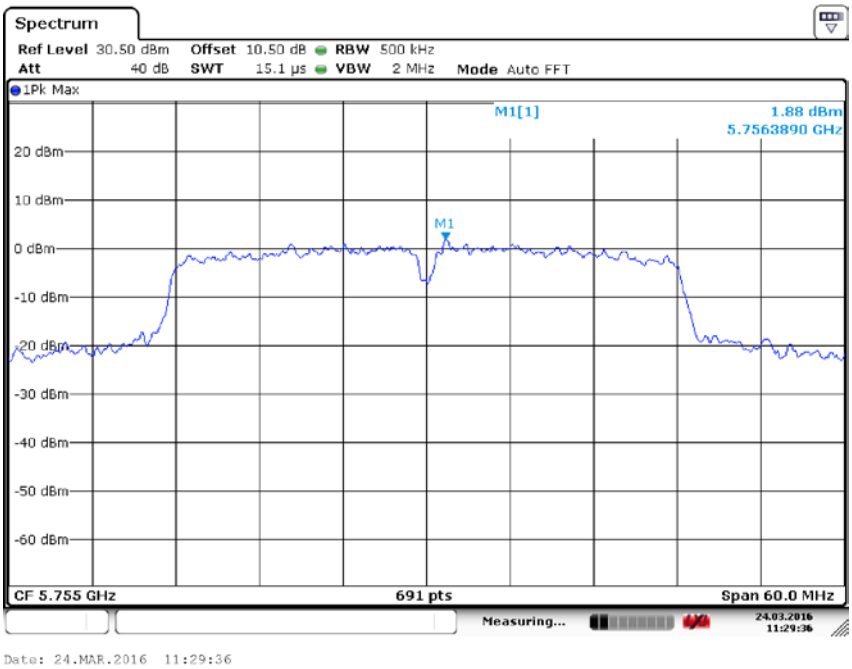
Test Mode: 802.11n (HT40)

Carrier frequency (MHz)	Channel No	Power Density (dBm)
5755	151	1.88
5795	159	0.81



Carrier frequency (MHz): 5755
Channel No.:151
Test Mode: 802.11n (HT40)

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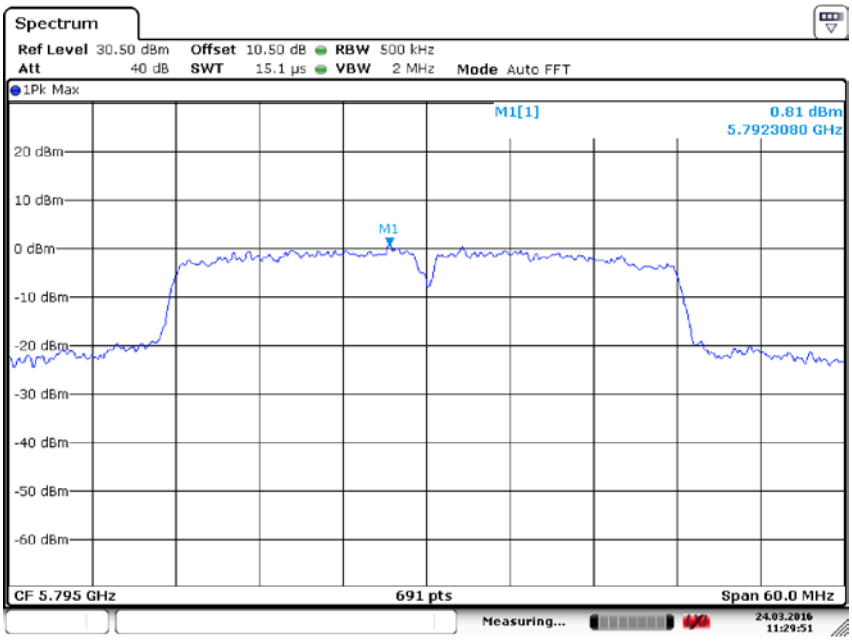

Date: 24.MAR.2016 11:29:51

Carrier frequency (MHz): 5795
Channel No.:159
Test Mode: 802.11n(HT40)

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6.6 Unwanted Conducted Emission Measurement

6.6.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	40%	101.5kPa

6.6.2 Test Description

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle (>98%), at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration.

6.6.3 Test limit

FCC Part 15.407(b)
Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

6.6.4 Test Procedure Used

KDB 789033 D01 v01r03, Section G.

6.6.5 Test Settings

a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 1 MHz.
c) Set the VBW ≥ 3 MHz.
d) Detector = peak.
e) Set span to encompass the spectrum to be examined
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum amplitude level.

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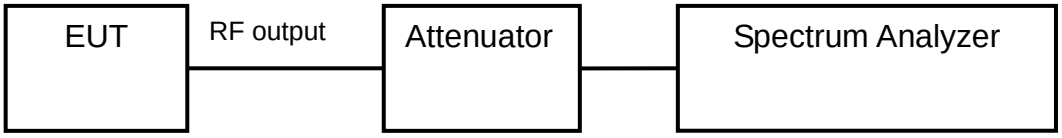
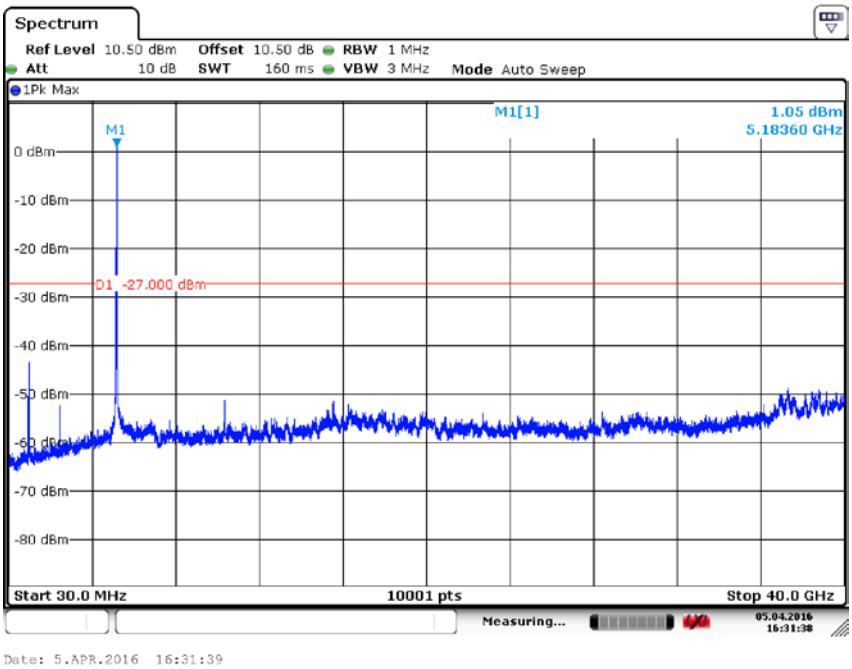
6.6.6 Test Setup



6.4.7 Test result

5150MHz~5250MHz

Test Mode: 802.11a



Carrier frequency (MHz): 5180
Channel No.36
Test Mode: 802.11a

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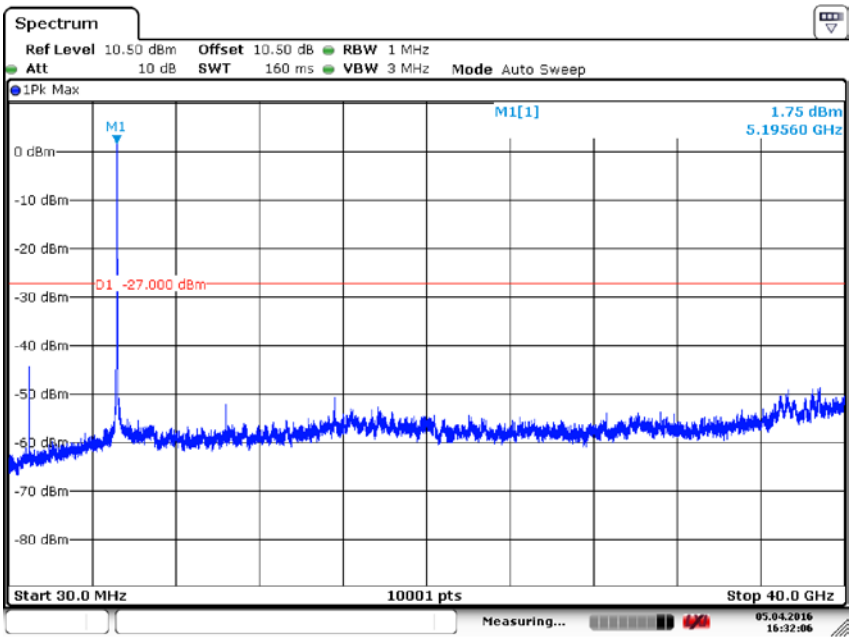
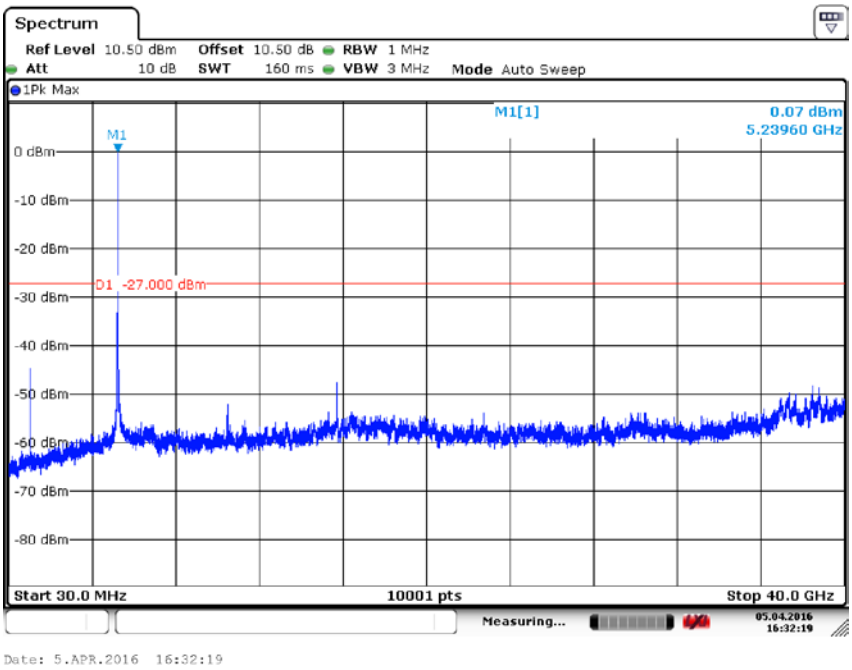


Carrier frequency (MHz): 5200
Channel No.40
Test Mode: 802.11a



Carrier frequency (MHz): 5240
Channel No.48
Test Mode: 802.11a

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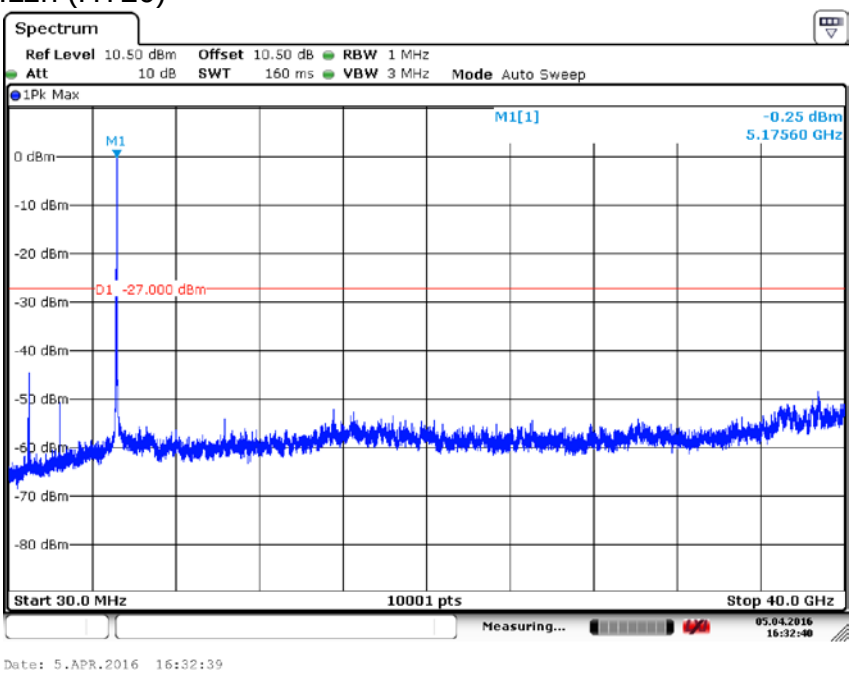
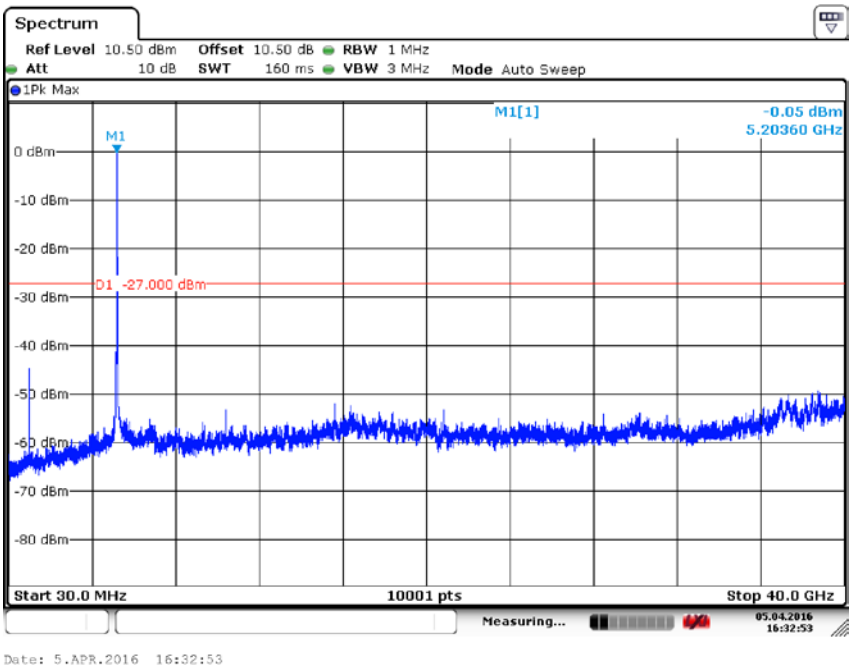
Test Mode: 802.11n (HT20)



Carrier frequency (MHz): 5180
Channel No.:36
Test Mode: 802.11n (HT20)



Carrier frequency (MHz): 5200
Channel No.:40
Test Mode: 802.11n (HT20)

