Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

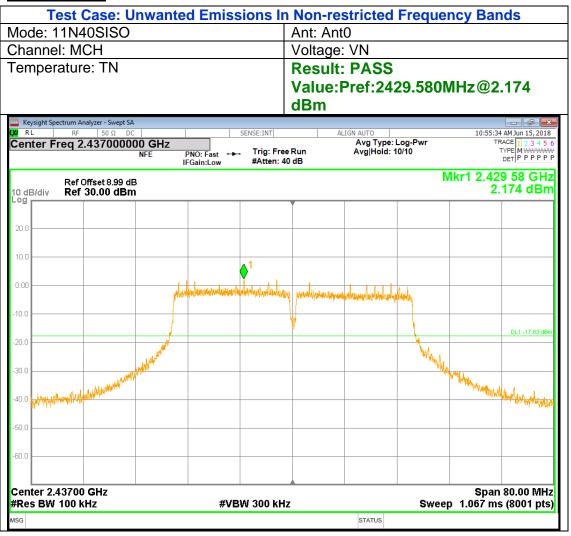
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40SISO Ant: Ant0 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;23934.000MHz@-44.413 dBm 10:49:28 AM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 23.934 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.413 dBm 10 dB/div Log 8.99 DL1 -19.12 dB -31 f

#VBW 300 kHz



Middle Channel





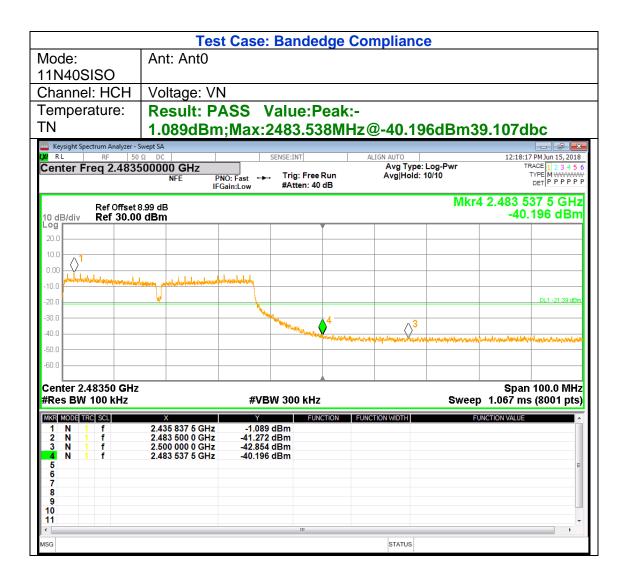
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40SISO Ant: Ant0 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;2288.205MHz@-45.762 dBm 10:55:45 AM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Center Freg 5.015000000 GHz Trig: Free Run PNO: Fast IFGain:Low #Atten: 30 dB Mkr2 2.288 2 GHz -45.762 dBm Ref Offset 8.99 dB Ref 28.99 dBm 10 dB/div Log $\langle \rangle$ DL1 -17.83 dB Stop 10.000 GHz Start 30 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 32.53 ms (8001 pts)



Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40SISO Ant: Ant0 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25432.000MHz@-44.065 dBm SENSE:INT 10:55:55 AM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 TRACE Center Freq 18.000000000 GHz Trig: Free Run PNO: Fast IFGain:Low #Atten: 30 dB Mkr1 25.432 GHz -44.065 dBm Ref Offset 8.99 dB Ref 28.99 dBm 10 dB/div Log DL1 -17.83 dB Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 52.27 ms (8001 pts) STATUS



High Channel



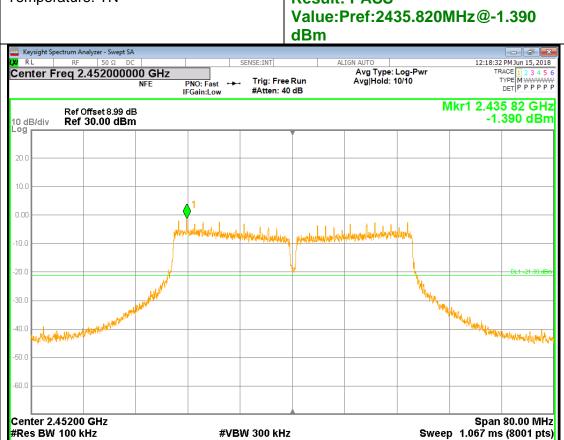


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N40SISO Ant: Ant0

Channel: HCH Voltage: VN

Temperature: TN Result: PASS





Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40SISO Ant: Ant0 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;4930.255MHz@-46.634 dBm SENSE:INT 12:18:43 PM Jun 15, 2018 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Center Freq 5.015000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low Mkr2 4.930 3 GHz Ref Offset 8.99 dB Ref 28.99 dBm 10 dB/div Log -46.634 dBm -51.0 Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 32.53 ms (8001 pts) STATUS

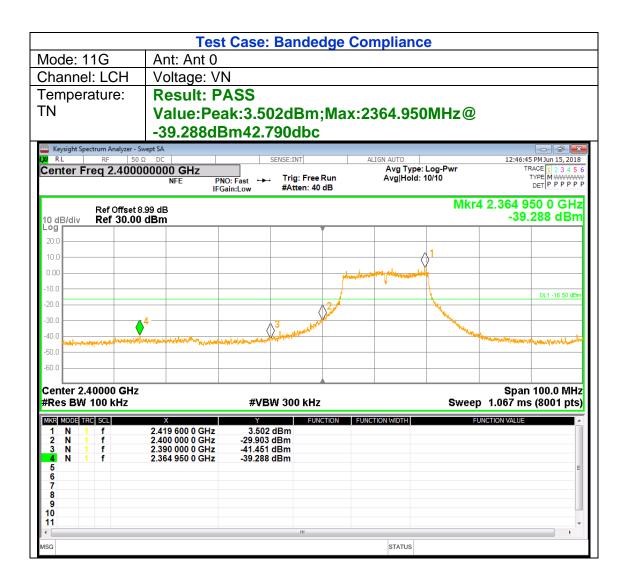


Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40SISO Ant: Ant0 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25596.000MHz@-44.064 dBm 12:18:53 PM Jun 15, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P Center Freq 18.000000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low Mkr1 25.596 GHz Ref Offset 8.99 dB Ref 28.99 dBm 10 dB/div Log -44.064 dBm Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 52.27 ms (8001 pts) STATUS



7.5.5. 802.11g MIMO MODE

Low Channel

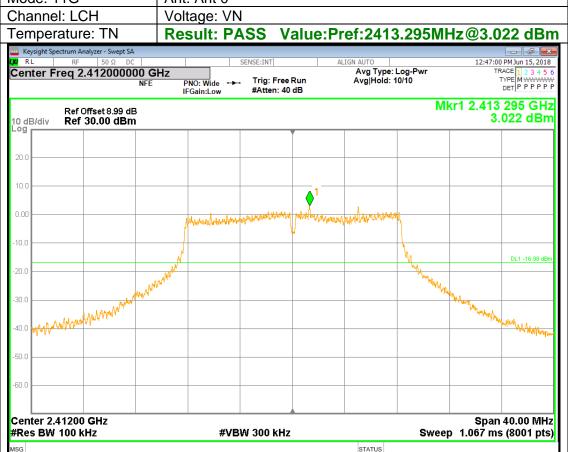


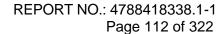


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

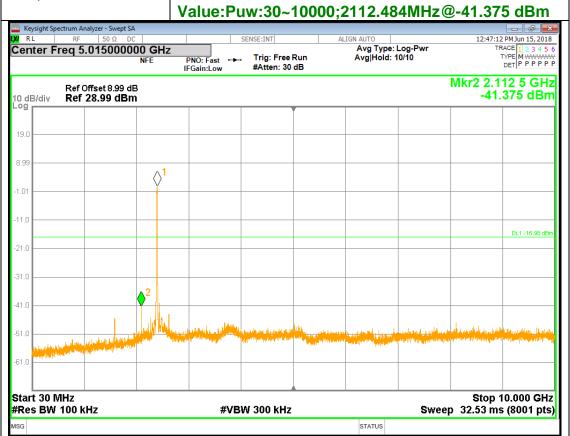
Mode: 11G Ant: Ant 0

Channel: LCH Voltage: VN









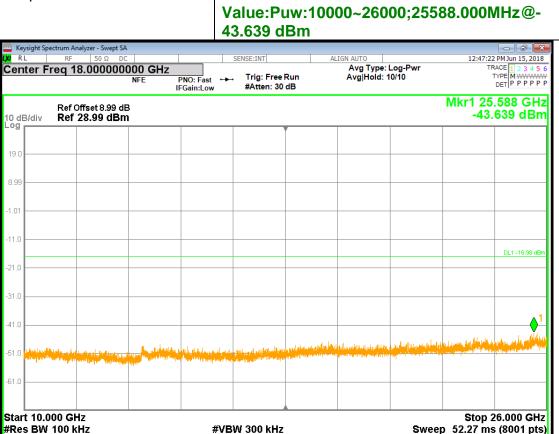


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11G Ant: Ant 0

Channel: LCH Voltage: VN

Temperature: TN Result: PASS

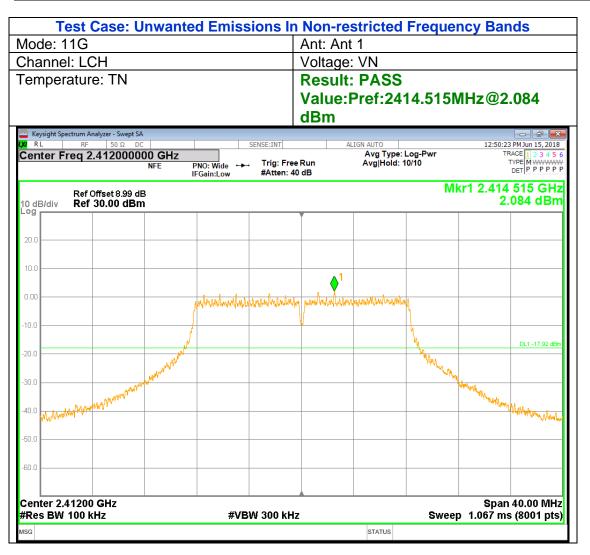




Test Case: Bandedge Compliance Mode: 11G Ant: Ant 1 Voltage: VN Channel: LCH Temperature: **Result: PASS** ΤN Value:Peak:1.472dBm;Max:2389.925MHz@-41.076dBm42.548dbc 12:50:08 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.400000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr4 2.389 925 0 GHz Ref Offset 8.99 dB -41.076 dBm 10 dB/div Log Ref 30.00 dBm 10.0 DL1 -18.53 dE -20.0 -30 C 40.0 -50 f Center 2.40000 GHz Span 100.0 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 1.067 ms (8001 pts) FUNCTION VALUE MKR MODE TRC SCL FUNCTION FUNCTION WIDTH 1.472 dBm -29.743 dBm -43.559 dBm 2.414 587 5 GHz N N N 1 2 3 4 5 6 7 8 9 10 2.400 000 0 GHz 2.390 000 0 GHz -41.076 dBm STATUS



