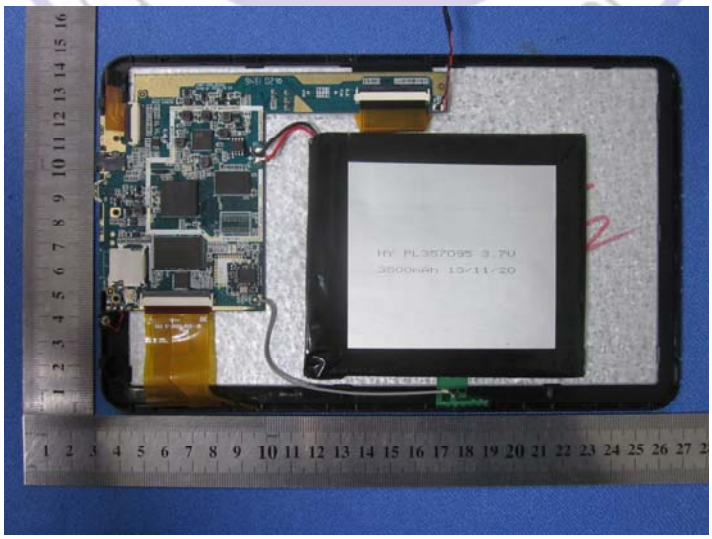
# 6. External and Internal Photos of the EUT