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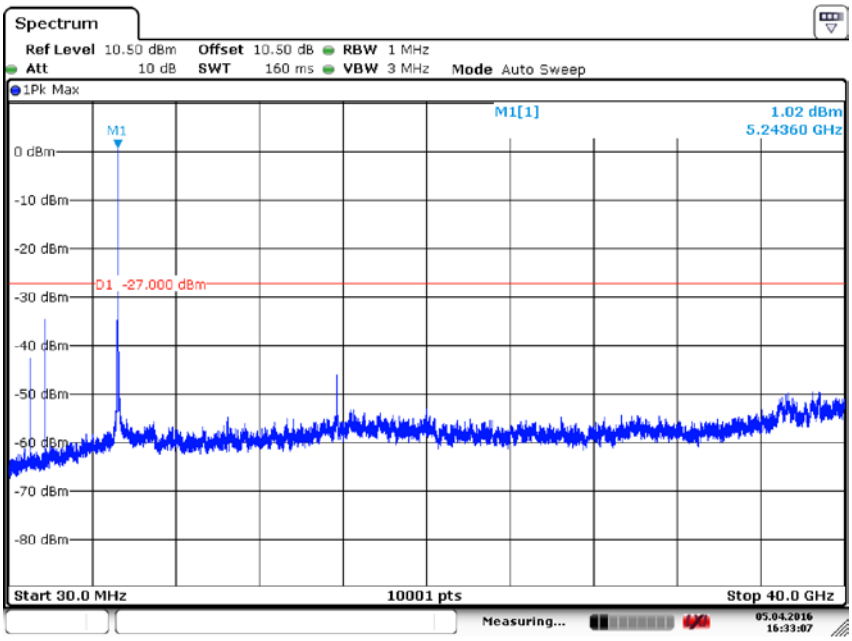
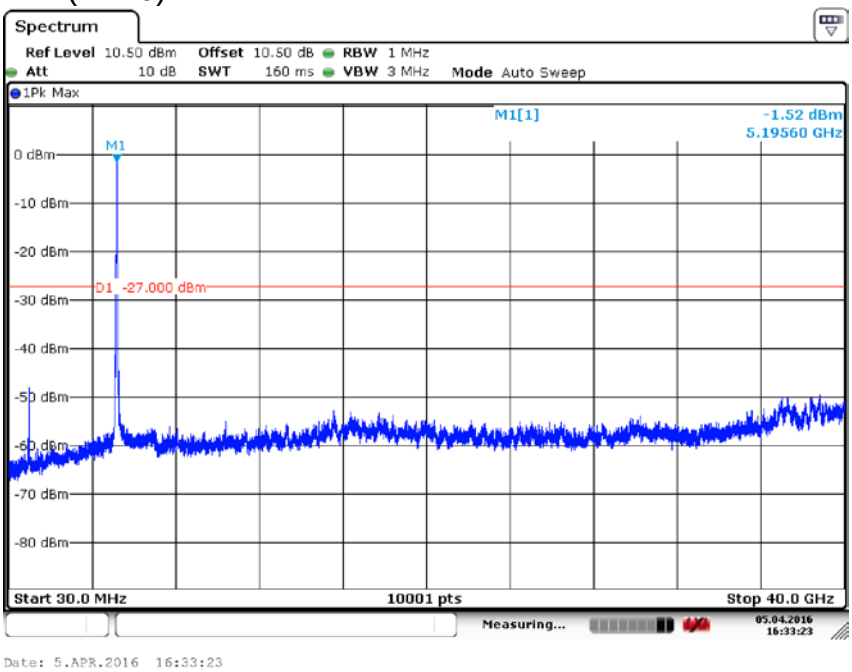


Carrier frequency (MHz): 5240
Channel No.:48
Test Mode: 802.11n (HT20)

Test Mode: 802.11n (HT40)



Carrier frequency (MHz): 5190
Channel No.:38
Test Mode: 802.11n (HT40)

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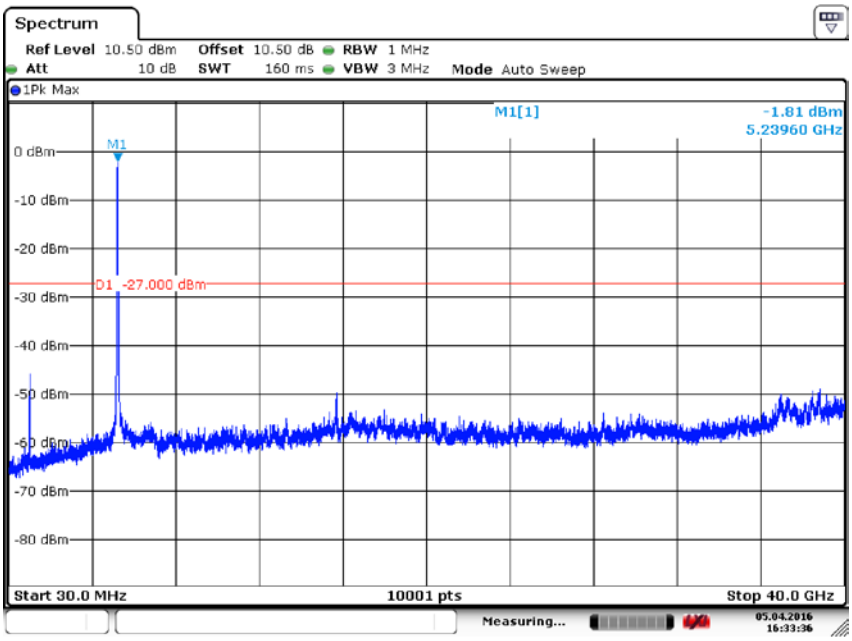

Date: 5.APR.2016 16:33:36

Carrier frequency (MHz): 5230
Channel No.:46
Test Mode: 802.11n(HT40)

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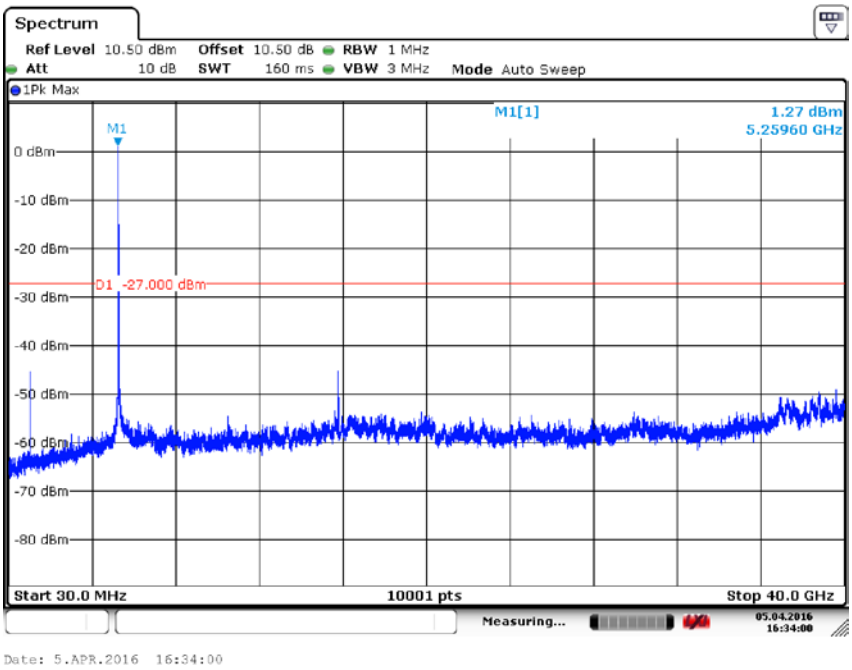
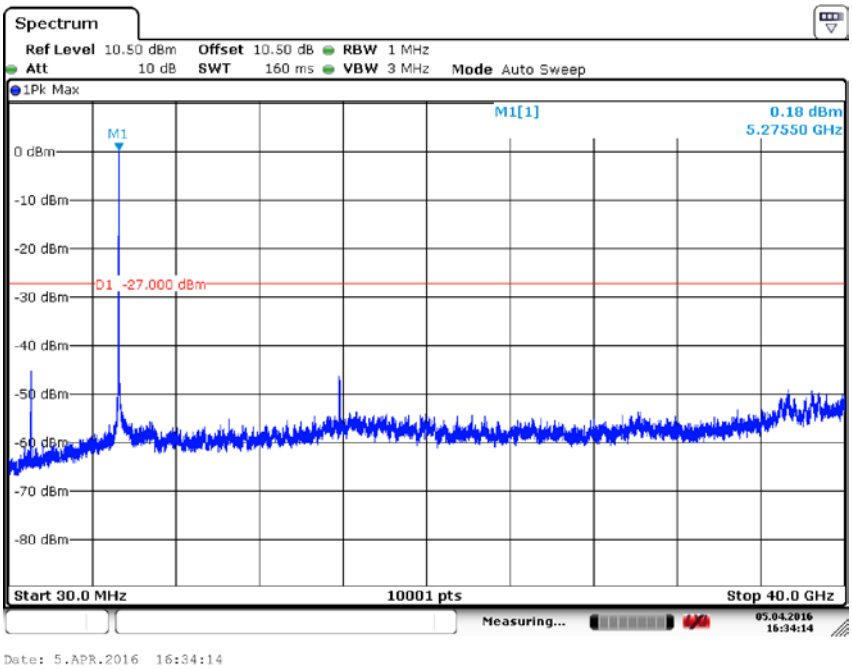
5250MHz~5350MHz
Test Mode: 802.11a



Carrier frequency (MHz): 5260
Channel No.52
Test Mode: 802.11a



Carrier frequency (MHz): 5280
Channel No.56
Test Mode: 802.11a

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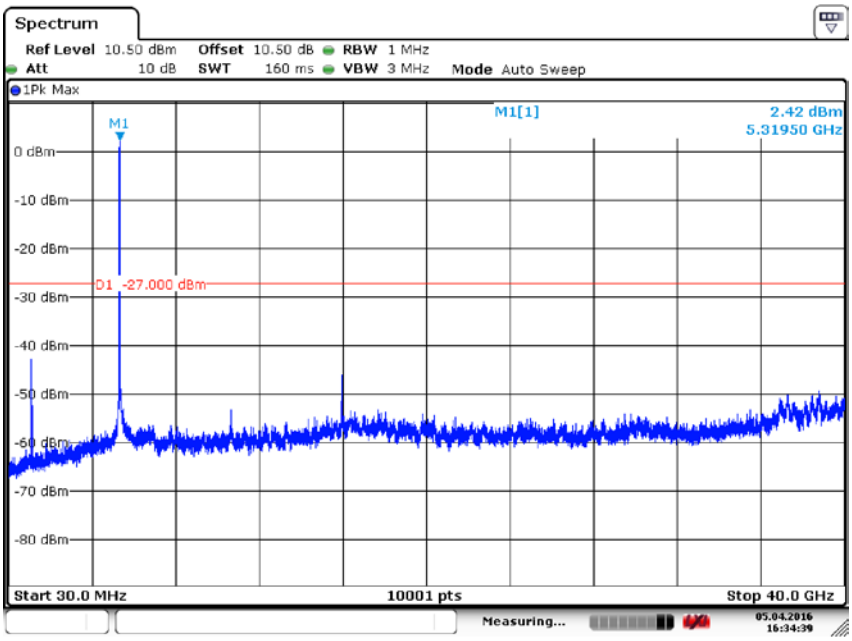
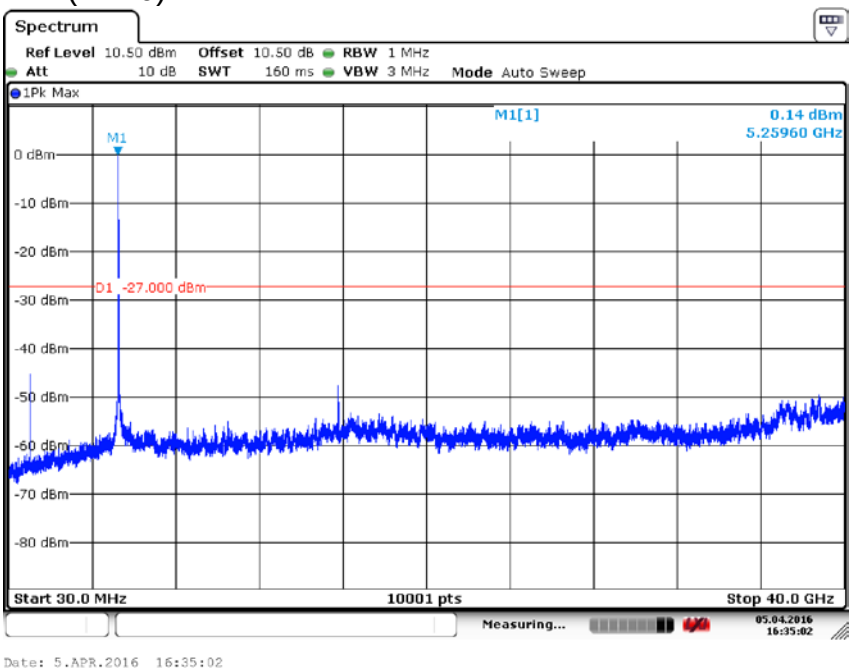


Carrier frequency (MHz): 5320
Channel No.64
Test Mode: 802.11a

Test Mode: 802.11n (HT20)



Carrier frequency (MHz): 5260
Channel No.:52
Test Mode: 802.11n (HT20)

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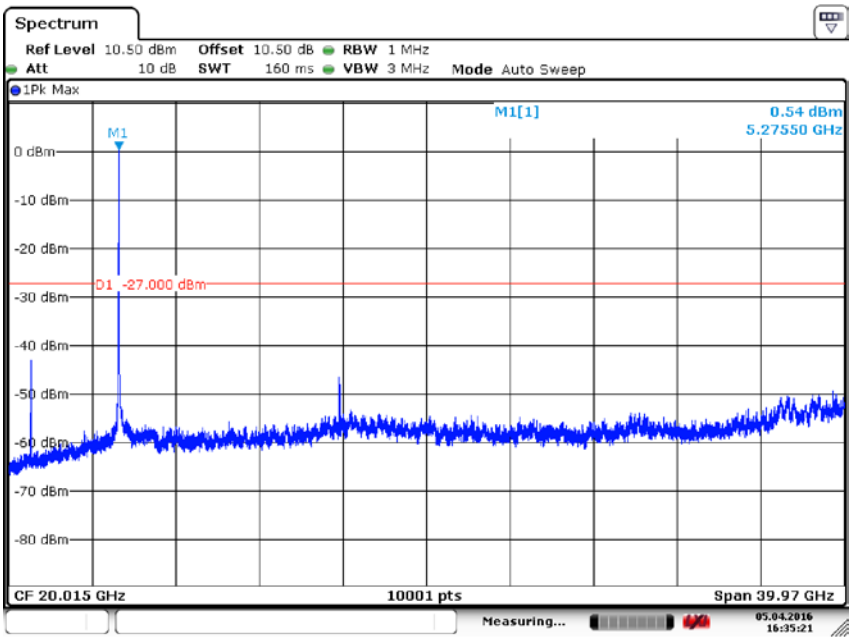
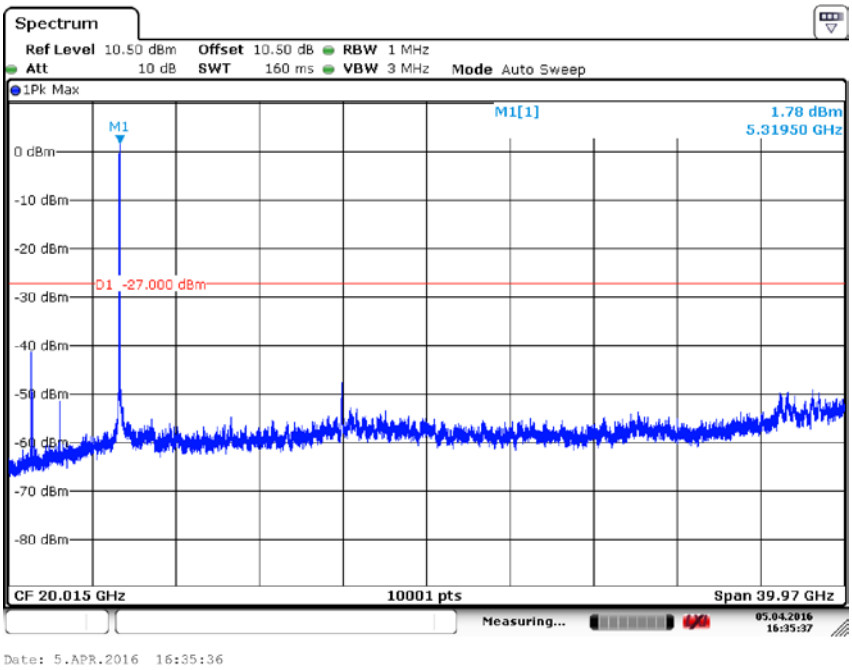