Page 115 of 322



Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



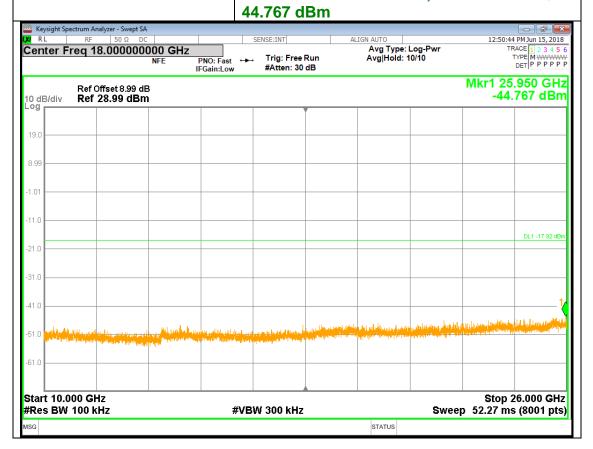
Start 30 MHz

#Res BW 100 kHz

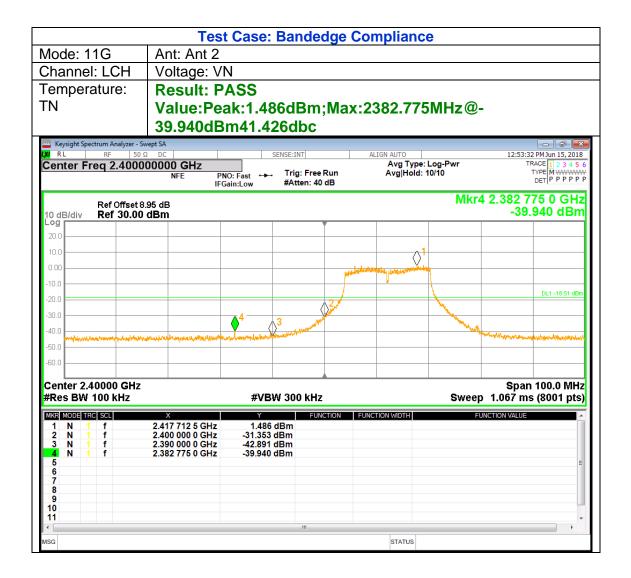
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 1 Channel: LCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3789.936MHz@-47.156 dBm 12:50:34 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.789 9 GHz Ref Offset 8.99 dB Ref 28.99 dBm -47.156 dBm 10 dB/div Log 8.99 -31 f

#VBW 300 kHz











Test Case: Unwanted Emissions In Non-restricted Frequency Bands

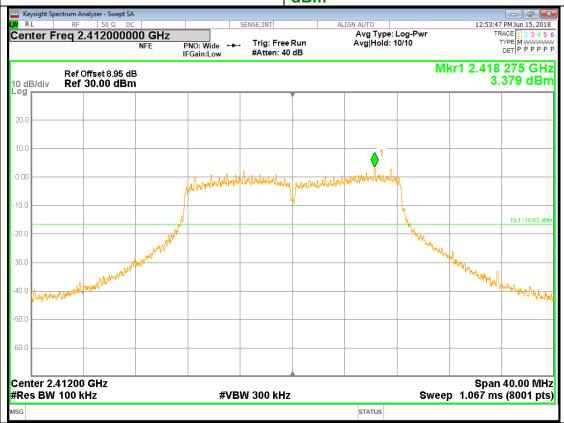
Mode: 11G Ant: Ant 2

Channel: LCH Voltage: VN

Temperature: TN Result: PASS

Value:Pref:2418.275MHz@3.379

dBm



Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

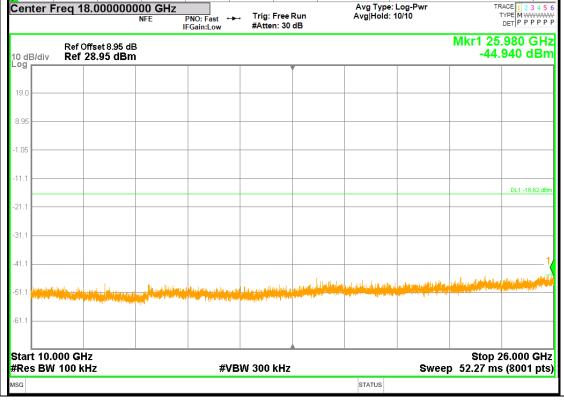
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: LCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3727.624MHz@-47.777 dBm 12:53:58 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.727 6 GHz Ref Offset 8.95 dB Ref 28.95 dBm -47.777 dBm 10 dB/div Log 8.95 1.05 DL1 -16.62 dB -31

#VBW 300 kHz



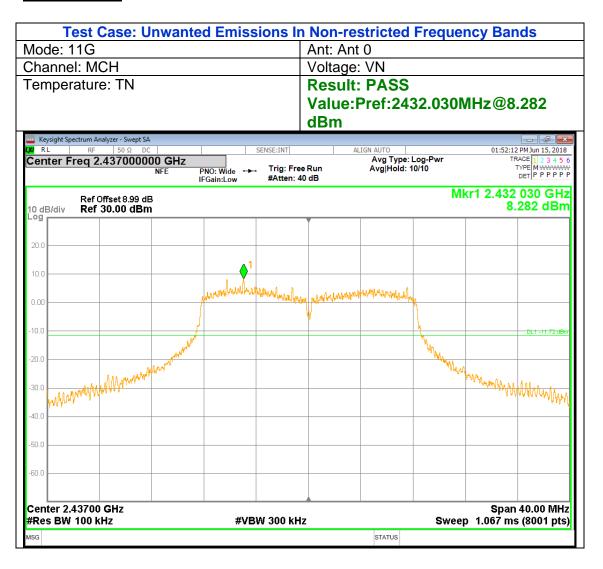
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: LCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25980.000MHz@-44.940 dBm 12:54:07 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6

TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.980 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.940 dBm





Middle Channel



Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



-31 f

Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 0 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;2105.006MHz@-37.644 dBm 01:52:24 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 2.105 0 GHz Ref Offset 8.99 dB Ref 28.99 dBm -37.644 dBm 10 dB/div Log 8.99

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 0 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25728.000MHz@-43.359 dBm 01:52:34 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.728 GHz Ref Offset 8.99 dB Ref 28.99 dBm -43.359 dBm 10 dB/div Log 8.99 -31 f

#VBW 300 kHz



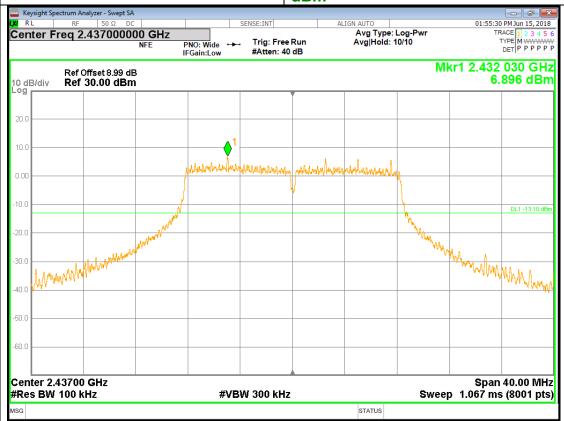
Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11G Ant: Ant 1
Channel: MCH Voltage: VN

Temperature: TN Result: PASS

Value:Pref:2432.030MHz@6.896

dBm



Sweep 32.53 ms (8001 pts)

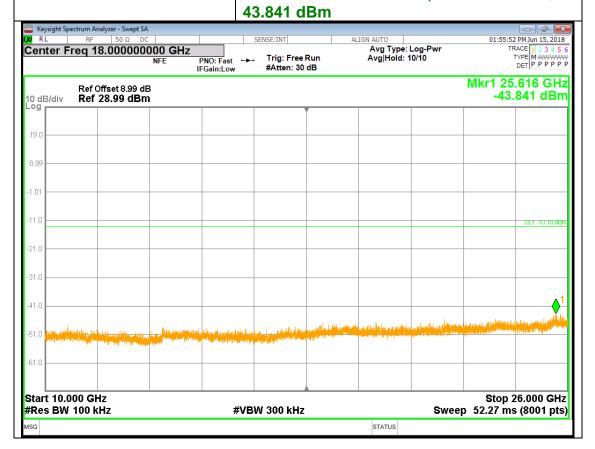


#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 1 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3860.973MHz@-46.277 dBm 01:55:42 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.861 0 GHz Ref Offset 8.99 dB Ref 28.99 dBm -46.277 dBm 10 dB/div Log 8.99 -31 f Start 30 MHz Stop 10.000 GHz

#VBW 300 kHz







Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2432.010MHz@5.801 01:58:50 PM Jun 15, 2018 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Center Freg 2.437000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run PNO: Wide IFGain:Low #Atten: 40 dB Mkr1 2.432 010 GHz Ref Offset 8.95 dB Ref 30.00 dBm 5.801 dBm 10 dB/div Log DL1 -14.20 dB Many Many Many Sound Center 2.43700 GHz Span 40.00 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 1.067 ms (8001 pts)

Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



-31

-51

Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3890.883MHz@-47.175 dBm 01:59:01 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.890 9 GHz Ref Offset 8.95 dB Ref 28.95 dBm -47.175 dBm 10 dB/div Log 8.95 1.05

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



-31

Start 10.000 GHz

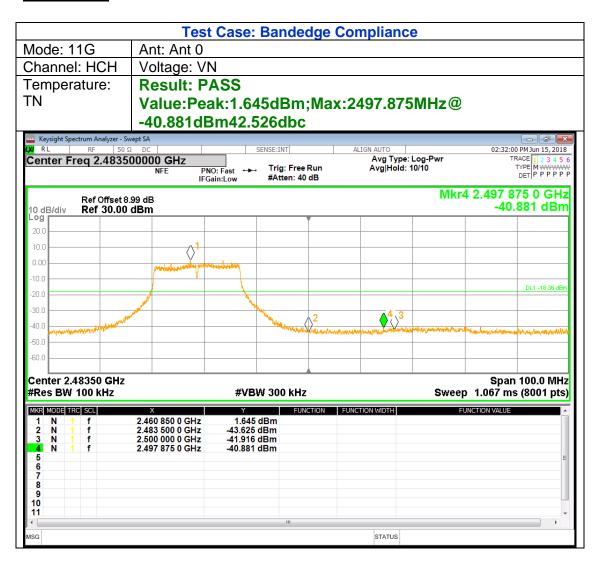
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25568.000MHz@-44.125 dBm 01:59:11 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.568 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.125 dBm 10 dB/div Log 8.95 1.05

#VBW 300 kHz



High Channel





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

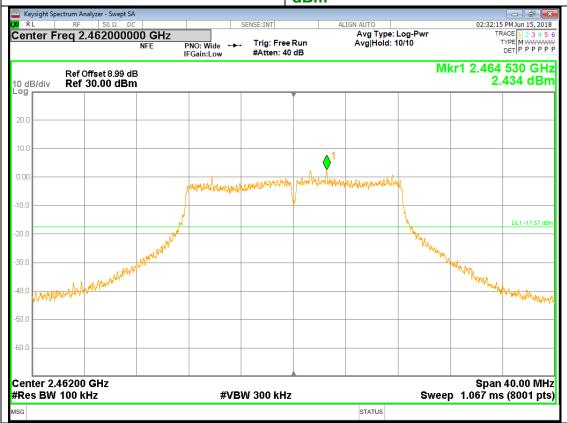
Mode: 11G Ant: Ant 0

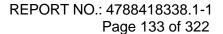
Channel: HCH Voltage: VN

Temperature: TN Result: PASS

Value:Pref:2464.530MHz@2.434

dBm





Sweep 32.53 ms (8001 pts)