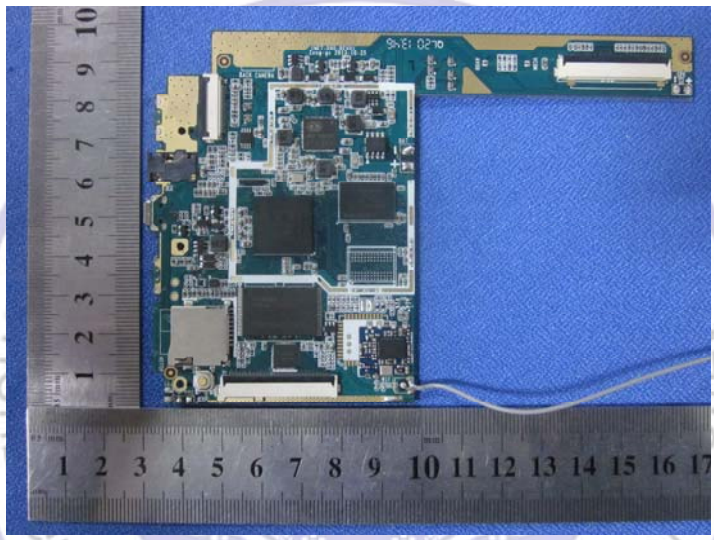
## External Photos of EUT

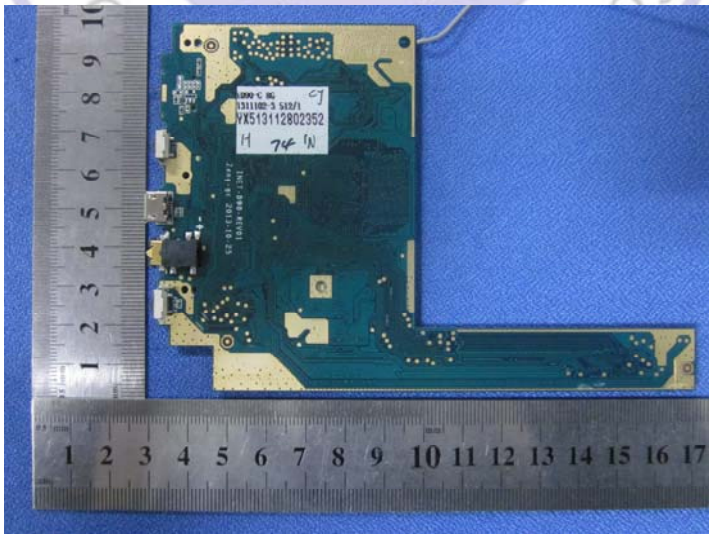


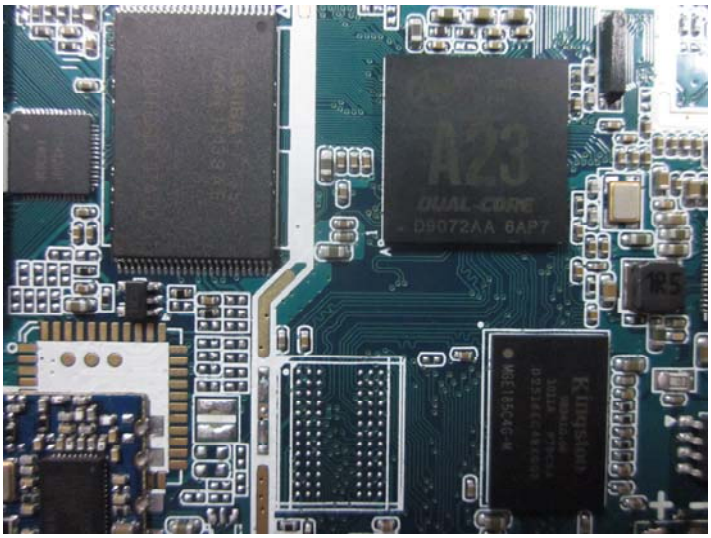

TF CARD

**Internal Photos of EUT**






YX513112802352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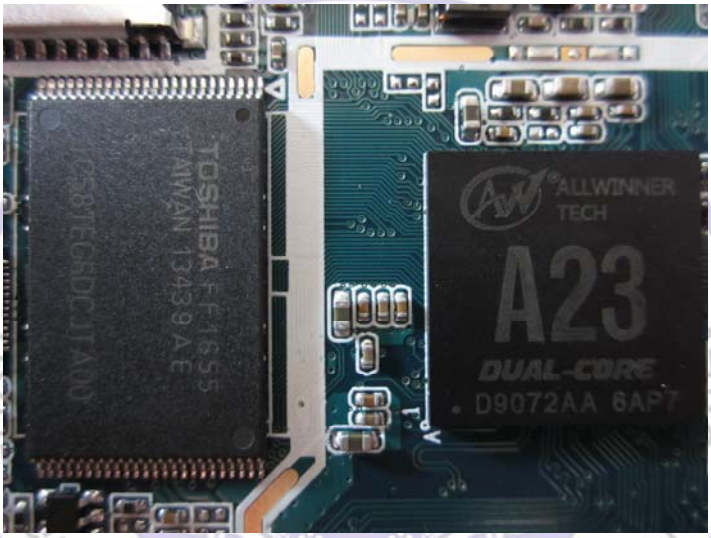
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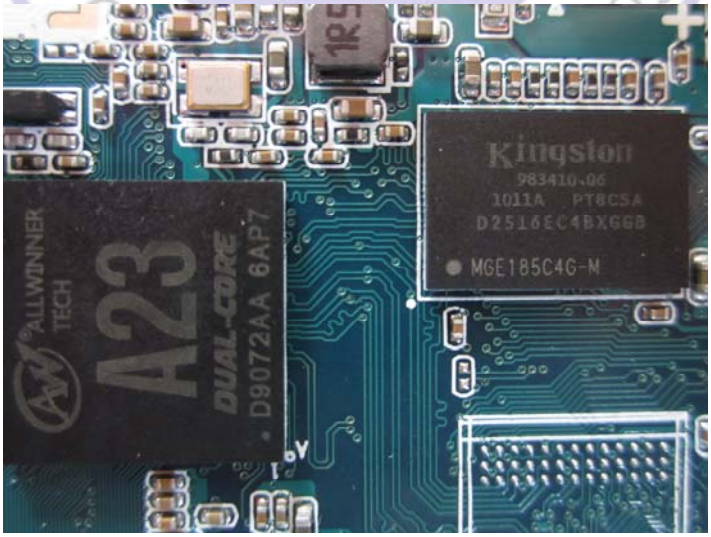
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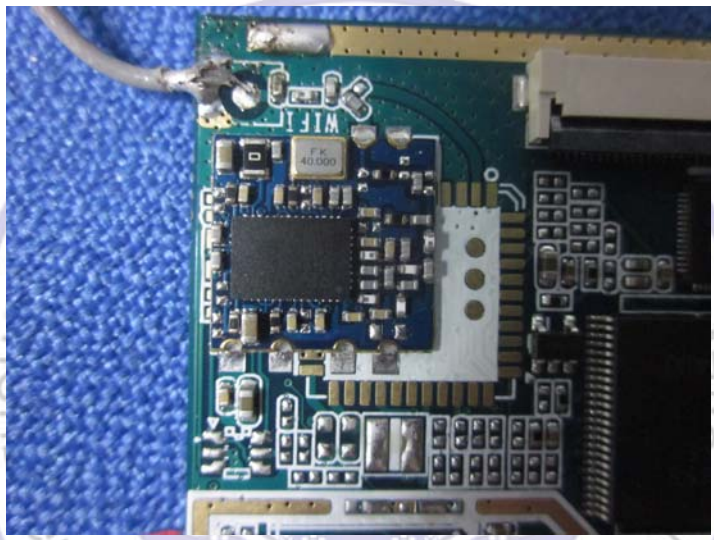