Carrier frequency (MHz): 5280
Channel No.:56
Test Mode: 802.11n (HT20)



Carrier frequency (MHz): 5320
Channel No.:64
Test Mode: 802.11n (HT20)

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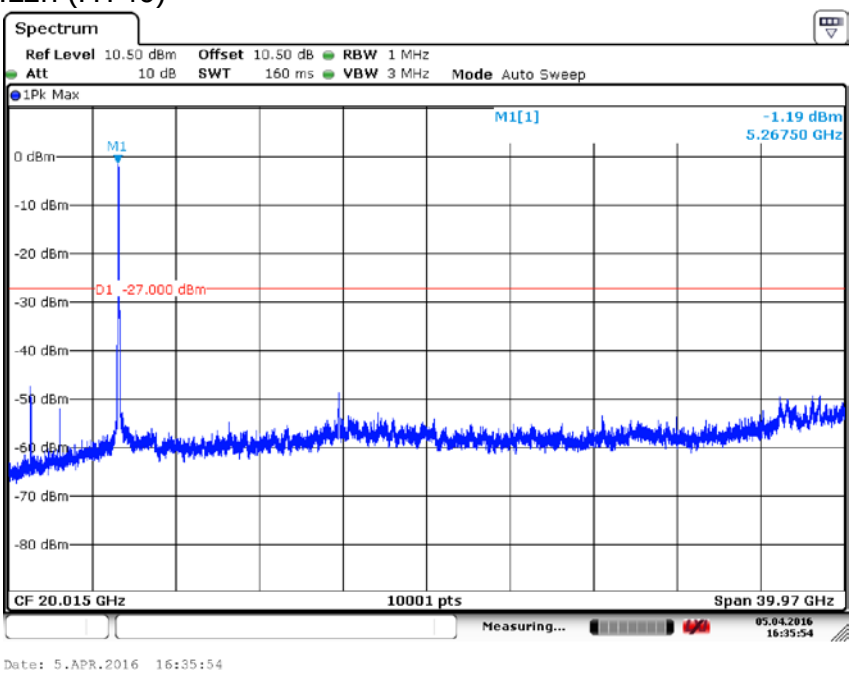
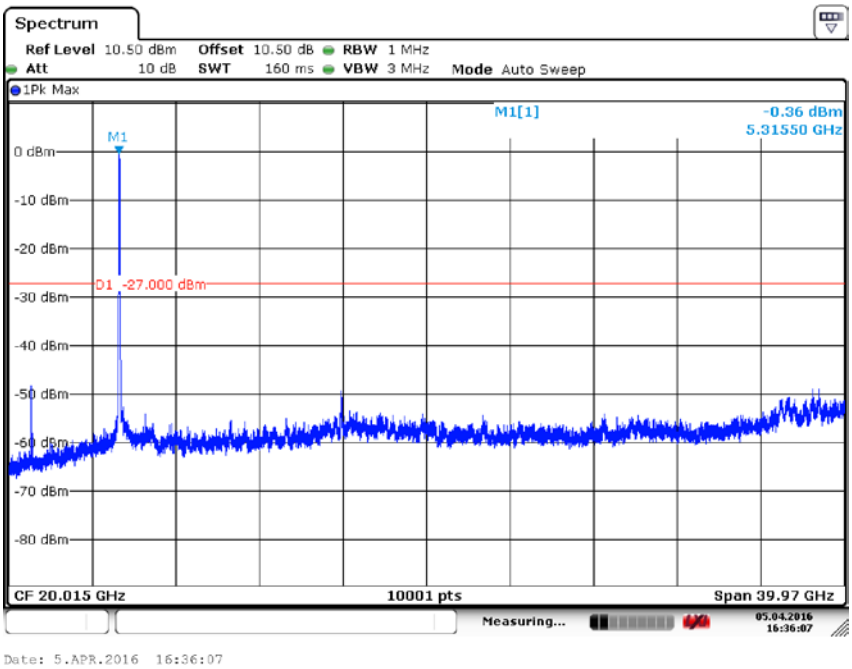
Test Mode: 802.11n (HT40)



Carrier frequency (MHz): 5270
Channel No.:54
Test Mode: 802.11n (HT40)



Carrier frequency (MHz): 5310
Channel No.:62
Test Mode: 802.11n(HT40)

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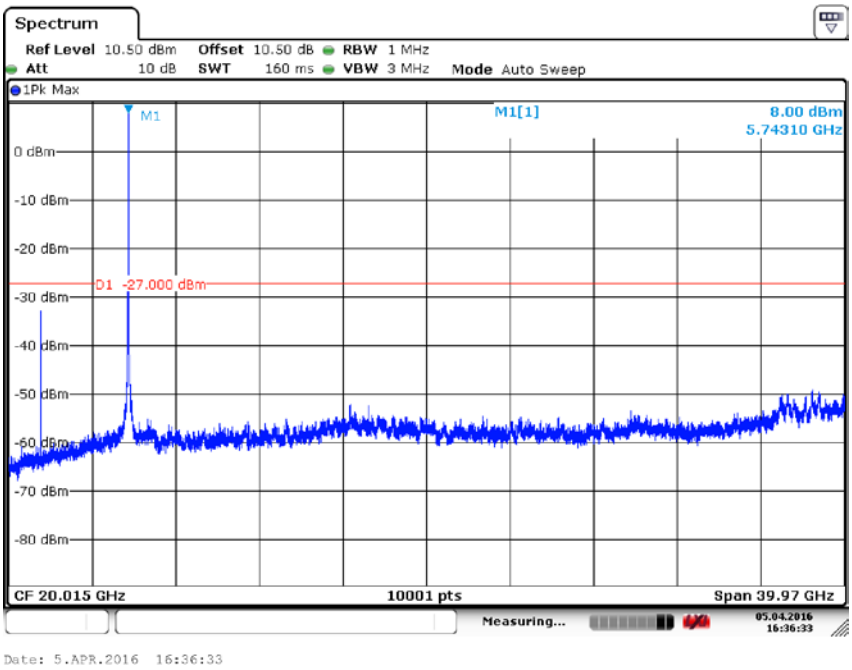
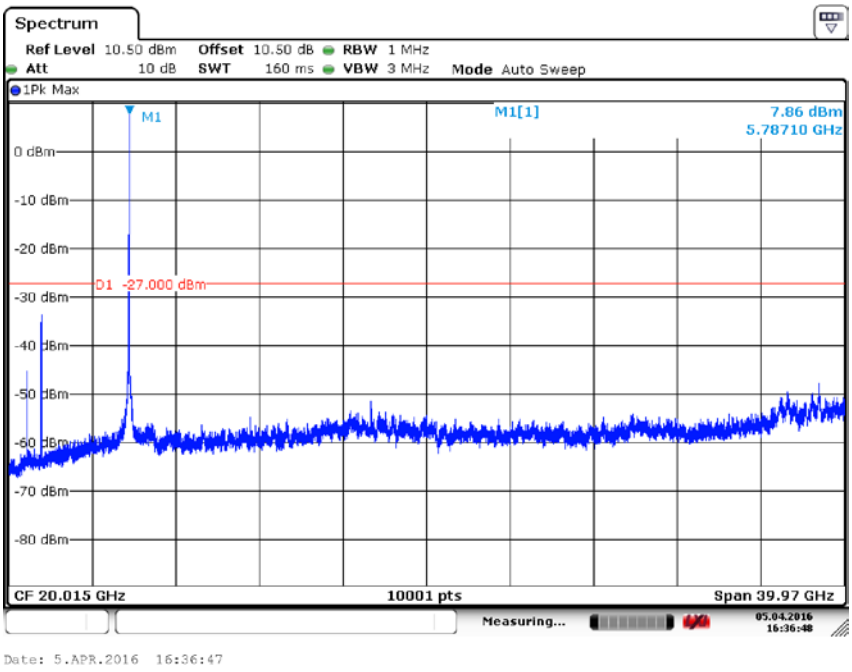
5725MHz~5850MHz
Test Mode: 802.11a



Carrier frequency (MHz): 5745
Channel No.149
Test Mode: 802.11a



Carrier frequency (MHz): 5785
Channel No.157
Test Mode: 802.11a

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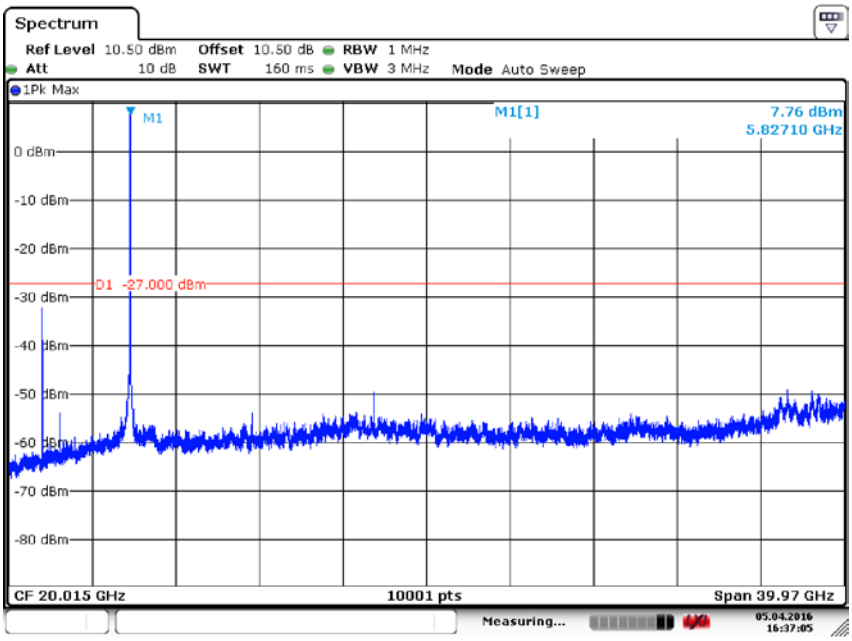
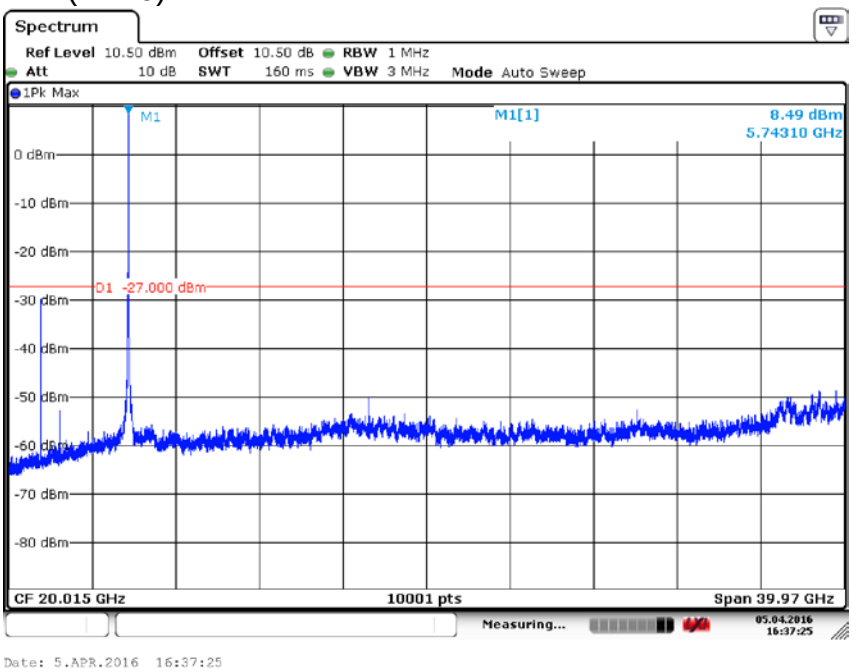


Carrier frequency (MHz): 5825
Channel No.165
Test Mode: 802.11a

Test Mode: 802.11n (HT20)



Carrier frequency (MHz): 5745
Channel No.:149
Test Mode: 802.11n (HT20)

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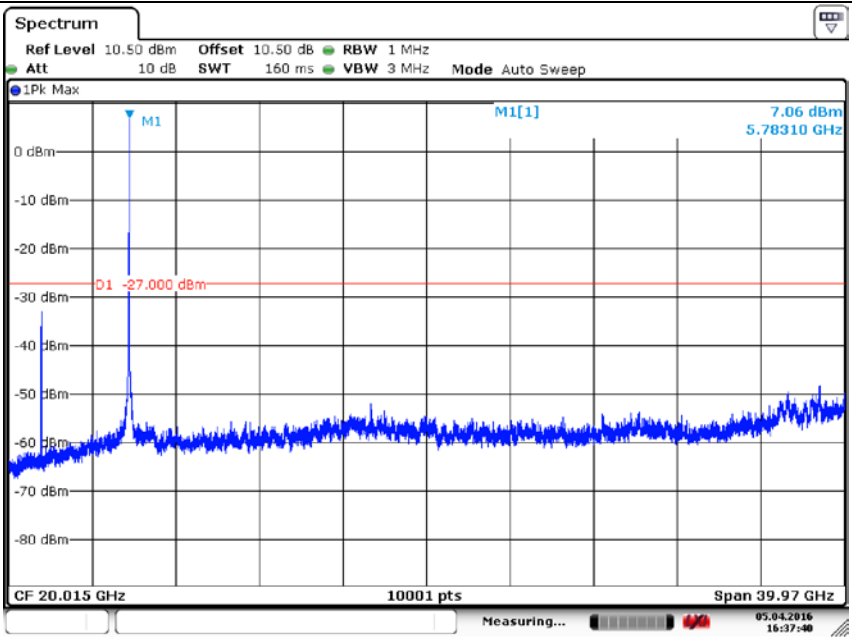
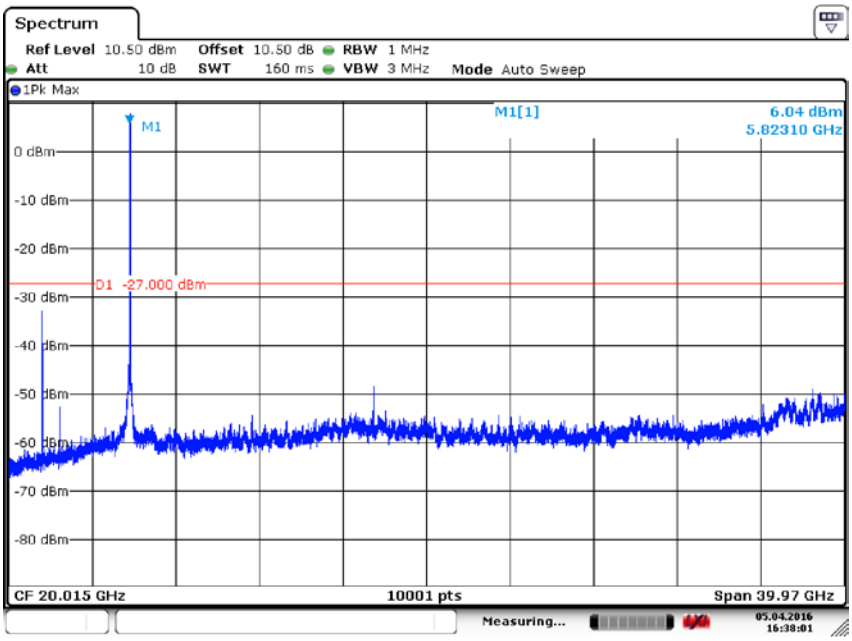