#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 0 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;2112.484MHz@-42.624 dBm 02:32:27 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 2.112 5 GHz Ref Offset 8.99 dB Ref 28.99 dBm -42.624 dBm 10 dB/div Log 8.99 -31 f Start 30 MHz Stop 10.000 GHz

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



-31 f

Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 0 Voltage: VN Channel: HCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;23780.000MHz@-44.428 dBm 02:32:36 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 23.780 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.428 dBm 10 dB/div Log 8.99

#VBW 300 kHz



Test Case: Bandedge Compliance Mode: 11G Ant: Ant 1 Voltage: VN Channel: HCH Temperature: **Result: PASS** TN Value:Peak:2.366dBm;Max:2483.563MHz@-41.530dBm43.896dbc 02:35:22 PM Jun 15, 2018 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Center Freg 2.483500000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run PNO: Fast IFGain:Low #Atten: 40 dB Mkr4 2.483 562 5 GHz Ref Offset 8.99 dB -41.530 dBm Ref 30.00 dBm 10 dB/div 10.0 0.00 DL1 -17.63 dBr 20.0 30.0 40.0 -50 f Center 2.48350 GHz Span 100.0 MHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 1.067 ms (8001 pts) FUNCTION VALUE MKR MODE TRC SCL FUNCTION FUNCTION WIDTH 2.467 100 0 GHz 2.483 500 0 GHz 2.500 000 0 GHz 2.483 562 5 GHz 2.366 dBm -42.419 dBm -43.746 dBm N N N -41.530 dBm 5 6 7 8 9 10 STATUS



Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 1 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2469.530MHz@2.232 dBm 02:35:38 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.462000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Wide IFGain:Low Mkr1 2.469 530 GHz Ref Offset 8.99 dB Ref 30.00 dBm 2.232 dBm 10 dB/div Log 10.0 0.00 han hand what was a said of the said of th -10.0 DL1 -17 77 dF -20.0 -30 C -4n r -60 C Center 2.46200 GHz Span 40.00 MHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 1.067 ms (8001 pts)

Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 1 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3740.086MHz@-47.287 dBm 02:35:50 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.740 1 GHz Ref Offset 8.99 dB Ref 28.99 dBm -47.287 dBm 10 dB/div Log 8.99 -31 f

#VBW 300 kHz



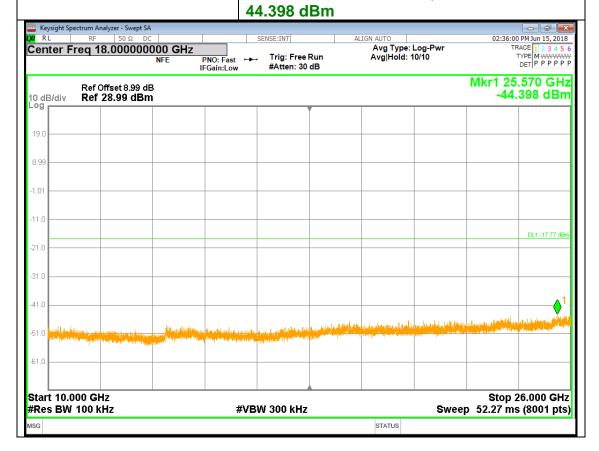
Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11G Ant: Ant 1

Channel: HCH Voltage: VN

Temperature: TN Result: PASS

Value:Puw:10000~26000;25570.000MHz@-





Test Case: Bandedge Compliance Mode: 11G Ant: Ant 2 Channel: HCH Voltage: VN Temperature: Result: PASS Value:Peak:2.287dBm;Max:2496.65MHz@ TN -40.815dBm 38.528dbc 02:38:46 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold:>10/10 Center Freq 2.483500000 GHz TRACE 1 2 3 4 5 6
TYPE MWWWWW
DET PPPPP Trig: Free Run PNO: Fast #Atten: 40 dB Mkr4 2.496 650 0 GHz Ref Offset 8.95 dB Ref 30.00 dBm -40.815 dBm 20.0 10.0 DL1 -17.71 dBr 20.0 -30.0 4 3 -40.0 -50.0 -60 C Center 2.48350 GHz Span 100.0 MHz #Res BW 100 kHz Sweep 1.067 ms (8001 pts) **#VBW 300 kHz** FUNCTION FUNCTION WIDTH 2.464 587 5 GHz 2.483 500 0 GHz 2.287 dBm -43.615 dBm -42.347 dBm 2.500 000 0 GHz 2.496 650 0 GHz -40.815 dBm 5 6 7 8 9 10 STATUS

Span 40.00 MHz

Sweep 1.067 ms (8001 pts)



-4n r

-60 C

Center 2.46200 GHz

#Res BW 100 kHz

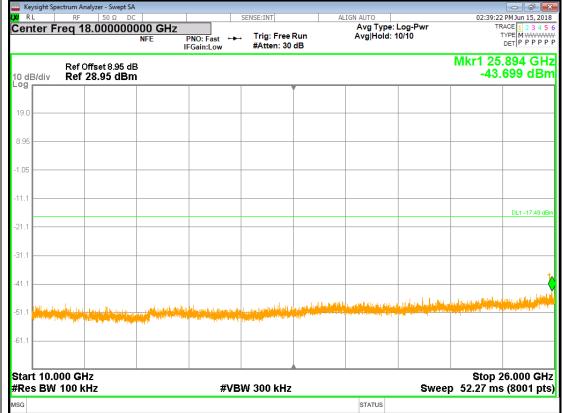
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2469.525MHz@2.507 dBm Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.462000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Wide IFGain:Low Mkr1 2.469 525 GHz 2.507 dBm Ref Offset 8.95 dB Ref 30.00 dBm 10 dB/div Log 10.0 0.00 motorio strafest respect france from a some second of the -10.0 DL1 -17.49 dE -20.0 -30 C

#VBW 300 kHz



Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11G Ant: Ant 2 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;3854.741MHz@-45.869 dBm SENSE:INT 02:39:11 PM Jun 15, 2018 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P Center Freq 5.015000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low Mkr2 3.854 7 GHz Ref Offset 8.95 dB Ref 28.95 dBm 10 dB/div Log -45.869 dBm DL1 -17.49 dE -51. Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 32.53 ms (8001 pts) STATUS

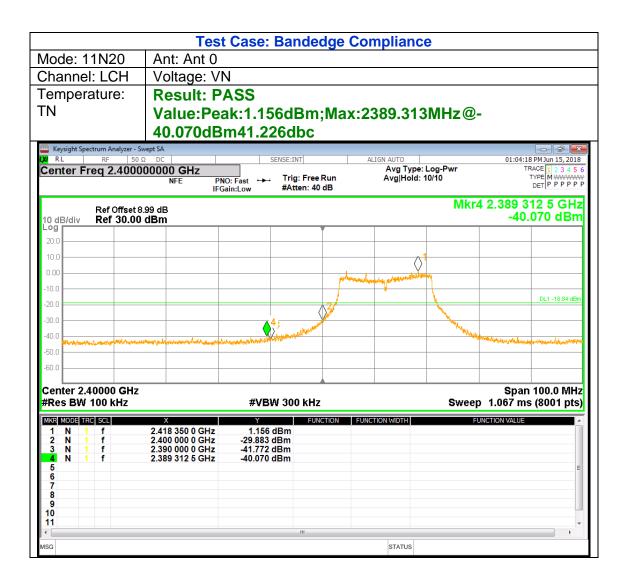






7.5.6. 802.11n20 MIMO MODE

Low Channel

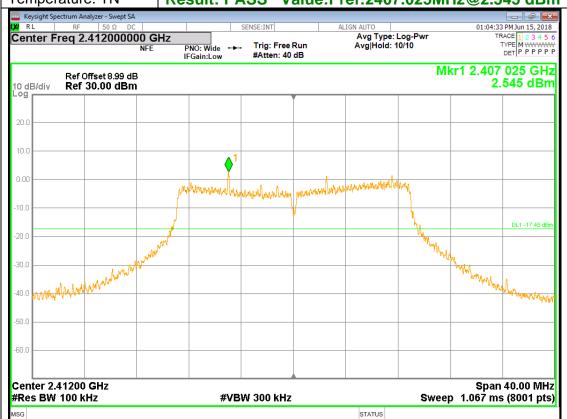


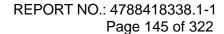


Test Case: Unwanted Emissions In Non-restricted Frequency Bands
Mode: 11N20 Ant: Ant 0

Channel: LCH Voltage: VN

Temperature: TN Result: PASS Value: Pref: 2407.025MHz@2.545 dBm





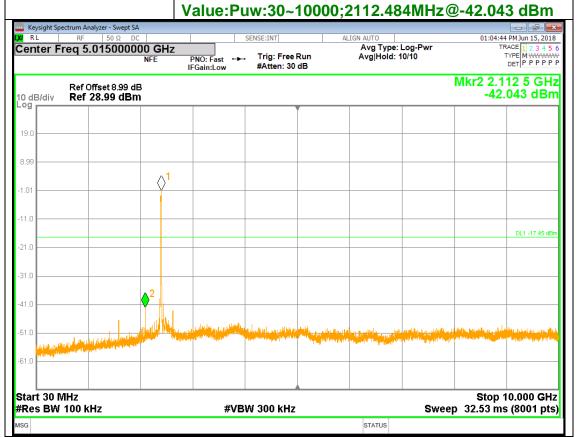


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N20 Ant: Ant 0

Channel: LCH Voltage: VN

Temperature: TN Result: PASS



Sweep 52.27 ms (8001 pts)



#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25622.000MHz@-44.094 dBm 01:04:54 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.622 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.094 dBm 10 dB/div Log 8.99 -31 f Start 10.000 GHz Stop 26.000 GHz

#VBW 300 kHz



Test Case: Bandedge Compliance Ant: Ant 1 Mode: 11N20 Voltage: VN Channel: LCH Temperature: **Result: PASS** ΤN Value:Peak:0.787dBm;Max:2375.638MHz@-40.300dBm41.087dbc 01:07:39 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.400000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr4 2.375 637 5 GHz Ref Offset 8.99 dB -40.300 dBm 10 dB/div Log Ref 30.00 dBm 20.0 10.0 -20.0 -30 C 40.0 -50 f Center 2.40000 GHz Span 100.0 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 1.067 ms (8001 pts) FUNCTION VALUE MKR MODE TRC SCL FUNCTION FUNCTION WIDTH 0.787 dBm -30.740 dBm -43.302 dBm 2.407 087 5 GHz N N N 1 2 3 4 5 6 7 8 9 10 2.400 000 0 GHz 2.390 000 0 GHz 2.375 637 5 GHz -40.300 dBm STATUS

Span 40.00 MHz

Sweep 1.067 ms (8001 pts)