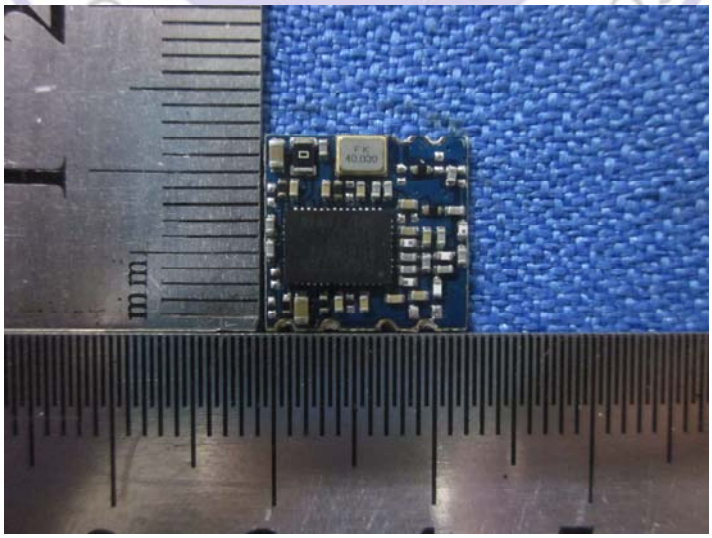
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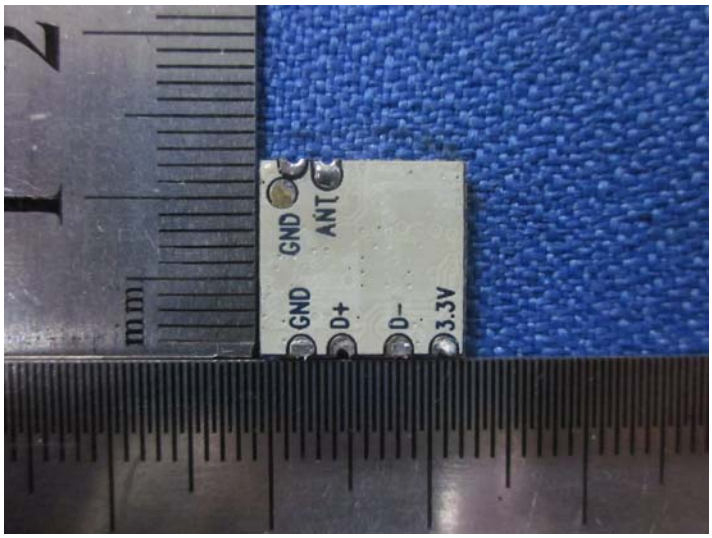


**.....End of Report.....**