Date: 5.APR.2016 16:37:39

Carrier frequency (MHz): 5785
Channel No.:157
Test Mode: 802.11n (HT20)



Date: 5.APR.2016 16:38:00

Carrier frequency (MHz): 5825
Channel No.:165
Test Mode: 802.11n (HT20)

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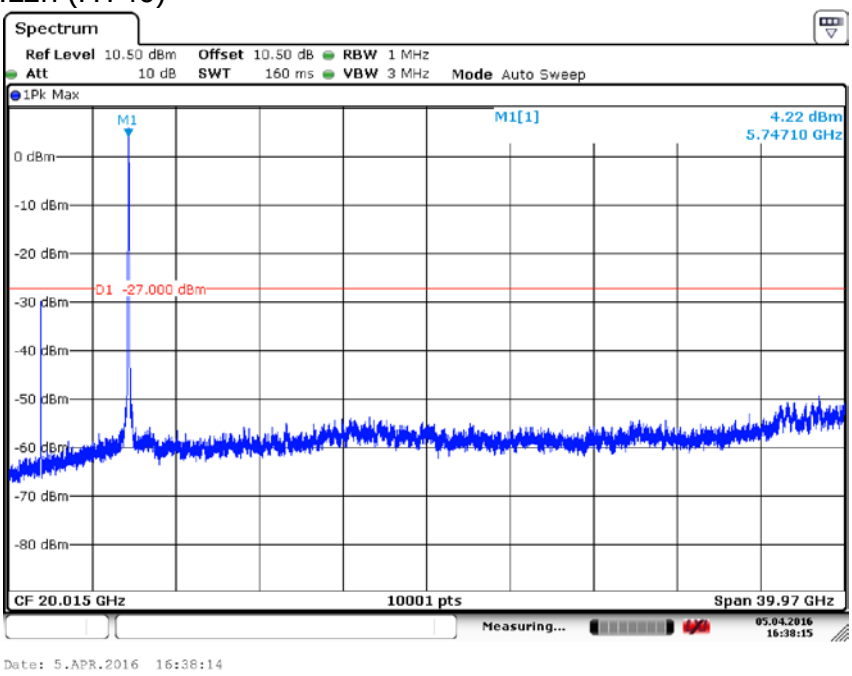
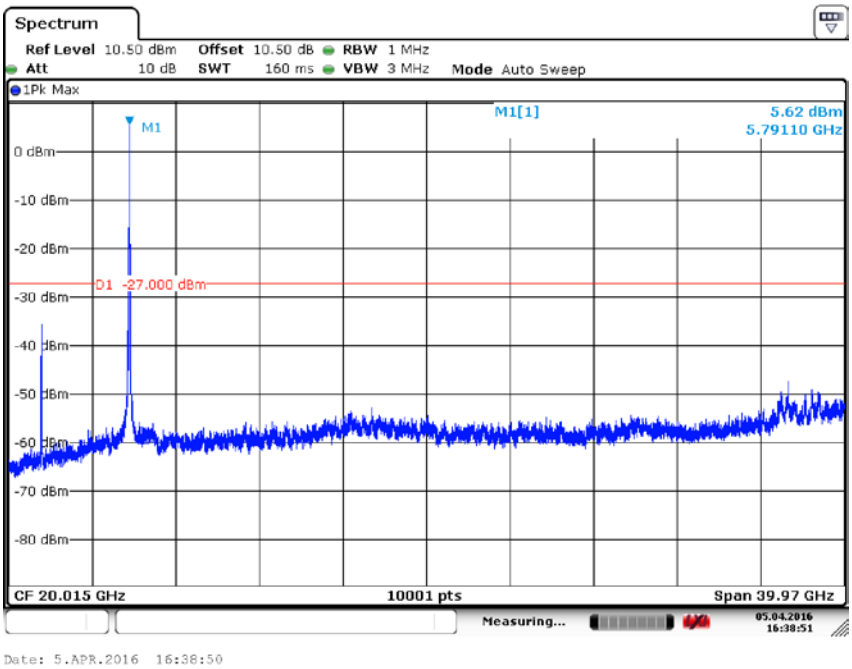
Test Mode: 802.11n (HT40)



Carrier frequency (MHz): 5755
Channel No.:151
Test Mode: 802.11n (HT40)



Carrier frequency (MHz): 5795
Channel No.:159
Test Mode: 802.11n(HT40)

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6.7 Unwanted Radiated Emission Measurement

6.7.1 Ambient condition

Temperature	Relative humidity	Pressure
20.8°C	36.5%	100.9kPa

6.7.2 Test Description

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at maximum power and at the appropriate frequencies. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

6.7.3 Test limit

FCC Part15.205, 15.209;

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in below Table per Section 15.209.

Frequency [MHz]	Field strength [μV/m]	Measured Distance [meters]
30～88	100	3
88～216	150	3
216～960	200	3
Above 960	500	3

Radiated Limits

FCC Part15.35(b):

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit

Used conversion factor: Limit (dBμV/m) = 20 log (Limit (μV/m)/1μV/m)

Frequency [MHz]	Detector	Unit (dBμV/m)
30～88	Quasi-peak	40.0
88～216	Quasi-peak	43.5
216～960	Quasi-peak	46.0
960～1000	Quasi-peak	54.0
1000～5th harmonic of the highest frequency or 40GHz, whichever is lower	Average	54.0
	Peak	74.0

Conversion Radiated limits

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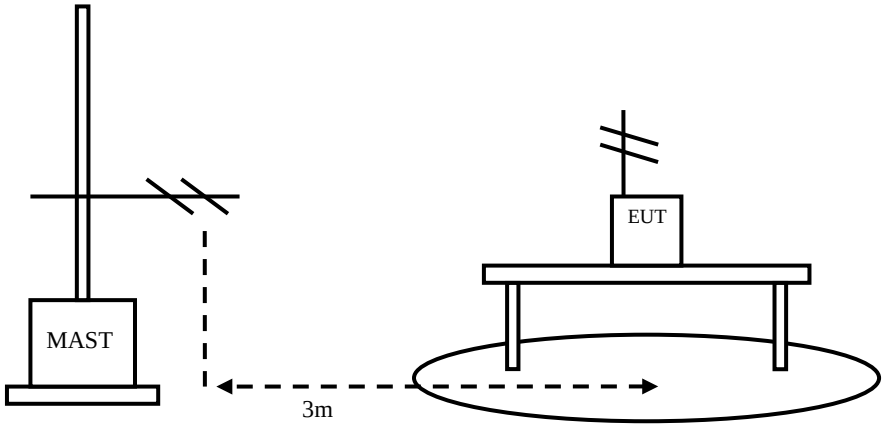
6.7.4 Test Procedure Used
KDB 789033 D01 v01r03, Sections G.3, G.4, G.5, and G.6.

6.7.5 Test Settings
Average Field Strength Measurements
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be > 2 x span/RBW)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces

Peak Field Strength Measurements
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.7.6 Test Setup
The EUT and measurement equipment were set up as shown in the diagram below



The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration. Then start the test software ES-K1. Sweep the whole frequency band through the range from 30MHz to 1GHz or above, using receive log period antenna HL562 or Ridge horn antenna HF906.

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During the test, the antenna height and EUT azimuth were varied in order to identify the maximum level of emission from the EUT. The height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees. The measurements shall be repeated with orthogonal polarization of the test antenna. The results shall be showed the worst case of the three orthogonal axes.
The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

6.7.7 Test result

The worst case attitude: The mobile lay down.

Peak detector：RBW=1MHz,VBW=3MHz,sweep time=200ms；
Average detector：RBW=1MHz,VBW=3MHz,sweep time=auto；

Carrier frequency (MHz): 5180 MHz
Channel No.:36
Test Mode: 802.11a
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	105.32	58.42	N/A	N/A	12.40	34.50
2	5150	54.19	7.29	-19.81	74.0	12.40	34.50

Carrier frequency (MHz): 2412
Channel No.:36
Test Mode: 802.11a
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	100.70	53.80	N/A	N/A	12.40	34.50
2	5150	53.56	6.66	-20.44	74.0	12.40	34.50

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Carrier frequency (MHz): 5180 MHz
Channel No.: 36
Test Mode: 802.11a
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	99.14	52.24	N/A	N/A	12.40	34.50
2	5150	41.20	-5.75	-12.85	54.0	12.40	34.50

Carrier frequency (MHz): 5180 MHz
Channel No.: 36
Test Mode: 802.11a
Polarity: Horizontal
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	94.80	47.90	N/A	N/A	12.40	34.50
2	5150	41.00	-5.87	-12.97	54.0	12.40	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	105.19	58.09	N/A	N/A	12.60	34.50
2	5350	54.32	6.43	-19.68	74.0	12.60	34.50

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Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	100.72	53.62	N/A	N/A	12.60	34.50
2	5350	53.93	7.03	-20.07	74.0	12.40	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	98.96	51.86	N/A	N/A	12.60	34.50
2	5350	41.08	-5.75	-12.92	54.0	12.60	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Horizontal
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	94.00	46.90	N/A	N/A	12.60	34.50
2	5350	40.64	-6.46	-13.36	54.0	12.60	34.50

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Carrier frequency (MHz): 5180 MHz
Channel No.:36
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	103.83	56.93	N/A	N/A	12.40	34.50
2	5150	53.92	7.02	-20.08	74.0	12.40	34.50

Carrier frequency (MHz): 5180 MHz
Channel No.:36
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	98.90	52.00	N/A	N/A	12.40	34.50
2	5150	54.36	7.46	-19.64	74.0	12.40	34.50

Carrier frequency (MHz): 5180 MHz
Channel No.:36
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	97.92	51.02	N/A	N/A	12.40	34.50
2	5150	41.11	-5.79	-12.89	54.0	12.40	34.50

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Carrier frequency (MHz): 5180 MHz
Channel No.:36
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5180	93.77	46.87	N/A	N/A	12.40	34.50
2	5150	40.50	-6.36	-13.46	54.0	12.40	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	103.22	56.12	N/A	N/A	12.60	34.50
2	5350	53.69	6.43	-20.31	74.0	12.60	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	99.18	52.08	N/A	N/A	12.60	34.50
2	5350	52.78	5.68	-21.22	74.0	12.60	34.50

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Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	97.04	49.94	N/A	N/A	12.60	34.50
2	5350	40.68	-5.75	-13.32	54.0	12.60	34.50

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	93.03	45.93	N/A	N/A	12.60	34.50
2	5350	40.80	-6.30	-13.20	54.0	12.60	34.50

Carrier frequency (MHz): 5190
Channel No.:38
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5190	103.84	56.94	N/A	N/A	12.40	34.50
2	5150	53.72	6.82	-20.28	74.0	12.40	34.50

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Carrier frequency (MHz): 5190
Channel No.:38
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5190	99.64	52.74	N/A	N/A	12.40	34.50
2	5150	54.15	7.25	-19.85	74.0	12.40	34.50

Carrier frequency (MHz): 5190
Channel No.:38
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5190	97.66	50.76	N/A	N/A	12.40	34.50
2	5150	40.39	-6.51	-13.61	54.0	12.40	34.50

Carrier frequency (MHz): 5190
Channel No.:38
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5190	92.89	45.99	N/A	N/A	12.40	34.50
2	5150	39.40	-7.51	-14.61	54.0	12.40	34.50

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Carrier frequency (MHz): 5310
Channel No.:62
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5310	102.66	55.56	N/A	N/A	12.60	34.50
2	5350	53.92	6.43	-20.08	74.0	12.60	34.50

Carrier frequency (MHz): 5310
Channel No.:62
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5310	98.55	51.45	N/A	N/A	12.60	34.50
2	5350	52.95	5.85	-21.05	74.0	12.60	34.50

Carrier frequency (MHz): 5310
Channel No.:62
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Average

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5310	96.51	49.41	N/A	N/A	12.60	34.50
2	5350	40.62	-5.75	-13.38	54.0	12.60	34.50

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Carrier frequency (MHz): 5310
Channel No.:62
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Average

No	Frequency（MHz）	Measure Level（dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5310	92.31	45.21	N/A	N/A	12.60	34.50
2	5350	40.37	-6.73	-13.63	54.0	12.60	34.50

Carrier frequency (MHz): 5745 MHz
Channel No.:149
Test Mode: 802.11a
Polarity: Vertical
Detector: Peak

No	Frequency（MHz）	Measure Level（dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv)	cable loss (dB)	antenna factor (dB)
1	5745	109.28	61.68	N/A	N/A	12.90	34.70
2	5725	53.95	6.35	-24.35	78.3	12.90	34.70

Carrier frequency (MHz): 5745 MHz
Channel No.:149
Test Mode: 802.11a
Polarity: Horizontal
Detector: Peak

No	Frequency（MHz）	Measure Level（dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5745	104.58	56.98	N/A	N/A	12.90	34.70
2	5725	53.98	6.38	-24.32	78.3	12.90	34.70

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Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	106.19	58.59	N/A	N/A	12.90	34.70
2	5350	53.22	5.62	-25.08	78.3	12.90	34.70

Carrier frequency (MHz): 5320 MHz
Channel No.:64
Test Mode: 802.11a
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5320	100.56	52.96	N/A	N/A	12.90	34.70
2	5350	53.47	5.87	-24.83	78.3	12.90	34.70

Carrier frequency (MHz): 5745 MHz
Channel No.:149
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5745	108.37	60.77	N/A	N/A	12.90	34.70
2	5725	53.74	6.14	-24.56	78.3	12.90	34.70

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Carrier frequency (MHz): 5745 MHz
Channel No.:149
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5745	103.10	55.50	N/A	N/A	12.90	34.70
2	5725	53.47	5.87	-24.83	78.3	12.90	34.70

Carrier frequency (MHz): 5825 MHz
Channel No.:165
Test Mode: 802.11n(HT20)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5825	106.22	58.62	N/A	N/A	12.90	34.70
2	5850	53.37	5.77	-24.93	78.3	12.90	34.70

Carrier frequency (MHz): 5825 MHz
Channel No.:165
Test Mode: 802.11n(HT20)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5825	98.79	51.19	N/A	N/A	12.90	34.70
2	5850	53.64	6.04	-24.66	78.3	12.90	34.70

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Carrier frequency (MHz): 5755 MHz
Channel No.:151
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5745	108.51	60.91	N/A	N/A	12.90	34.70
2	5725	53.36	5.76	-24.94	78.3	12.90	34.70