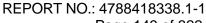


Center 2.41200 GHz

#Res BW 100 kHz

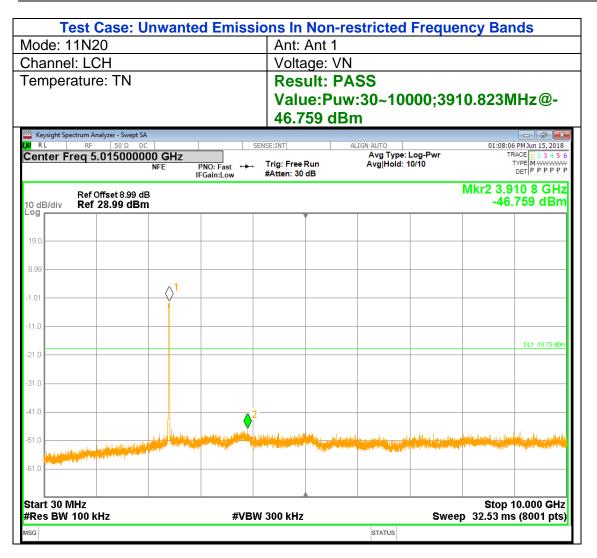
Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 1 Channel: LCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2417.005MHz@1.253 dBm Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.412000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Wide IFGain:Low Mkr1 2.417 005 GHz Ref Offset 8.99 dB Ref 30.00 dBm 1.253 dBm 10 dB/div Log 10.0 0.00 worden war brown when have been well and the second -10.0 DL1 -18.75 dE -20.0 -30 C -4n r .50 C -60 C

#VBW 300 kHz





Page 149 of 322



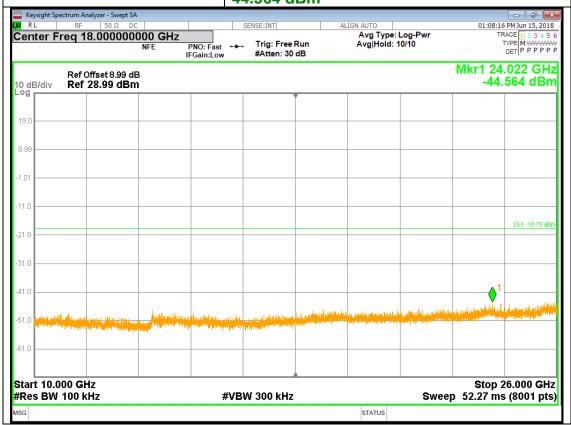


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

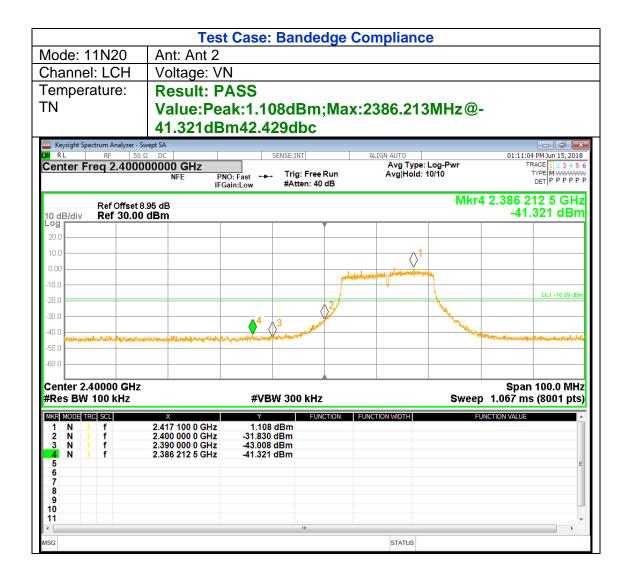
Mode: 11N20 Ant: Ant 1

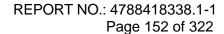
Channel: LCH Voltage: VN

Temperature: TN Result: PASS
Value:Puw:10000~26000;24022.000MHz@-44.564 dBm









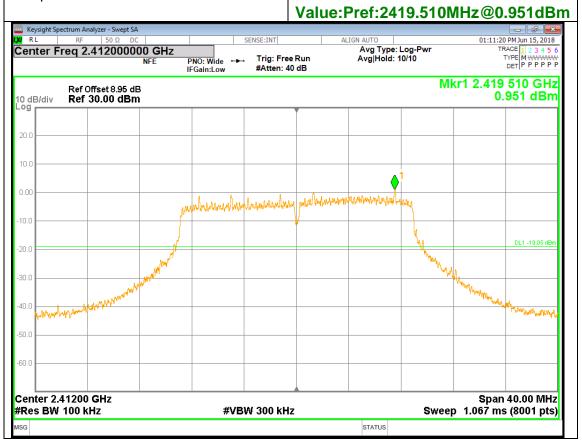


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11G Ant: Ant 2

Channel: LCH Voltage: VN

Temperature: TN Result: PASS





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N20

Ant: Ant 2

Channel: LCH

Voltage: VN

Temperature: TN

Result: PASS

Value: Puw: 30~10000; 3887.144MHz@-47.453 dBm

Keysight Spectrum Analyzer - Swept SA

Result: PASS

Value: Puw: 30~10000; 3887.144MHz@-47.453 dBm

Avg Type: Log-Pwr

Avg



Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

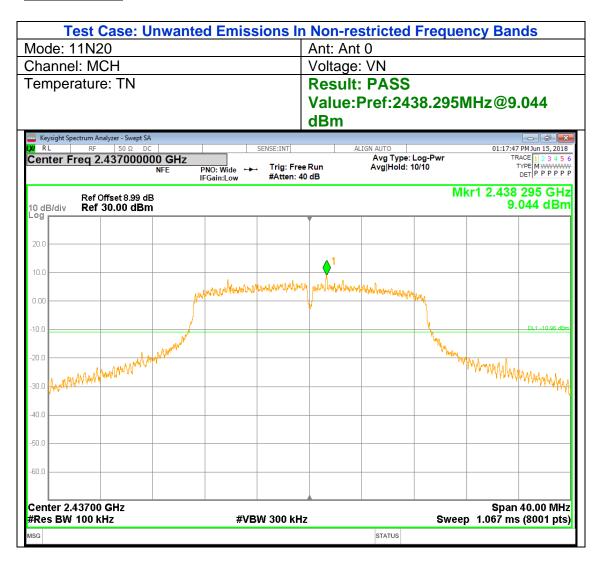
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 2 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25610.000MHz @-44.038 dBm 01:11:41 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.610 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.038 dBm 10 dB/div Log 8.95 1.05 DL1 -19.05 dl -31

#VBW 300 kHz



Middle Channel



Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;2305.653MHz@-37.859 dBm 01:17:59 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 2.305 7 GHz Ref Offset 8.99 dB Ref 28.99 dBm -37.859 dBm 10 dB/div Log 8.99 DL1 -10.96 dB -31 f

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Voltage: VN Channel: MCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;25926.000MHz@-44.706 dBm 01:18:08 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.926 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.706 dBm 10 dB/div Log 8.99 DL1 -10.96 dB -31 f

#VBW 300 kHz

Span 40.00 MHz

Sweep 1.067 ms (8001 pts)



-30 O

-50 C

-60 C

Center 2.43700 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 1 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Pref:2432.005MHz@7.318 dBm Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.437000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Wide IFGain:Low Mkr1 2.432 005 GHz Ref Offset 8.99 dB Ref 30.00 dBm 7.318 dBm 10 dB/div Log 10.0 marapamalapandananahapand 0.00 -20.0 Marmonton

#VBW 300 kHz



Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N20

Ant: Ant 1

Channel: MCH

Voltage: VN

Temperature: TN

Result: PASS

Value:Puw:30~10000;2112.484MHz@47.114 dBm

Keysight Spectrum Analyzer - Swept SA

VI RL RF 50 Q DC SENSE:INT ALIGN AUTO 01:21:17 PM Jun 15, 2018

Center Freq 5.015000000 GHz

NFE PNO: Fast Trig: Free Run

Avg Type: Log-Pwr
Avg Hold: 10/10

Trig: Free Run

Avg Type: Log-Pwr
Avg Hold: 10/10

Trig: Free Run

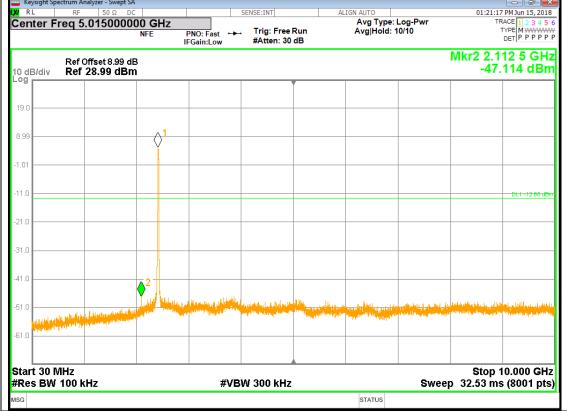
Avg Type: Log-Pwr
Avg Hold: 10/10

Trig: Free Run

Avg Type: Log-Pwr
Avg Hold: 10/10

Trig: Free Run

Avg Type: Log-Pwr
Avg Hold: 10/10



Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 1 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25992.000MHz@-44.584 dBm 01:21:27 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.992 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.584 dBm 10 dB/div Log 8.99 -31 f

#VBW 300 kHz



Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 2 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2432.015MHz@8.445 01:24:25 PM Jun 15, 2018 Center Freg 2.437000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 TRACE Trig: Free Run PNO: Wide IFGain:Low #Atten: 40 dB Mkr1 2.432 015 GHz Ref Offset 8.95 dB Ref 30.00 dBm 8.445 dBm 10 dB/div Log MANANTAN WANTAN MANUTANANA MANANANA MANANANA MANANANA MANANANA MANANANA MANANANA MANANA -60 C Center 2.43700 GHz Span 40.00 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 1.067 ms (8001 pts)



Test Case: Unwanted Emissions In Non-restricted Frequency Bands

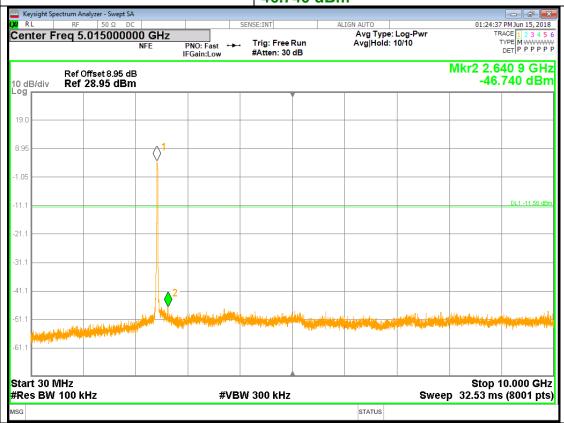
Mode: 11N20 Ant: Ant 2

Channel: MCH Voltage: VN

Temperature: TN Result: PASS

Value:Puw:30~10000;2640.894MHz@-

46.740 dBm



Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



-31

Start 10.000 GHz

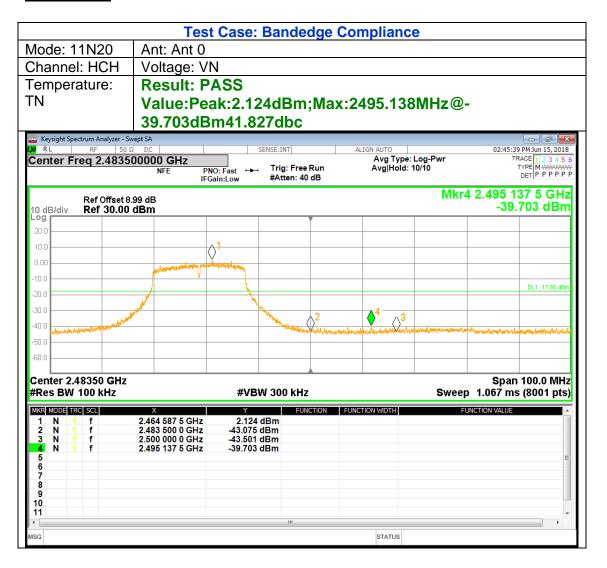
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 2 Channel: MCH Voltage: VN **Result: PASS** Temperature: TN Value:Puw:10000~26000;25744.000MHz@-44.755 dBm 01:24:47 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.744 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.755 dBm 10 dB/div Log 8.95 1.05

#VBW 300 kHz



High Channel

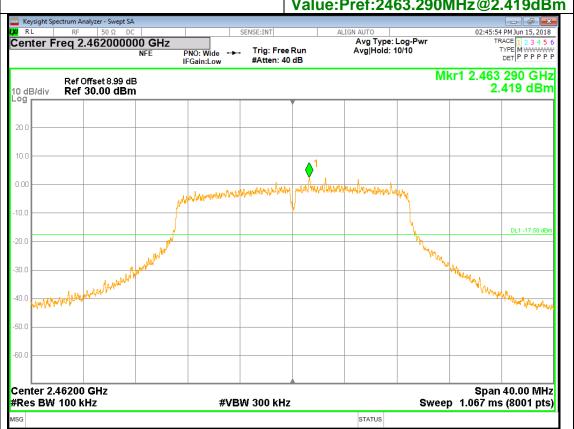




Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Voltage: VN Channel: HCH

Result: PASS Temperature: TN

Value:Pref:2463.290MHz@2.419dBm



Sweep 32.53 ms (8001 pts)



#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:30~10000;2112.484MHz@-42.610 dBm 02:46:05 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 2.112 5 GHz Ref Offset 8.99 dB Ref 28.99 dBm -42.610 dBm 10 dB/div Log 8.99 -31 f Start 30 MHz Stop 10.000 GHz

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



-31 f

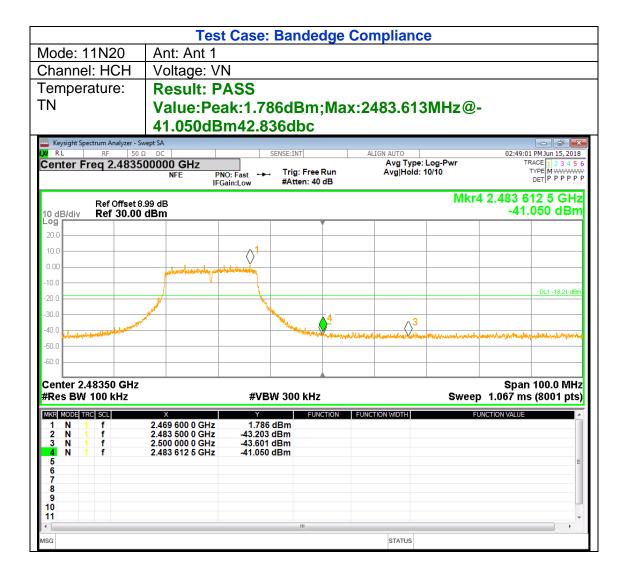
Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N20 Ant: Ant 0 Voltage: VN Channel: HCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;25740.000MHz@ -44.555 dBm 02:46:15 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.740 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.555 dBm 10 dB/div Log 8.99

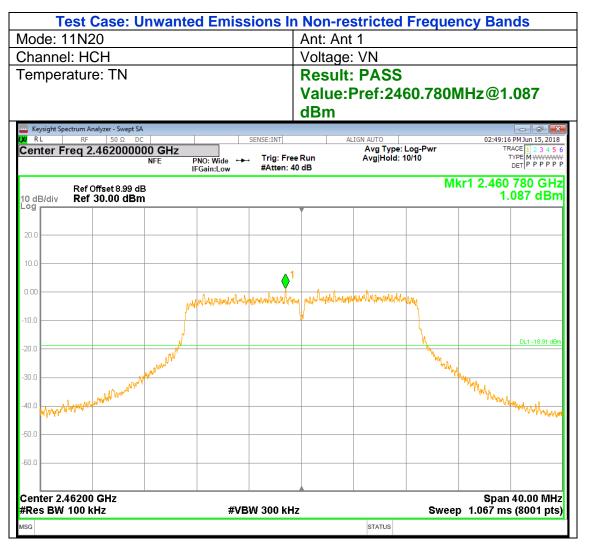
#VBW 300 kHz







Page 169 of 322





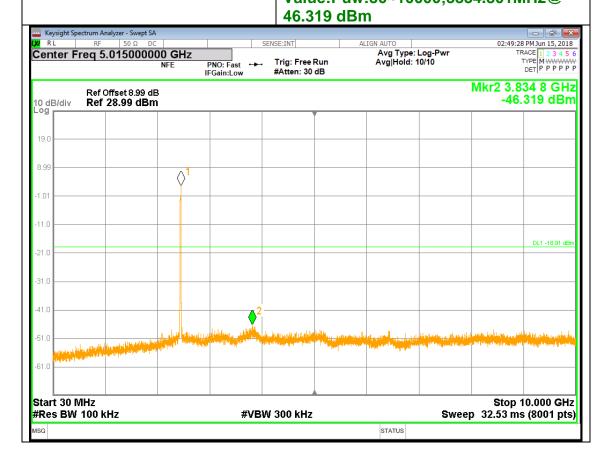
Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N20 Ant: Ant 1

Channel: HCH Voltage: VN

Temperature: TN Result: PASS

Value: Puw: 30~10000; 3834.801 MHz@-





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N20

Ant: Ant 1

Channel: HCH

Voltage: VN

Temperature: TN

Result: PASS

Value: Puw: 10000~26000; 25668.000MHz@

-43.851 dBm

Keysight Spectrum Analyzer - Swept SA

Value: Puw: 10000~26000; 25668.000MHz@

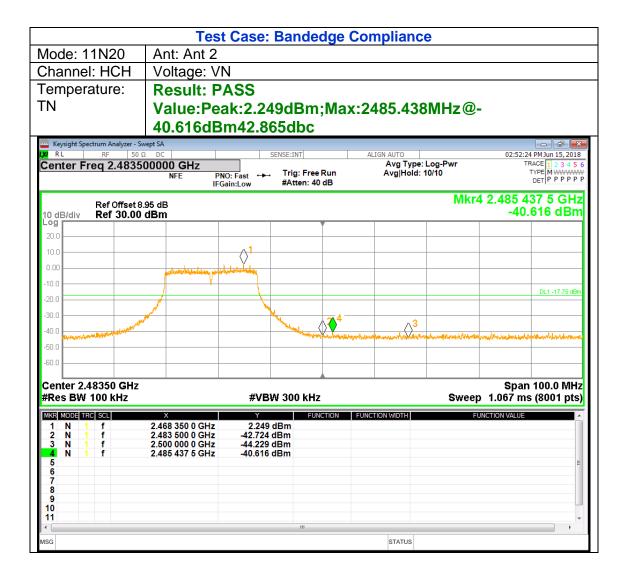
Avg Type: Log-Pwr
Avg|Hold: 10/10

Avg Type: Log-Pwr
Avg|Hold: 10/10

Trig: Free Run
#Atten: 30 dB







Span 40.00 MHz

Sweep 1.067 ms (8001 pts)



-4n r

-60 C

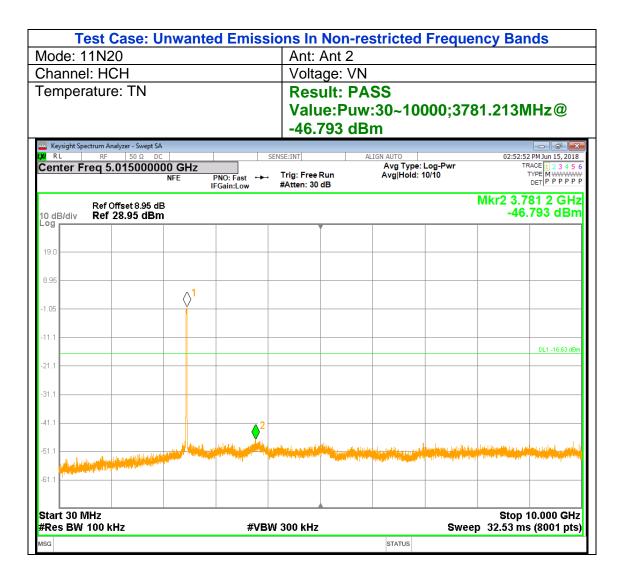
Center 2.46200 GHz

#Res BW 100 kHz

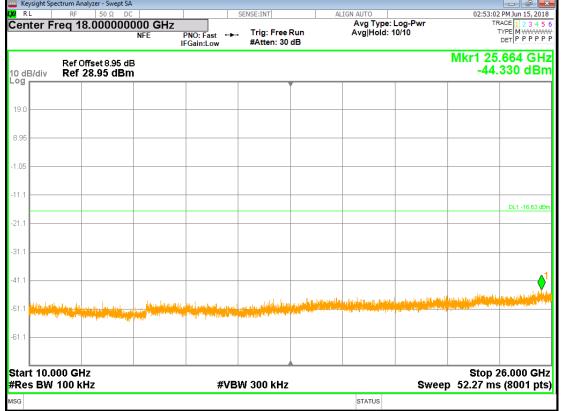
Page 173 of 322 **Test Case: Unwanted Emissions In Non-restricted Frequency Bands** Mode: 11N20 Ant: Ant 2 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2467.020MHz@3.371 dBm Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.462000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Wide IFGain:Low Mkr1 2.467 020 GHz Ref Offset 8.95 dB Ref 30.00 dBm 3.371 dBm 10 dB/div Log 10.0 0.00 months of the state of the stat DL1 -16.63 dl -20.0 -30 C