Carrier frequency (MHz): 5755 MHz
Channel No.:151
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5745	103.82	56.22	N/A	N/A	12.90	34.70
2	5725	53.71	6.11	-24.59	78.3	12.90	34.70

Carrier frequency (MHz): 5795 MHz
Channel No.:159
Test Mode: 802.11n(HT40)
Polarity: Vertical
Detector: Peak

No	Frequency （MHz）	Measure Level （dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5825	105.88	58.28	N/A	N/A	12.90	34.70
2	5850	53.86	6.26	-24.44	78.3	12.90	34.70

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Carrier frequency (MHz): 5795 MHz
Channel No.:159
Test Mode: 802.11n(HT40)
Polarity: Horizontal
Detector: Peak

No	Frequency（MHz）	Measure Level（dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuv/m)	cable loss (dB)	antenna factor (dB)
1	5825	99.35	51.75	N/A	N/A	12.90	34.70
2	5850	53.24	5.64	-25.06	78.3	12.90	34.70

For 802.11a

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
85.87	21.50	10.80	10.70	Vertical
91.24	23.10	11.20	11.90	Vertical
94.49	31.30	11.30	20.00	Vertical
96.85	27.00	11.90	15.10	Horizontal
101.51	25.00	12.20	12.80	Vertical
117.57	23.80	13.00	10.80	Vertical
5086.17	54.52	7.20	47.32	Vertical
5392.79	54.85	8.00	46.85	Vertical

For 802.11n(HT20)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
74.05	17.40	9.00	8.40	Vertical
87.22	17.70	10.80	6.90	Vertical
93.44	30.80	11.20	19.60	Vertical
96.31	26.00	11.90	14.10	Horizontal
118.36	23.20	13.00	10.20	Vertical
210.62	23.60	11.90	11.70	Vertical
627.54	23.50	23.70	-0.20	Vertical
942.80	30.80	28.30	2.50	Vertical
5086.17	54.52	7.20	47.32	Vertical
5392.78	54.85	8.00	46.85	Vertical

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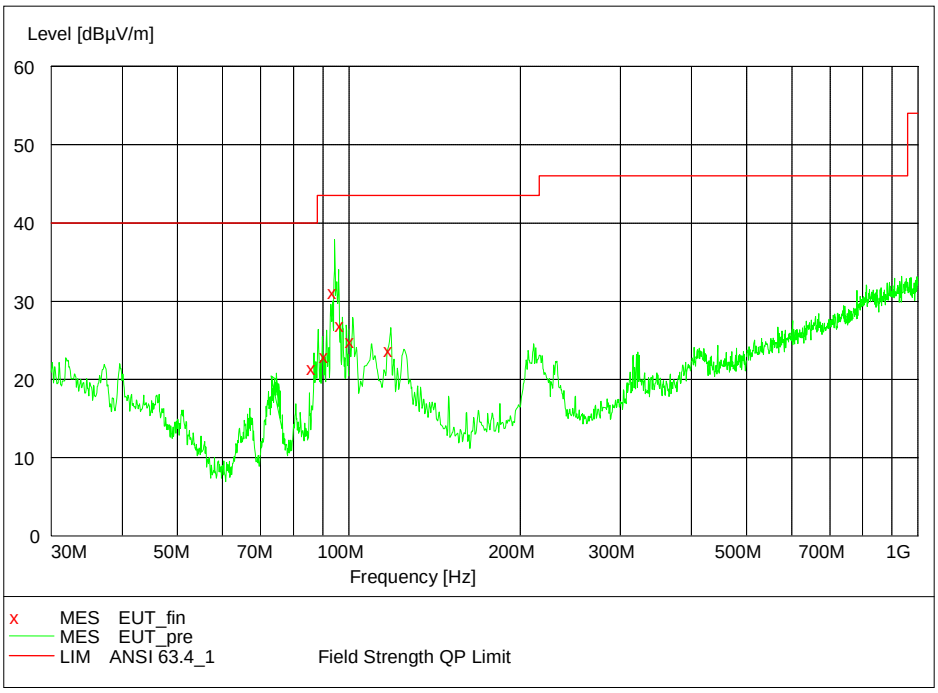
For 802.11n(HT40)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
31.03	18.20	20.10	-1.90	Vertical
75.51	16.60	8.80	7.80	Vertical
87.84	22.20	10.80	11.40	Vertical I
94.98	31.40	11.40	20.00	Horizonta
101.43	25.40	12.20	13.20	Vertical
108.49	18.80	12.50	6.30	Vertical
209.75	23.60	11.90	11.70	Vertical
941.98	31.40	28.30	3.10	Vertical
5056.11	54.17	7.50	46.67	Vertical
5392.79	54.50	8.00	46.50	Vertical

Carrier frequency (MHz): 5240
Channel No.:48



Frequency Range: 30MHz -1GHz
Detector: QP mode
Test Mode: 802.11a

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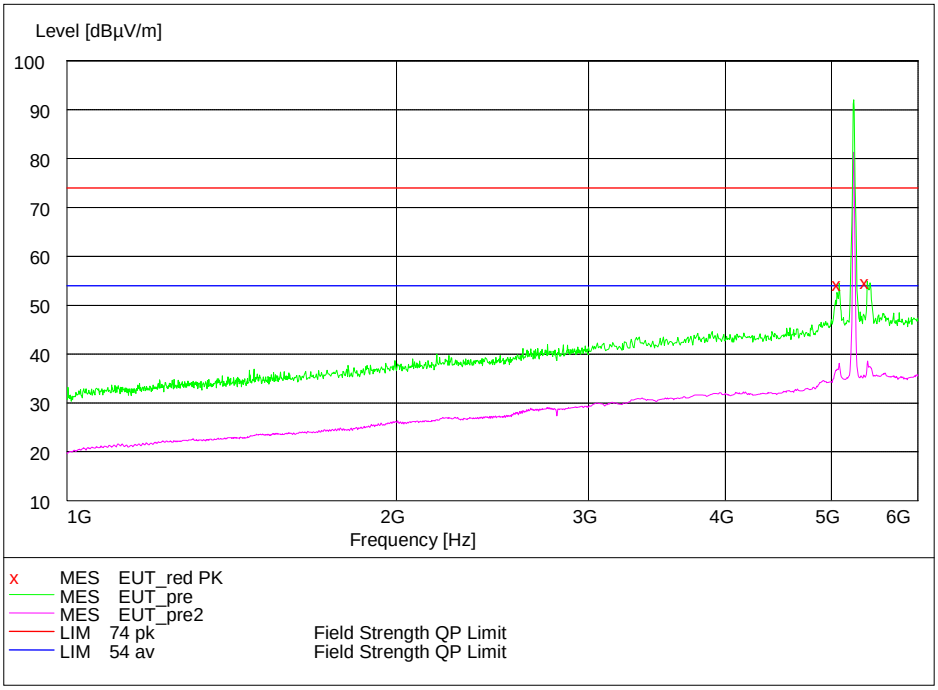
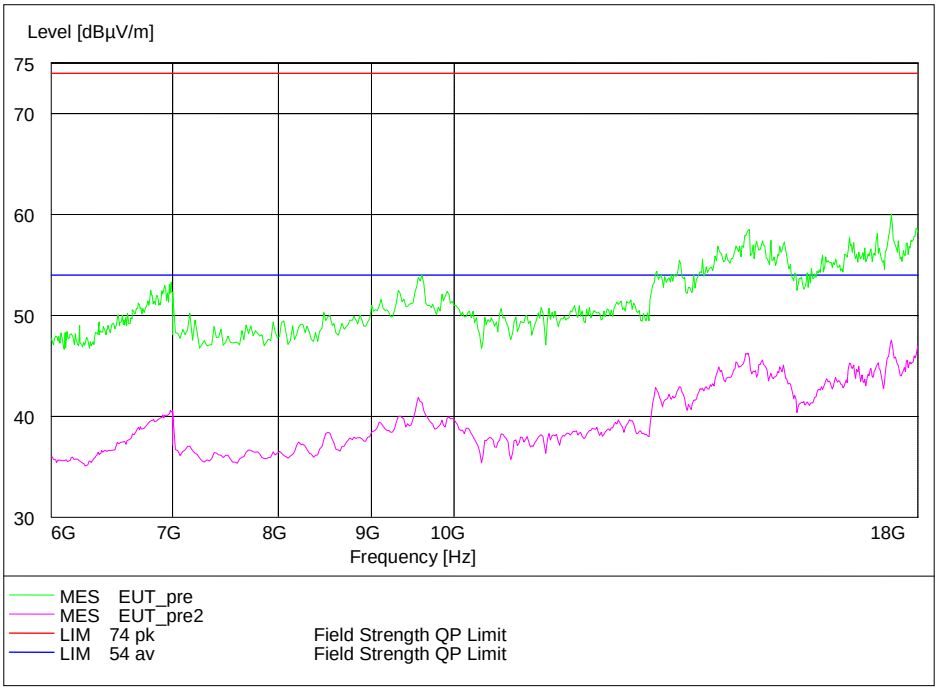


Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11a



Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11a

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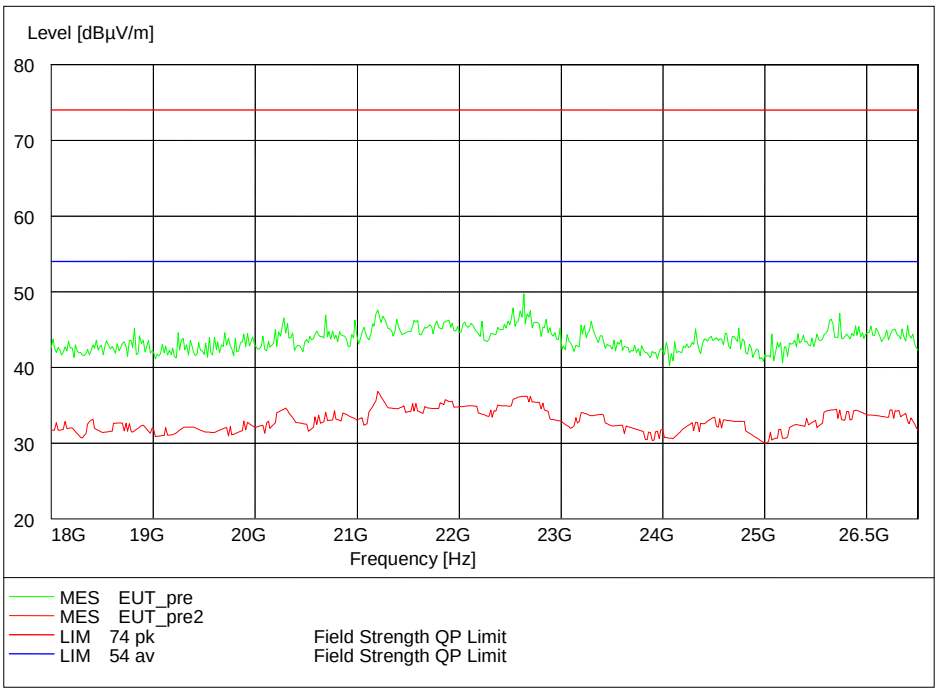
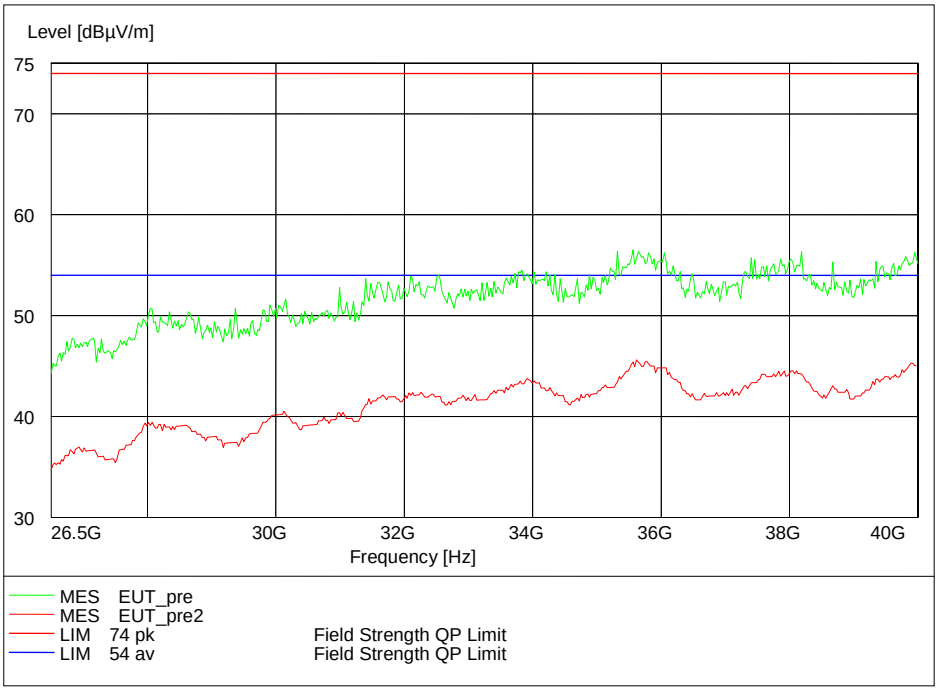


Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11a



Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11a

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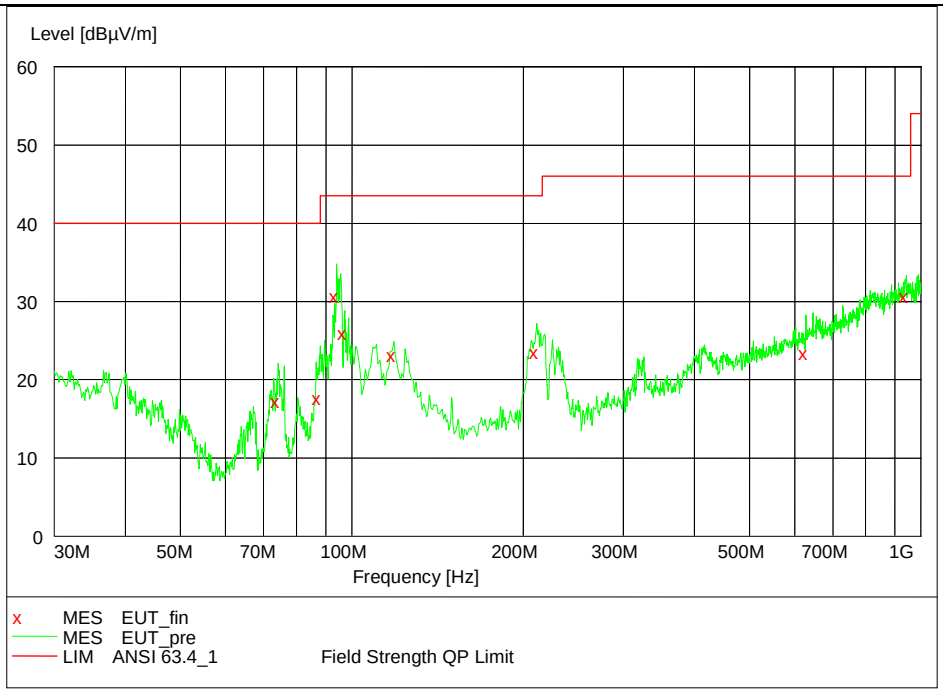
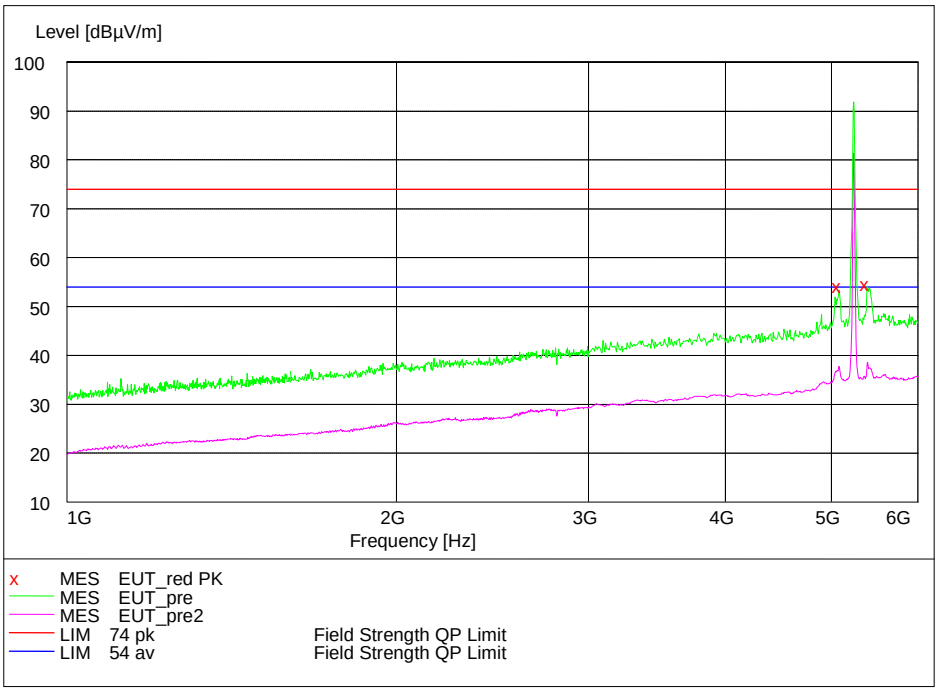