#VBW 300 kHz





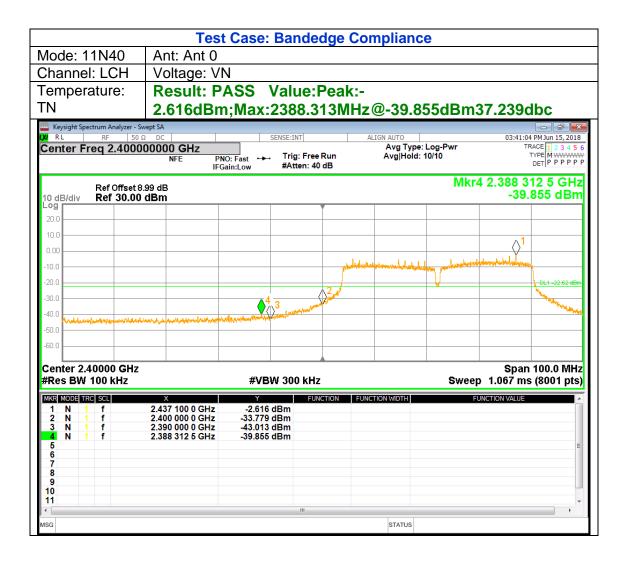






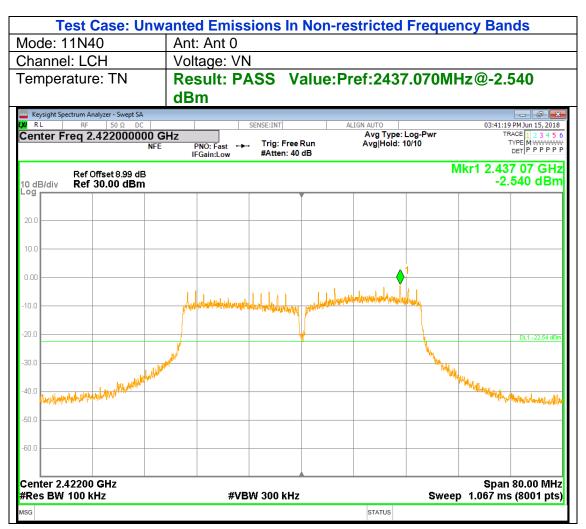
7.5.7. 802.11n40 MIMO MODE

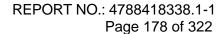
Low Channel





Page 177 of 322





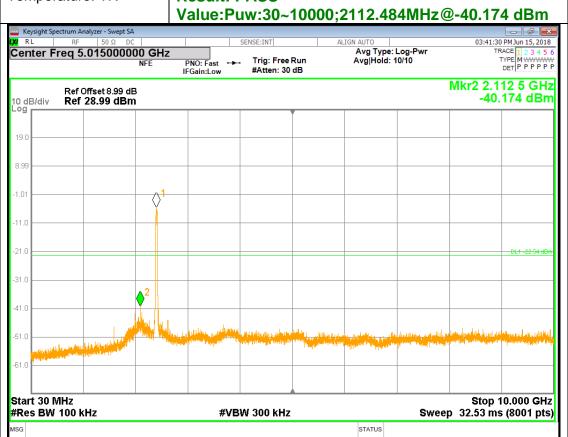


Test Case: Unwarted Emissions In Non-restricted Frequency Bands

Mode: 11N40 Ant: Ant 0

Channel: LCH Voltage: VN

Temperature: TN Result: PASS



Sweep 52.27 ms (8001 pts)



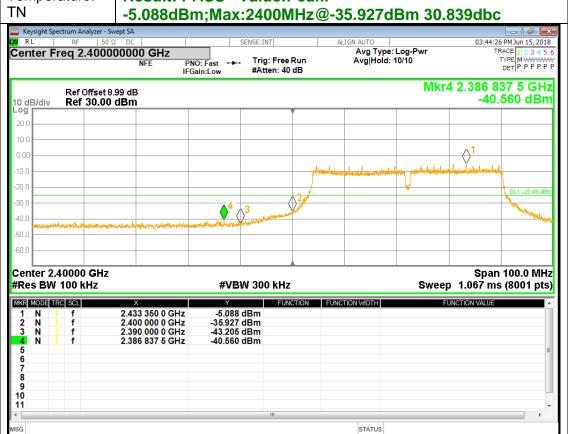
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 0 Voltage: VN Channel: LCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;25666.000MHz@-44.480 dBm 03:41:39 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.666 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.480 dBm 10 dB/div Log 8.99 -31 f Start 10.000 GHz Stop 26.000 GHz

#VBW 300 kHz



Mode: 11N40 Ant: Ant 1
Channel: LCH Voltage: VN
Temperature: Result: PASS Value:Peak:





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

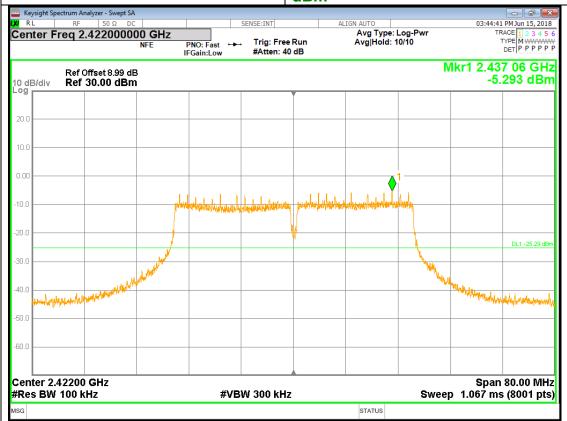
Mode: 11N40 Ant: Ant 1

Channel: LCH Voltage: VN

Temperature: TN Result: PASS

Value:Pref:2437.060MHz@-5.293

dBm





Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 1 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:30~10000;2288.205MHz@-46.828 dBm 03:44:52 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 2.288 2 GHz Ref Offset 8.99 dB Ref 28.99 dBm -46.828 dBm 10 dB/div Log

Sweep 52.27 ms (8001 pts)

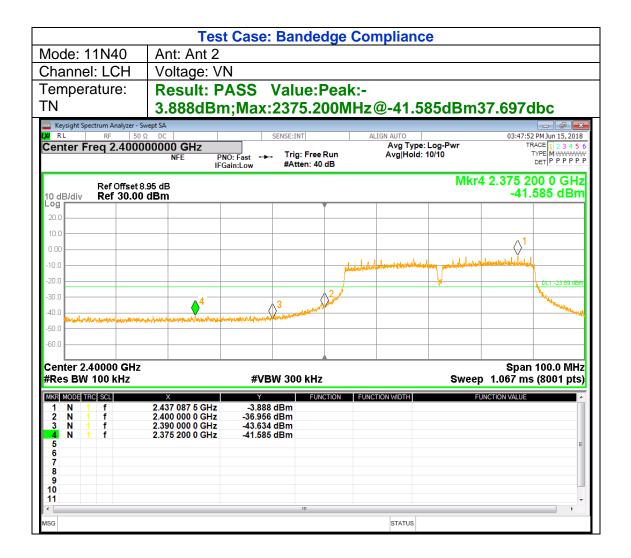


#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 1 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25702.000MHz@-44.714 dBm 03:45:02 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.702 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.714 dBm 10 dB/div Log 8.99 -31 f Start 10.000 GHz Stop 26.000 GHz

#VBW 300 kHz





Span 80.00 MHz

Sweep 1.067 ms (8001 pts)



Center 2.42200 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Pref:2437.070MHz@-4.488 dBm 03:48:07 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.422000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run Mkr1 2.437 07 GHz Ref Offset 8.95 dB Ref 30.00 dBm -4.488 dBm 10 dB/div Log 10.0 0.00 -10.0 -20.0 -30 C -4n r hard and the property of the second of the -50 C -60 C

#VBW 300 kHz

Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: LCH Temperature: TN **Result: PASS** Value:Puw:30~10000;3806.138MHz@-47.312 dBm 03:48:18 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.806 1 GHz Ref Offset 8.95 dB Ref 28.95 dBm -47.312 dBm 10 dB/div Log 8.95 1.05 -31 1

#VBW 300 kHz

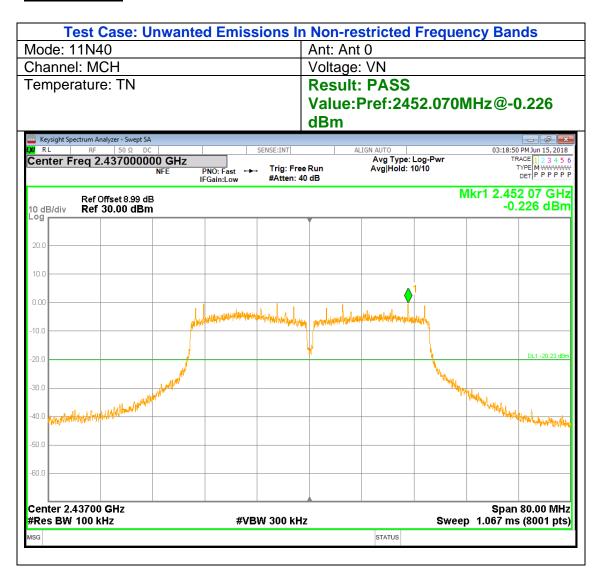


Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: LCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;25662.000MHz@-44.477 dBm 03:48:28 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.662 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.477 dBm 10 dB/div Log





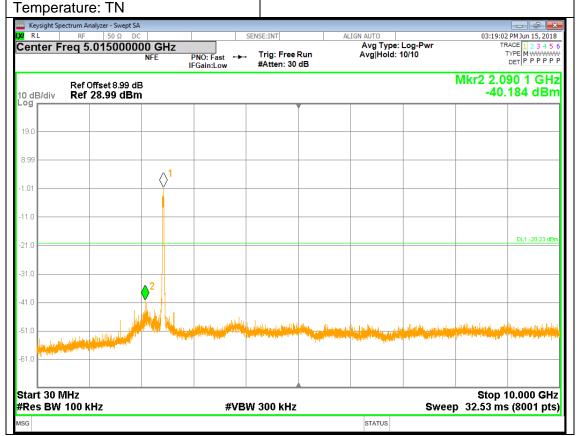
Middle Channel





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N40
Channel: MCH
Result: PASS
Value:Puw:30~10000;2090.051MHz@40.184 dBm



Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



-31 f

Start 10.000 GHz

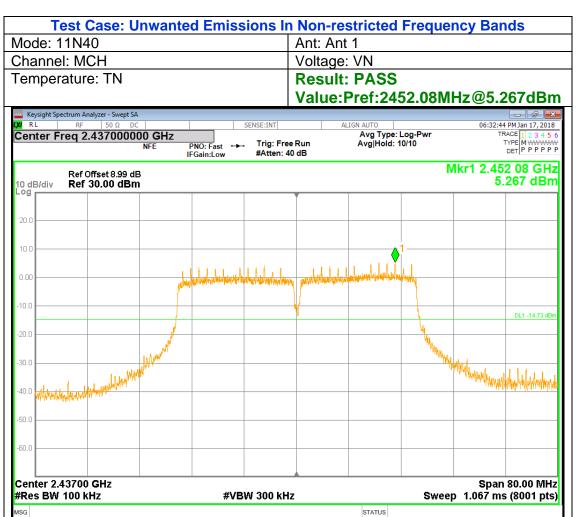
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 0 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25520.000MHz@-44.204 dBm 03:19:12 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.520 GHz Ref Offset 8.99 dB Ref 28.99 dBm -44.204 dBm 10 dB/div Log 8.99

#VBW 300 kHz



Page 191 of 322



Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 1 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Puw:30~10000;3848.510MHz@-46.718 dBm 06:32:55 PM Jan 17, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 3.848 5 GHz Ref Offset 8.99 dB Ref 28.99 dBm -46.718 dBm 10 dB/div Log 8.99 DL1 -14.73 dB -31 f

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



Start 10.000 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 1 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25718.000MHz@ -43.764 dBm 03:22:29 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.718 GHz Ref Offset 8.99 dB Ref 28.99 dBm -43.764 dBm 10 dB/div Log 8.99 DL1 -20.94 dB -31 f

#VBW 300 kHz



Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Channel: MCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2428.340MHz@-0.944 03:25:28 PM Jun 15, 2018 TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Center Freg 2.437000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 Trig: Free Run PNO: Fast IFGain:Low #Atten: 40 dB Mkr1 2.428 34 GHz Ref Offset 8.95 dB Ref 30.00 dBm -0.944 dBm 10 dB/div Log 30.0 40.0 -60 C Center 2.43700 GHz Span 80.00 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 1.067 ms (8001 pts) STATUS

Stop 10.000 GHz

Sweep 32.53 ms (8001 pts)



Start 30 MHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: MCH Temperature: TN **Result: PASS** Value:Puw:30~10000;8819.801MHz@-46.427 dBm 03:25:39 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr2 8.819 8 GHz Ref Offset 8.95 dB Ref 28.95 dBm -46.427 dBm 10 dB/div Log 8.95 1.05 -31

#VBW 300 kHz

Stop 26.000 GHz

Sweep 52.27 ms (8001 pts)



1.05

-31

Start 10.000 GHz

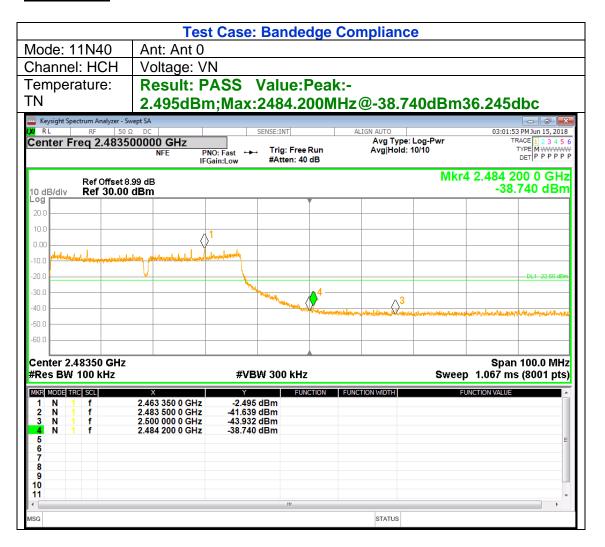
#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: MCH **Result: PASS** Temperature: TN Value:Puw:10000~26000;23756.000MHz@-44.422 dBm 03:25:49 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 23.756 GHz Ref Offset 8.95 dB Ref 28.95 dBm -44.422 dBm 10 dB/div Log 8.95

#VBW 300 kHz



High Channel





Test Case: Unwanted Emissions In Non-restricted Frequency Bands

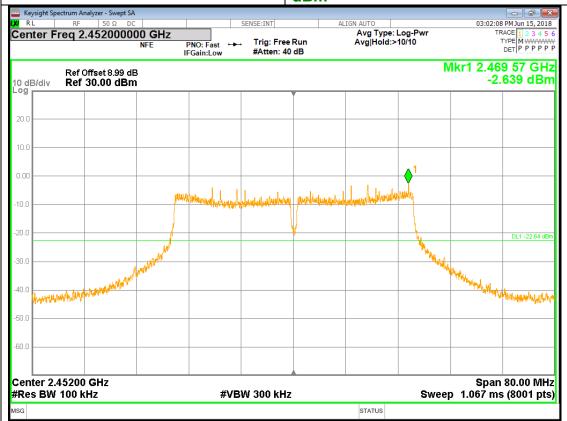
Mode: 11N40 Ant: Ant 0

Channel: HCH Voltage: VN

Temperature: TN Result: PASS

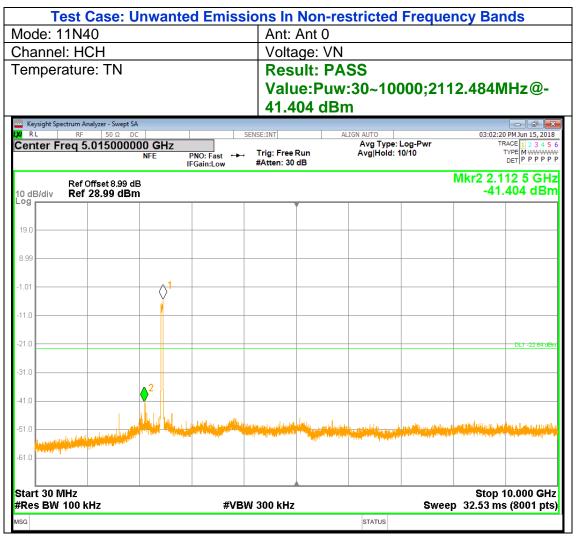
Value:Pref:2469.570MHz@-2.639

dBm





Page 199 of 322





Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 0 Voltage: VN Channel: HCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25982.000MHz@ -43.994 dBm 03:02:30 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.982 GHz Ref Offset 8.99 dB Ref 28.99 dBm -43.994 dBm 10 dB/div Log 8.99 -31 f Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 52.27 ms (8001 pts)



Test Case: Bandedge Compliance Mode: 11N40 Ant: Ant 1 Voltage: VN Channel: HCH Result: PASS Value:Peak:-Temperature: TN 2.951dBm;Max:2483.813MHz@-40.579dBm37.628dbc Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.483500000 GHz TRACE 1 2 3 4 5 6
TYPE MWWWWW
DET PPPPP Trig: Free Run PNO: Fast #Atten: 40 dB Mkr4 2.483 812 5 GHz -40.579 dBm Ref Offset 8.99 dB Ref 30.00 dBm 20.0 10.0 0.00 10.0 -30.0 -40.0 -50.0 -60 C Center 2.48350 GHz Span 100.0 MHz #Res BW 100 kHz Sweep 1.067 ms (8001 pts) **#VBW 300 kHz** FUNCTION FUNCTION WIDTH FUNCTION VALUE -2.951 dBm -42.860 dBm 2.435 837 5 GHz 2.483 500 0 GHz 2.500 000 0 GHz -43.146 dBm -40.579 dBm 5 6 7 8 9 10 STATUS

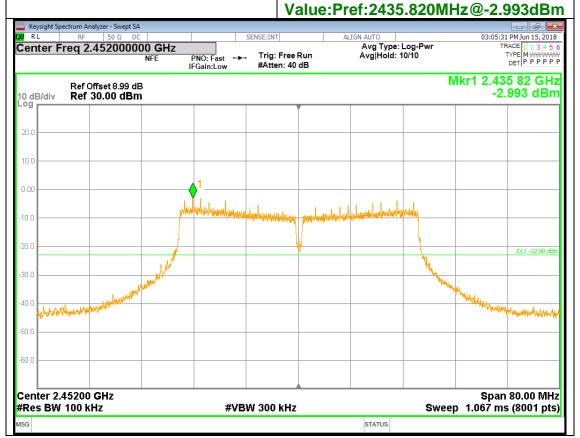


Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N40 Ant: Ant 1

Channel: HCH Voltage: VN

Temperature: TN Result: PASS





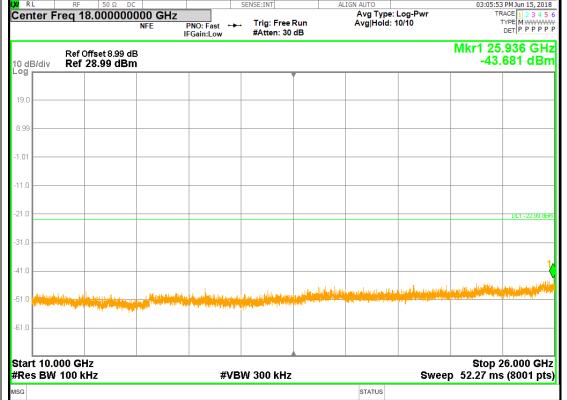
Test Case: Unwanted Emissions In Non-restricted Frequency Bands

Mode: 11N40
Ant: Ant 1
Channel: HCH
Voltage: VN
Temperature: TN
Result: PASS
Value:Puw:30~10000;2288.205MHz@-45.853 dBm

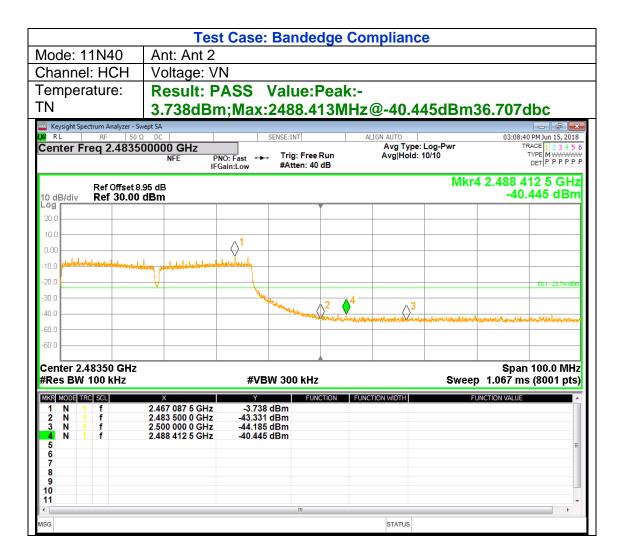




Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 1 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Puw:10000~26000;25936.000MHz@-43.681 dBm 03:05:53 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.936 GHz Ref Offset 8.99 dB Ref 28.99 dBm -43.681 dBm 10 dB/div Log







Span 80.00 MHz

Sweep 1.067 ms (8001 pts)



.50 C

-60 C

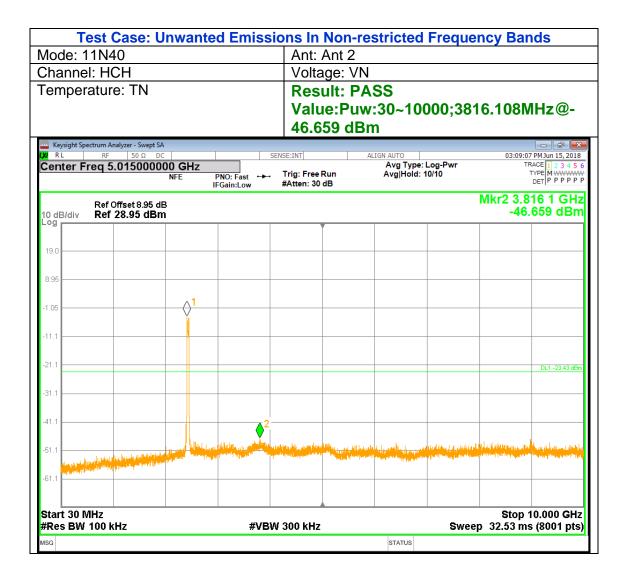
Center 2.45200 GHz

#Res BW 100 kHz

Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Channel: HCH Voltage: VN Temperature: TN **Result: PASS** Value:Pref:2437.060MHz@-3.434 dBm Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 2.452000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run Mkr1 2.437 06 GHz Ref Offset 8.95 dB Ref 30.00 dBm -3.434 dBm 10 dB/div Log 10.0 0.00 -10.0 -20.0 DL1 -23.43 dB -30 C

#VBW 300 kHz







Test Case: Unwanted Emissions In Non-restricted Frequency Bands Mode: 11N40 Ant: Ant 2 Voltage: VN Channel: HCH Temperature: TN **Result: PASS** Value:Puw:10000~26000;25808.000MHz@-43.722 dBm 03:09:17 PM Jun 15, 2018 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 18.000000000 GHz TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P Trig: Free Run PNO: Fast IFGain:Low Mkr1 25.808 GHz Ref Offset 8.95 dB -43.722 dBm 10 dB/div Log Ref 28.95 dBm 8.95 1.05 -31 Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 52.27 ms (8001 pts)

Note: All transmission modes and antennas were tested, but only the worst data was recorded in the report.



8. RADIATED TEST RESULTS

LIMITS

Please refer to FCC §15.205 and §15.209

Please refer to RSS-GEN Clause 8.9

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.



Radiation Disturbance Test Limit for FCC (Above 1G)

Frequency (MHz)	dB(uV/m) (at 3 meters)				
Frequency (Minz)	Peak	Average			
Above 1000	74	54			

Restricted bands of operation

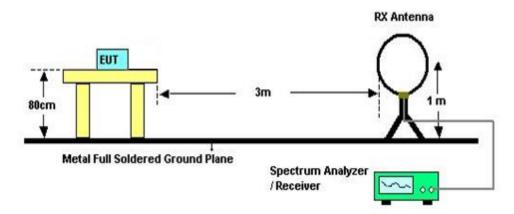
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: 1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. 2 Above 38.6c



TEST SETUP AND PROCEDURE

Below 30MHz

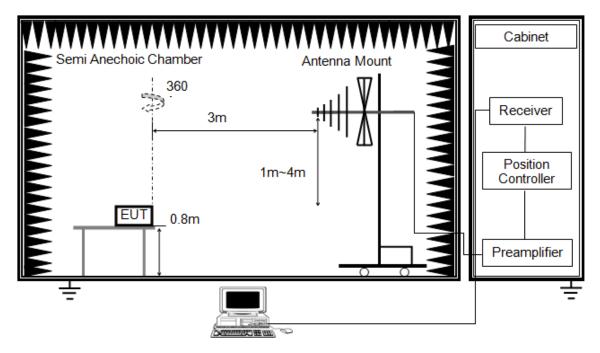


The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 0.8 meter above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- 6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

Below 1G

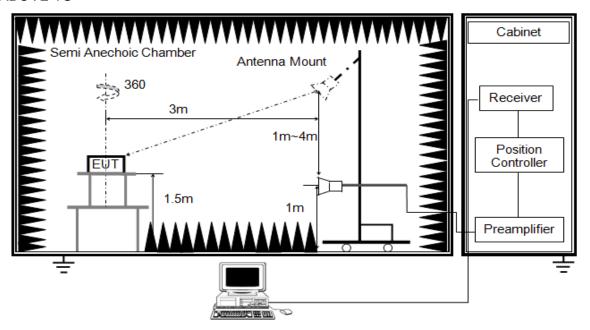


The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 0.8 meter above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- 6. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration)

ABOVE 1G



The setting of the spectrum analyser

RBW	1M
1VBW	PEAK: 3M AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

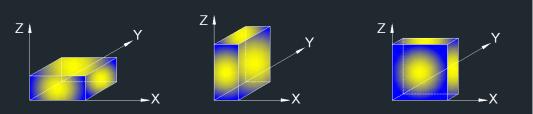
- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 1.5m above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
- 6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector. For the Duty Cycle and Correction Factor please refer to clause 7.1.ON TIME AND DUTY CYCLE. If the EUT is configured to transmit with D \geq 98%, then set VBW \leq RBW / 100, but not less than 10 Hz. If the EUT D is < 98%, then set

VBW ≥ 1 / T.

7. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)



X axis, Y axis, Z axis positions:



Note1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (x axis) data recorded in the report.

Note2:For the radiation test results, SISO & MIMO mode has been tested, the report only shows the worst case data, SISO mode is worse case for 11b, MIMO mode is worst case for 11g & 11n20 & 11n40.

Note3:The 2.4GHz and 5GHz simultaneous transmission modes have been evaluated, the test results have not changed even worse for the independent transmission mode, and no spurious emissions are caused by the simultaneous operation of two devices.

Note4:. The peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band meets the requirement attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc), for the test results, please refer to the 7.5 chapter of the report.

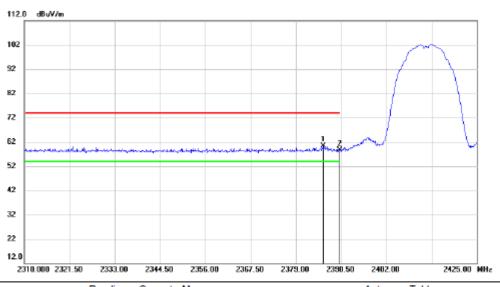


8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b MODE

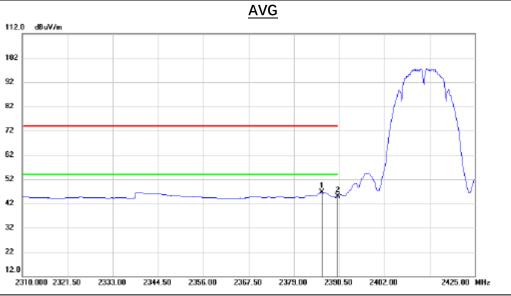
SISO Ant 0 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE (CHANNEL1, HORIZONTAL) Peak



No.	M	k. Freq.			Measure- ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2386.015	27.12	33.17	60.29	74.00	-13.71	peak			
2		2390.000	25.55	33.14	58.69	74.00	-15.31	peak			



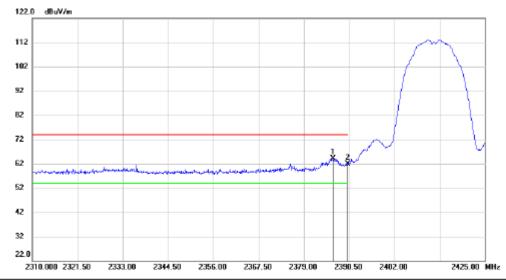


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	* :	2386.130	13.35	33.17	46.52	54.00	-7.48	AVG			
2	:	2390.000	11.76	33.14	44.90	54.00	-9.10	AVG			

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.

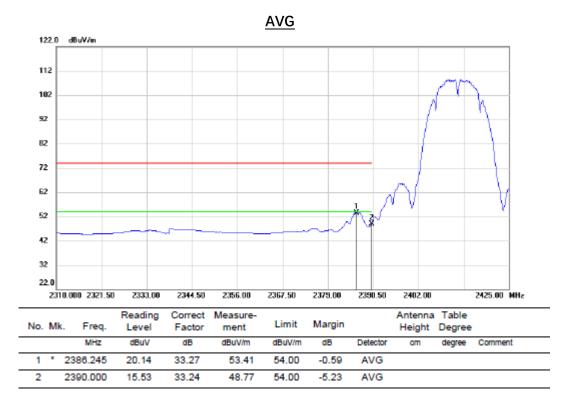


RESTRICTED BANDEDGE (CHANNEL1, VERTICAL) Peak



No.	М	k. F	req.	Reading Level		Measure- ment	Limit	Margin	Antenna Table Height Degree			
		M	lHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2386.	360	30.76	33.27	64.03	74.00	-9.97	peak			
2		2390.	000	28.63	33.24	61.87	74.00	-12.13	peak			





- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.

2500.00 MHz



2310.000 2329.00

2348.00

2367.00

2386.00

RESTRICTED BANDEDGE (CHANNEL6, HORIZONTAL)

Peak 122.0 d8 uV/m 112 102 92 82 72 62 42 32 22.0

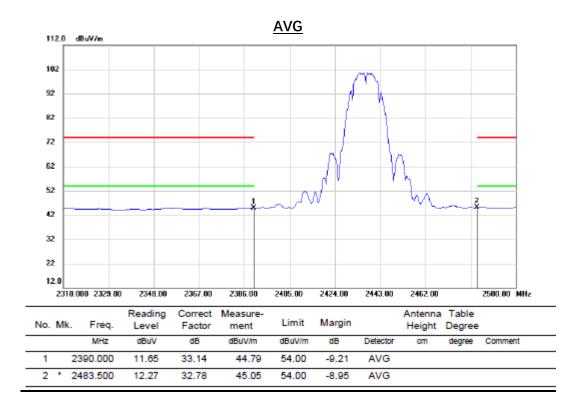
No.	Mi	. Freq.	_	Correct Factor	Measure- ment	Limit	Margin	Antenna 1 Height D			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	×	2390.000	26.00	33.14	59.14	74.00	-14.86	peak			
2		2483.500	26.20	32.78	58.98	74.00	-15.02	peak			

2405.00

2424.00

2443.00

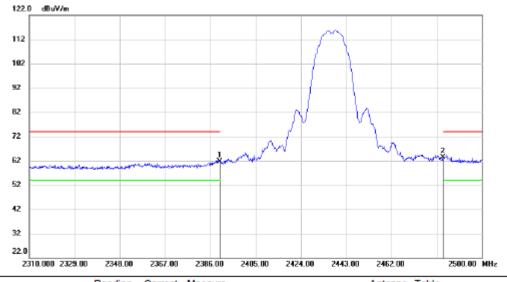
2462.00



- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.

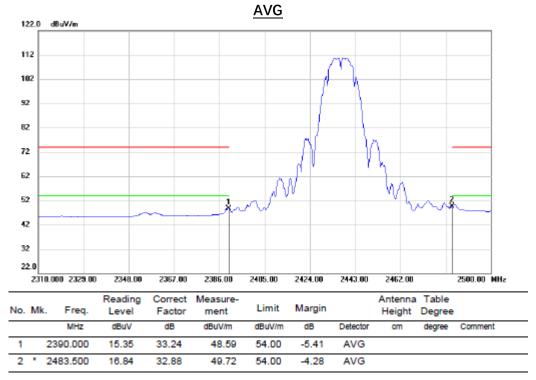


RESTRICTED BANDEDGE (CHANNEL6, VERTICAL) Peak



	No.	Mi	c. Freq.	Reading Level		Measure- ment	Limit	Margin		Antenna Height	Table Degree		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment	
ľ	1		2390.000	28.51	33.24	61.75	74.00	-12.25	peak				
	2	*	2483.500	30.48	32.88	63.36	74.00	-10.64	peak				

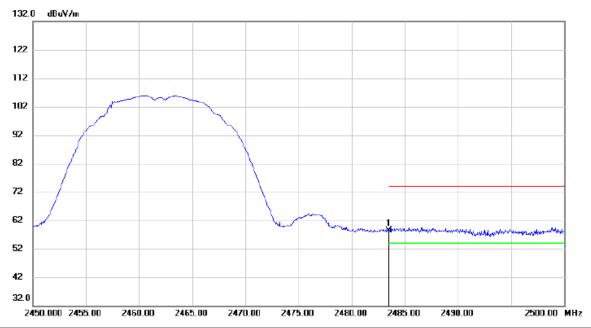




- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.



RESTRICTED BANDEDGE (CHANNEL11, HORIZONTAL) Peak



No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1 * 2	2483.500	25.54	32.88	58.42	74.00	-15.58	peak			