Frequency Range: 30MHz -1GHz
Detector: QP mode
Test Mode: 802.11n(HT20)



Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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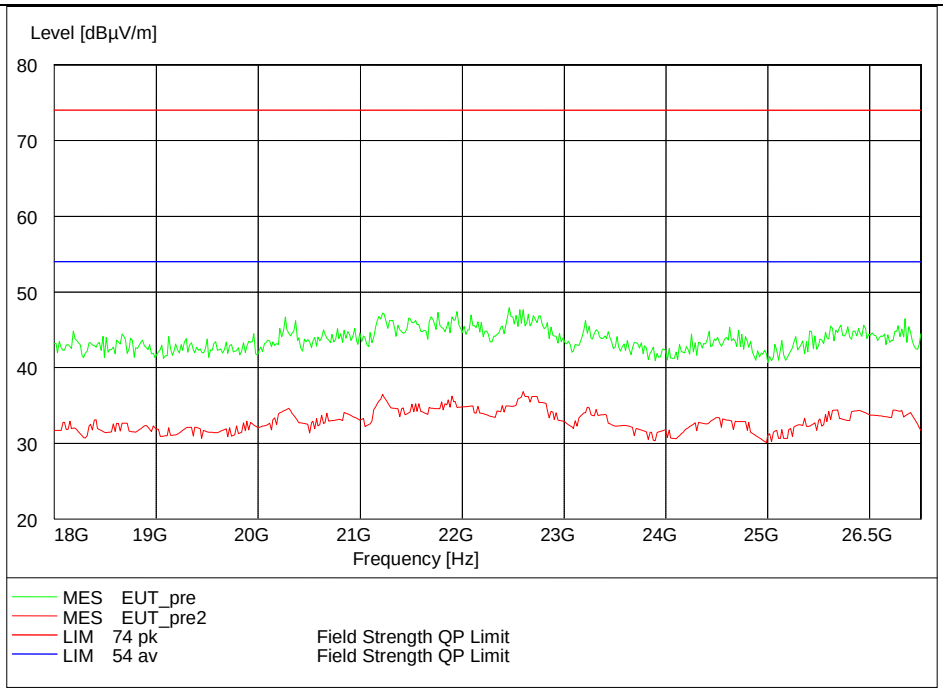
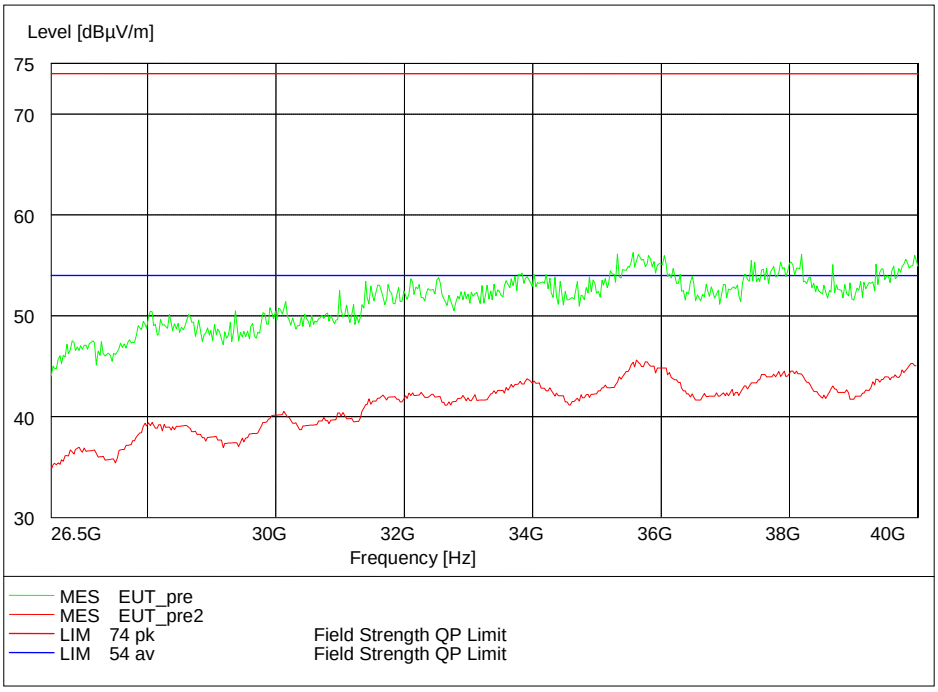


Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)



Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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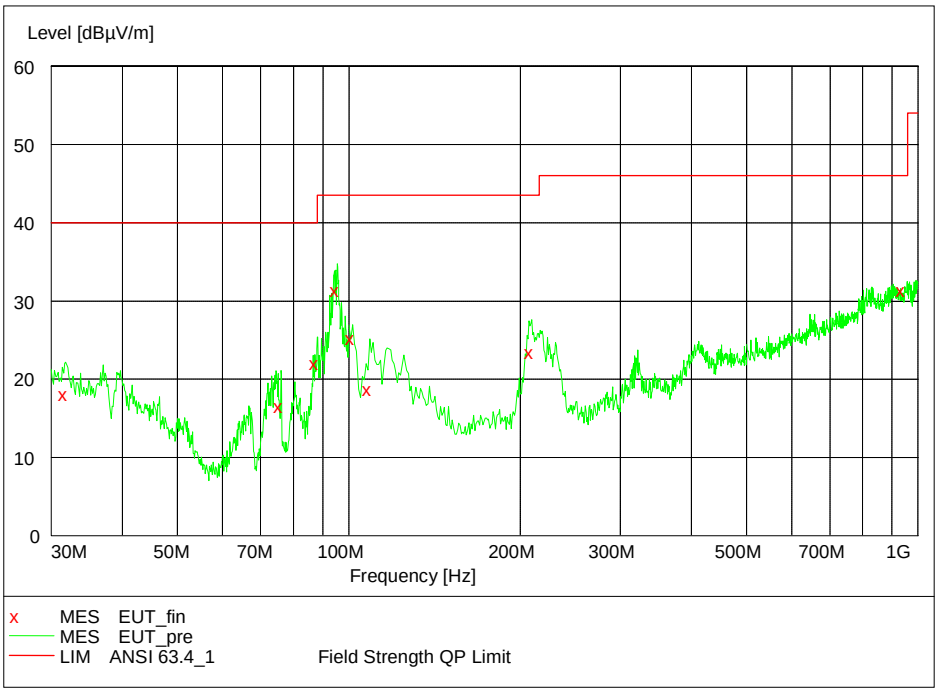
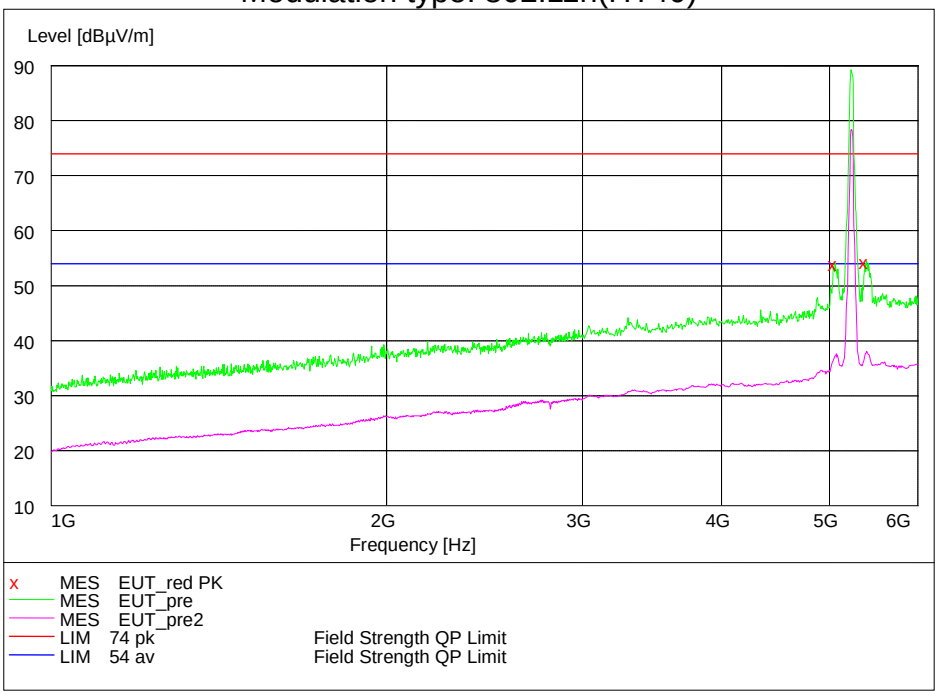
Carrier frequency (MHz): 5230
Channel No.:46



Frequency Range: 30MHz -1GHz
Detector: QP mode
Modulation type: 802.11n(HT40)



Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

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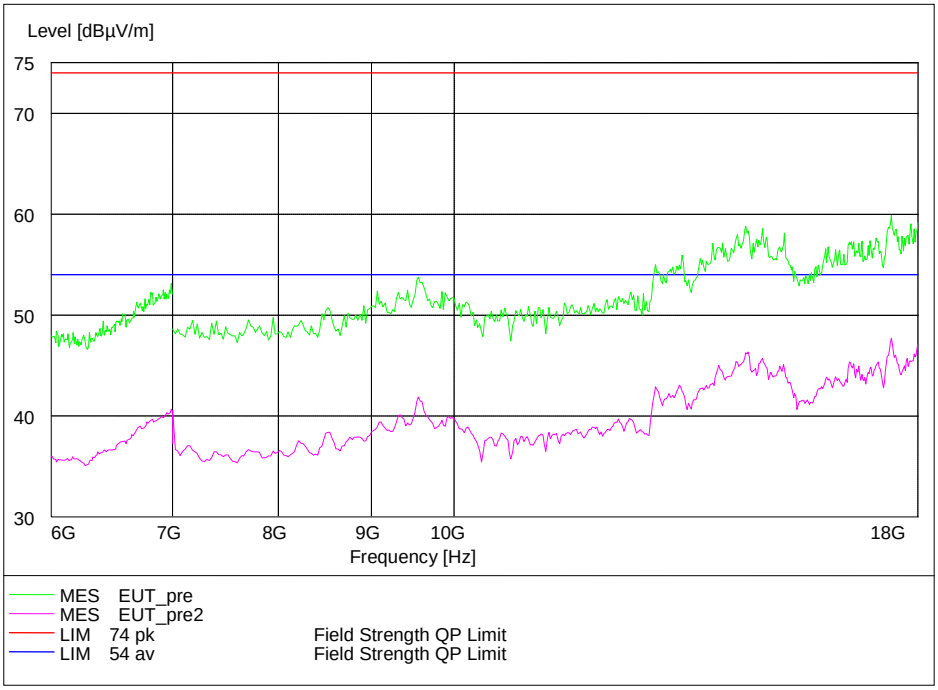
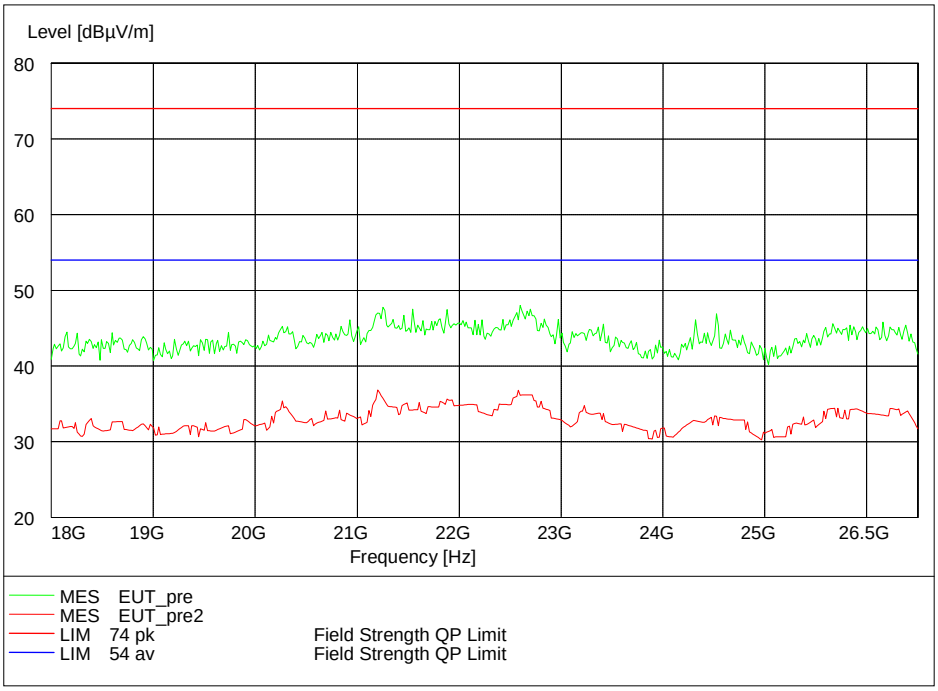


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)



Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

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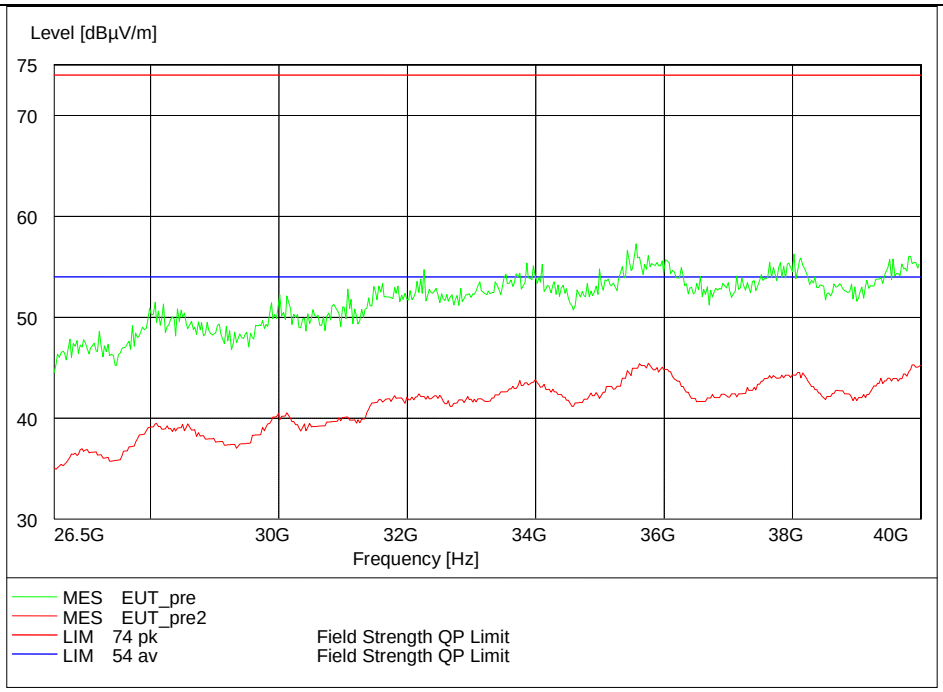

Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

For 802.11a

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
31.08	18.20	20.10	-1.90	Vertical
75.51	16.60	8.80	7.80	Vertical
87.50	22.20	10.80	11.40	Vertical
94.56	31.40	11.40	20.00	Horizontal
100.86	25.40	12.20	13.20	Vertical
108.72	18.80	12.50	6.30	Vertical
209.72	23.60	11.90	11.70	Vertical
942.04	31.40	28.30	3.10	Vertical
5627.25	52.88	8.40	44.48	Vertical
5945.89	52.36	8.50	43.86	Vertical

For 802.11n(HT20)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
31.83	18.50	20.00	-1.50	Vertical
73.88	18.20	8.90	9.30	Vertical
75.35	15.00	8.90	6.10	Vertical
87.93	21.70	10.80	10.90	Horizontal
94.86	31.60	11.40	20.20	Vertical

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100.64	25.60	12.20	13.40	Vertical
208.84	23.80	11.90	11.90	Vertical
942.85	31.50	28.30	3.20	Vertical
5939.87	52.92	8.50	44.42	Vertical

For 802.11n(HT40)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
31.54.0	17.60	20.00	-2.40	Vertical
74.37	18.50	9.00	9.50	Vertical
87.48	19.20	10.80	8.40	Vertical l
94.55	29.30	11.30	18.00	Horizonta
100.31	21.50	12.10	9.40	Vertical
110.09	20.40	12.60	7.80	Vertical
209.54.0	22.70	11.90	10.80	Vertical
942.15	32.60	28.30	4.30	Vertical

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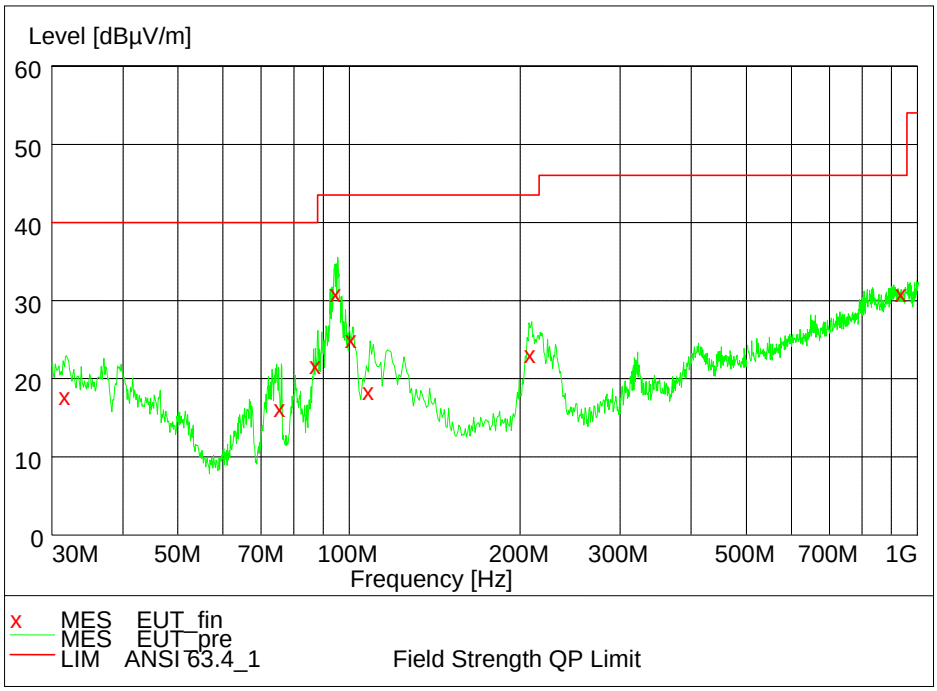
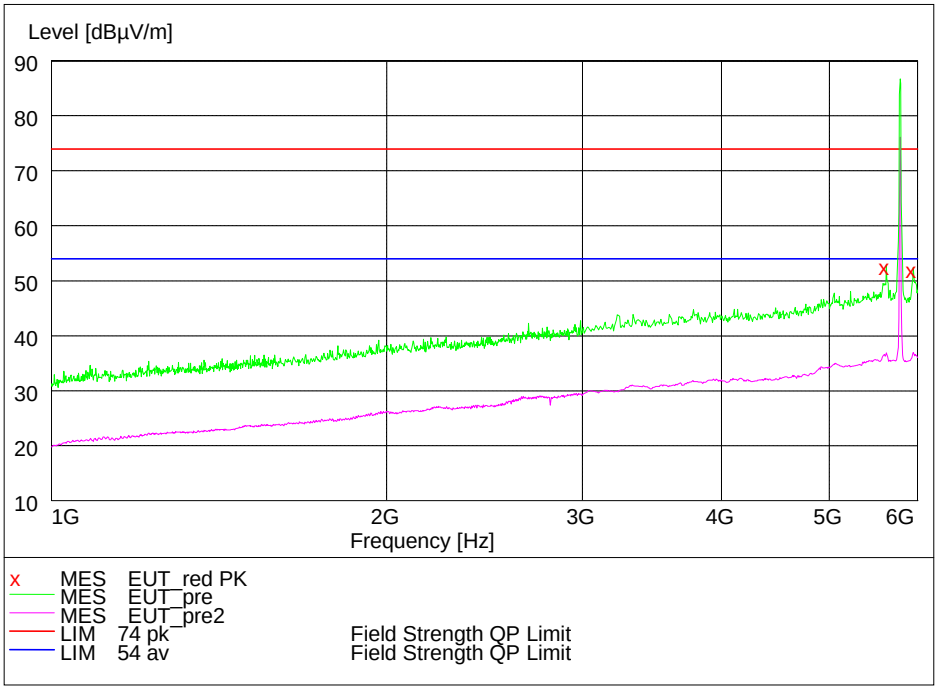
Carrier frequency (MHz): 5785
Channel No.:157



Frequency Range: 30MHz -1GHz
Detector: QP mode
Test Mode: 802.11a



Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11a

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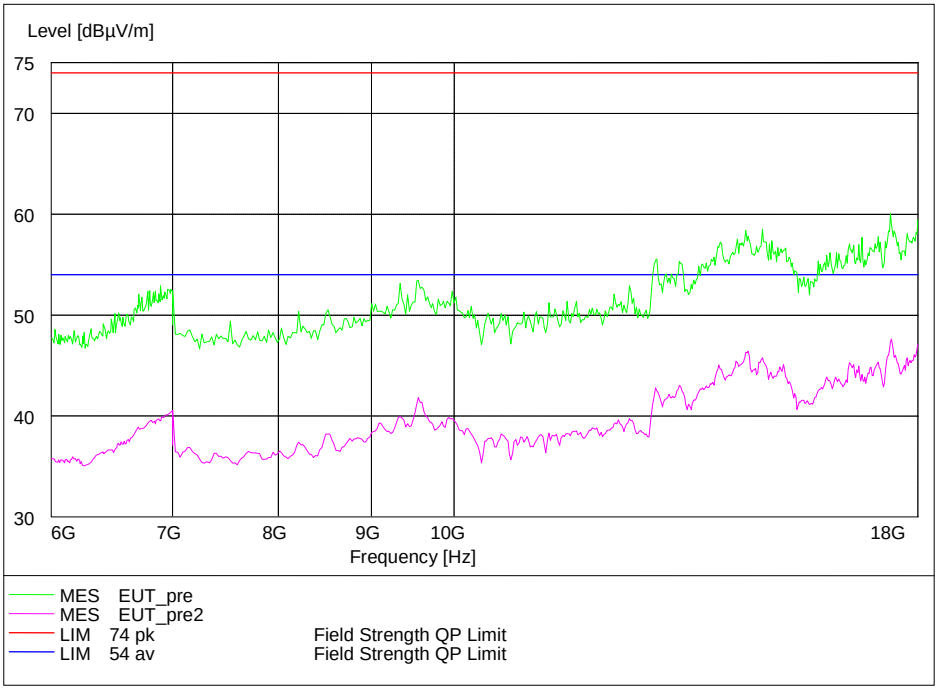
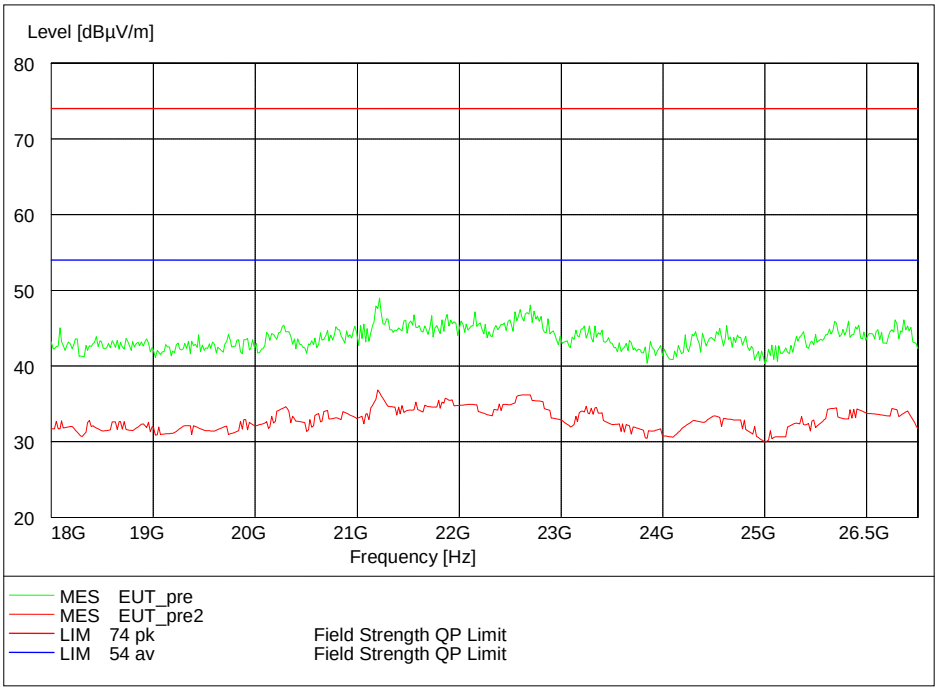


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11a



Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11a

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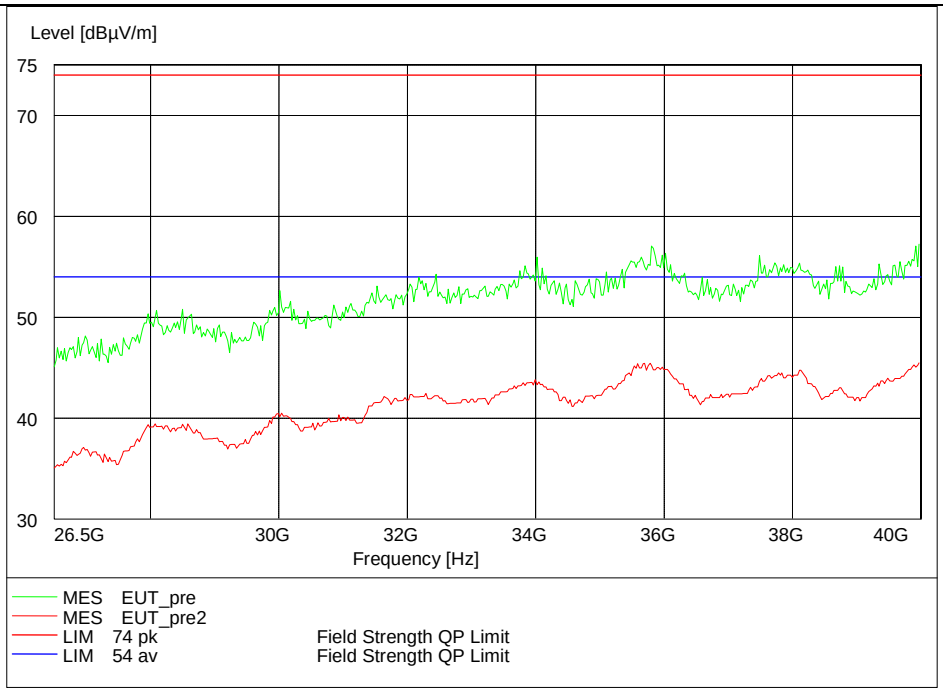

Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11a

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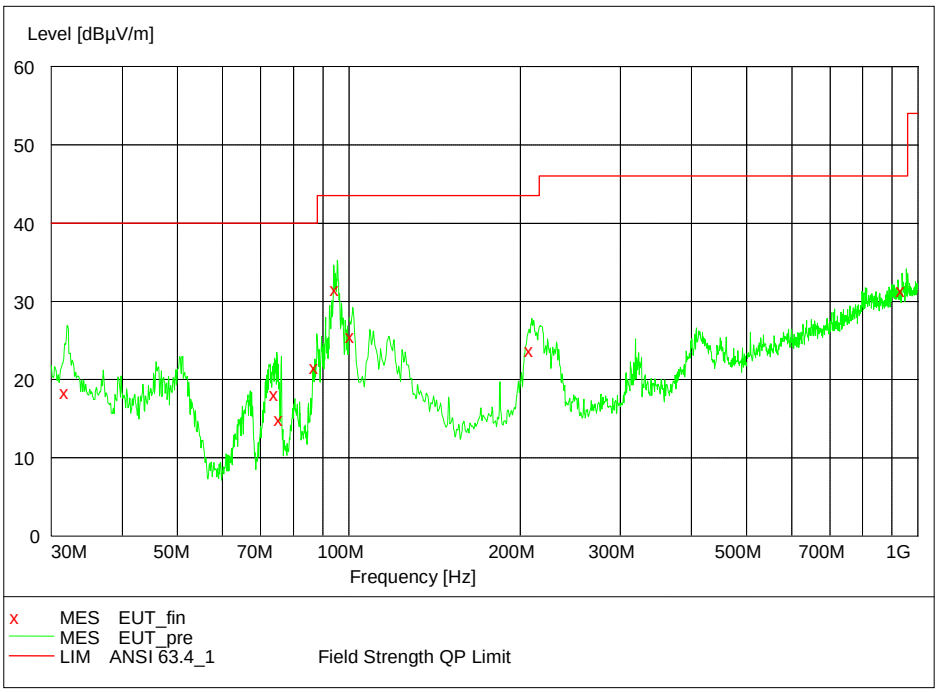
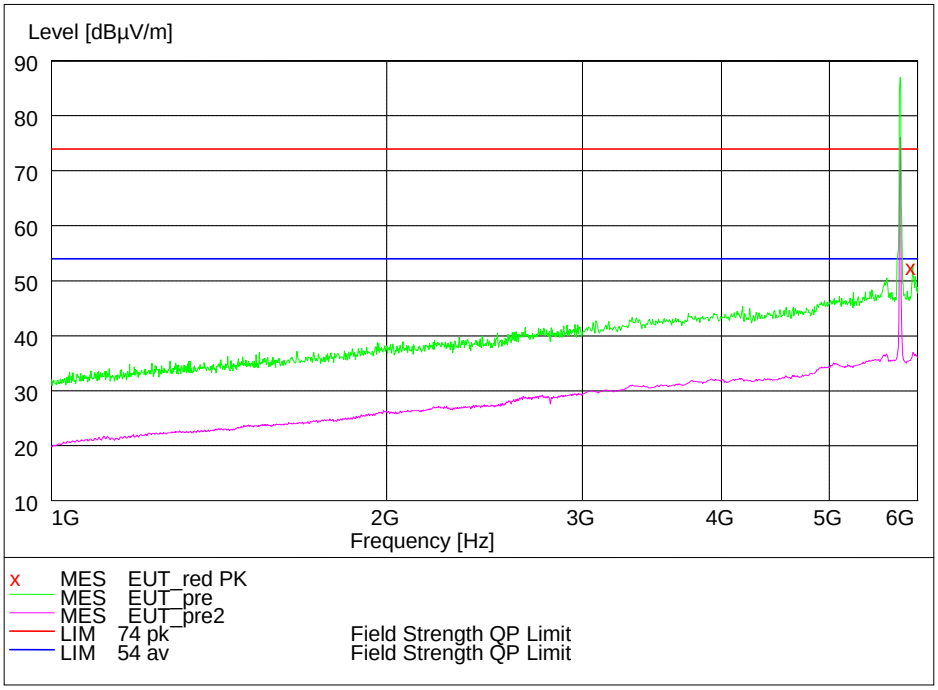


Frequency Range: 30MHz -1GHz
Detector: QP mode
Test Mode: 802.11n(HT20)



Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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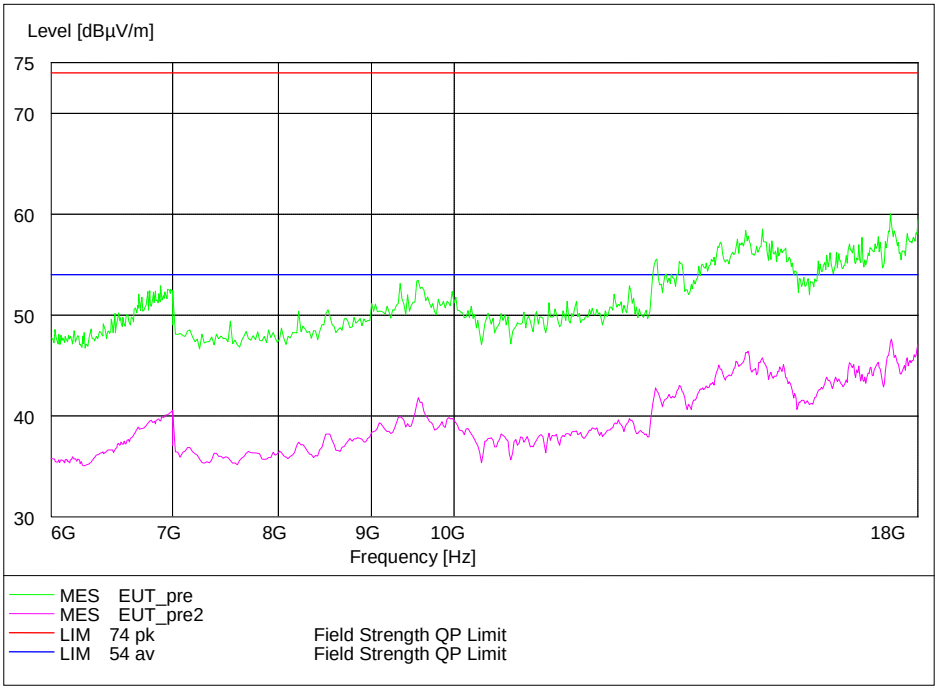
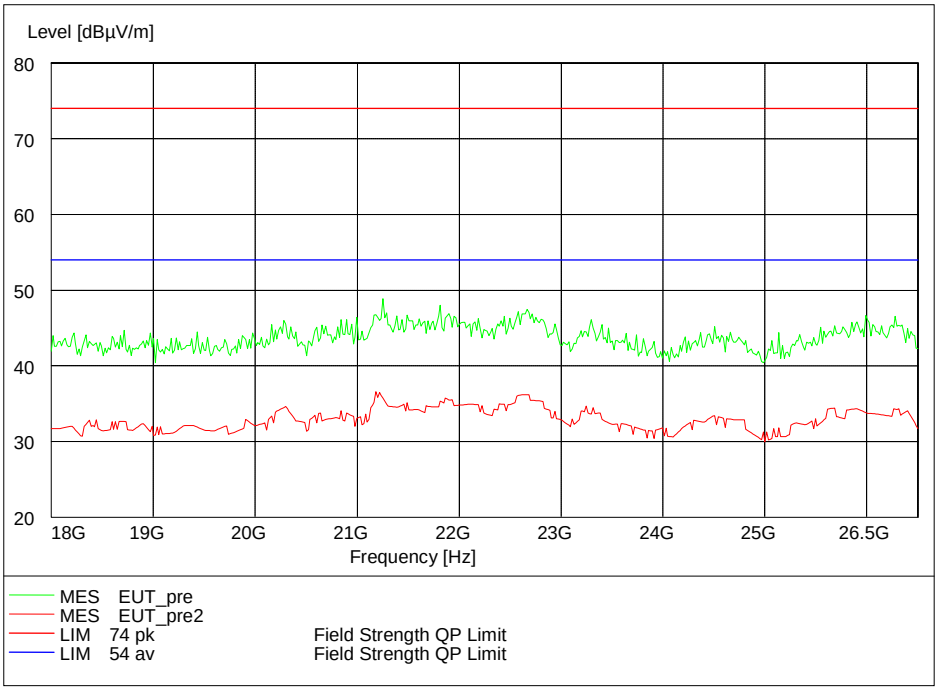


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)



Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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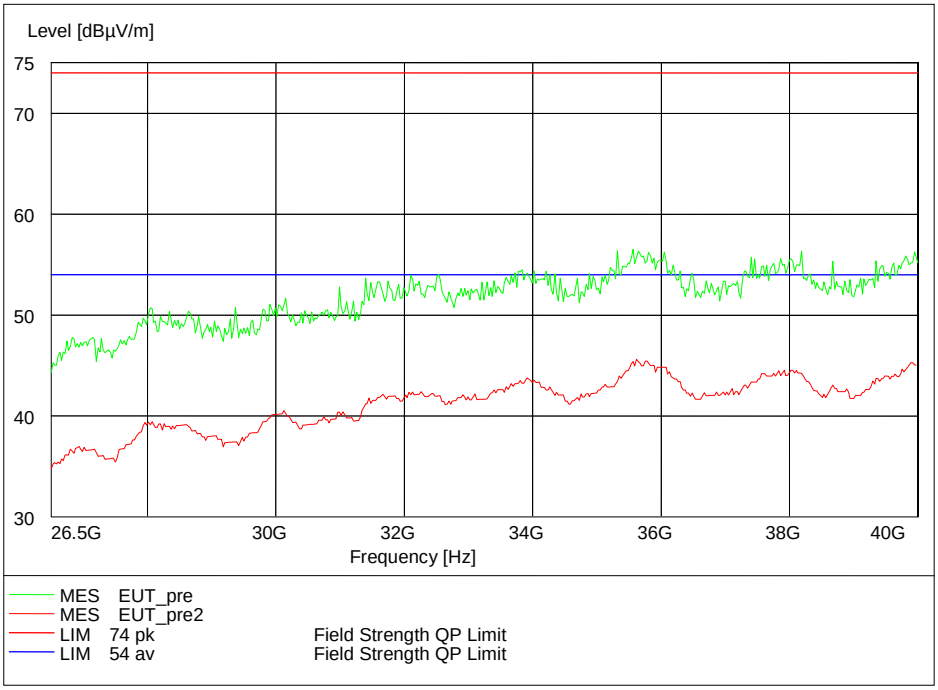

Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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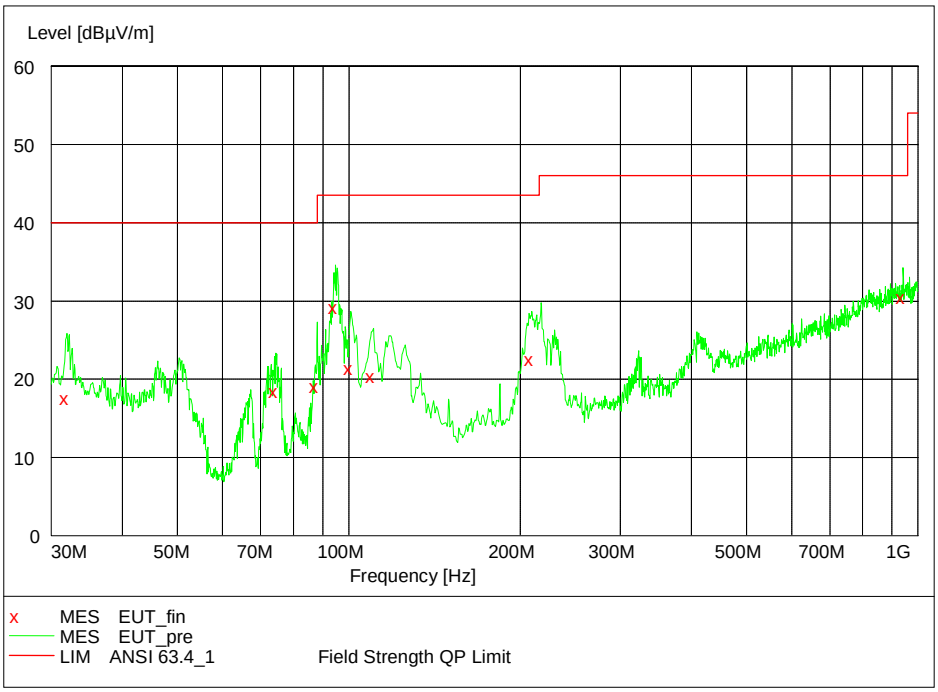
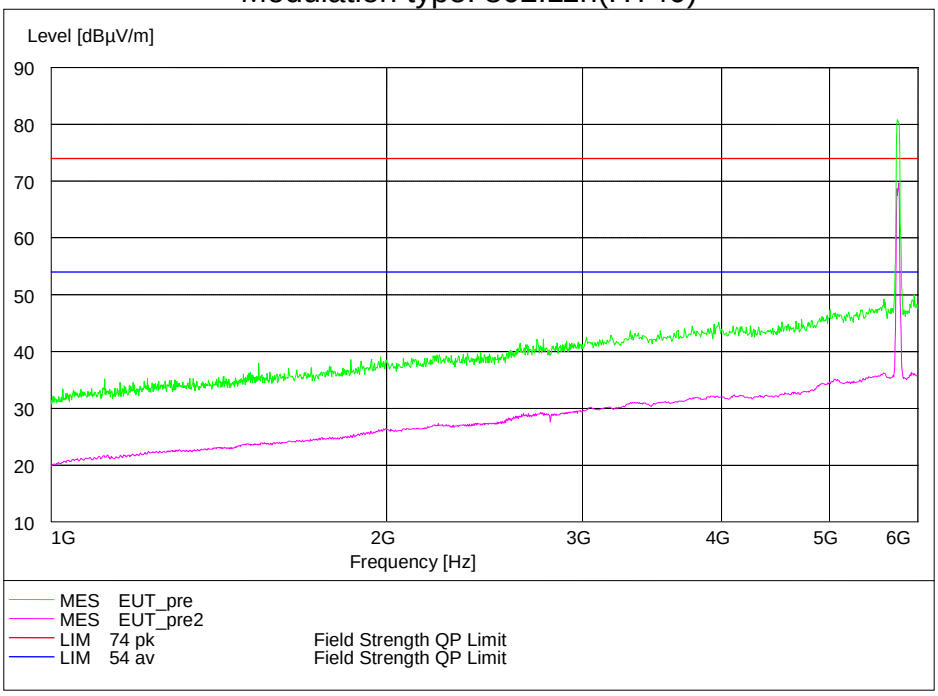
Carrier frequency (MHz): 5755
Channel No.:151



Frequency Range: 30MHz -1GHz
Detector: QP mode
Modulation type: 802.11n(HT40)



Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

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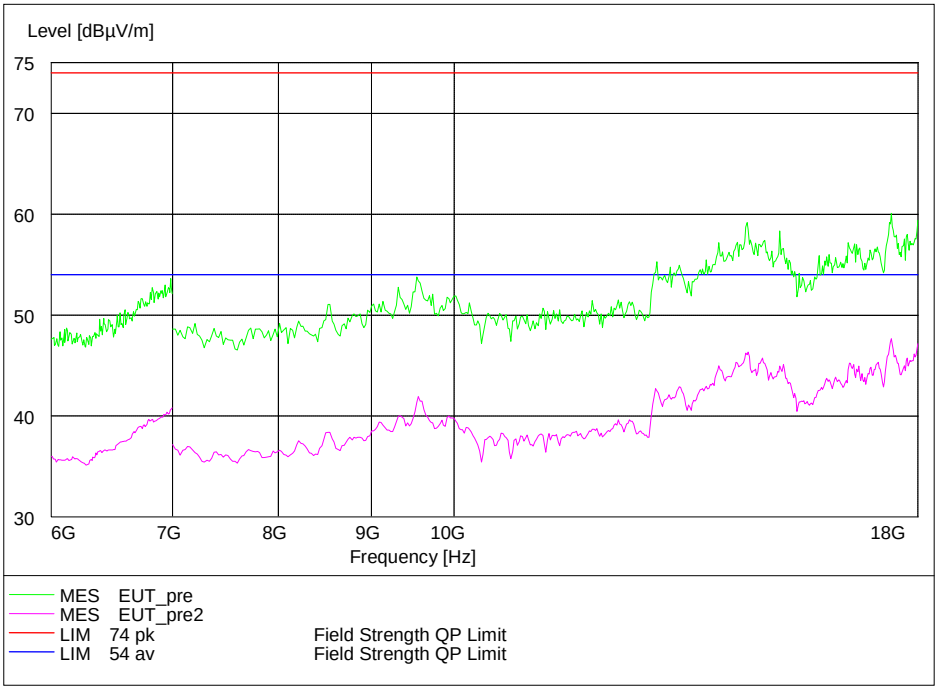
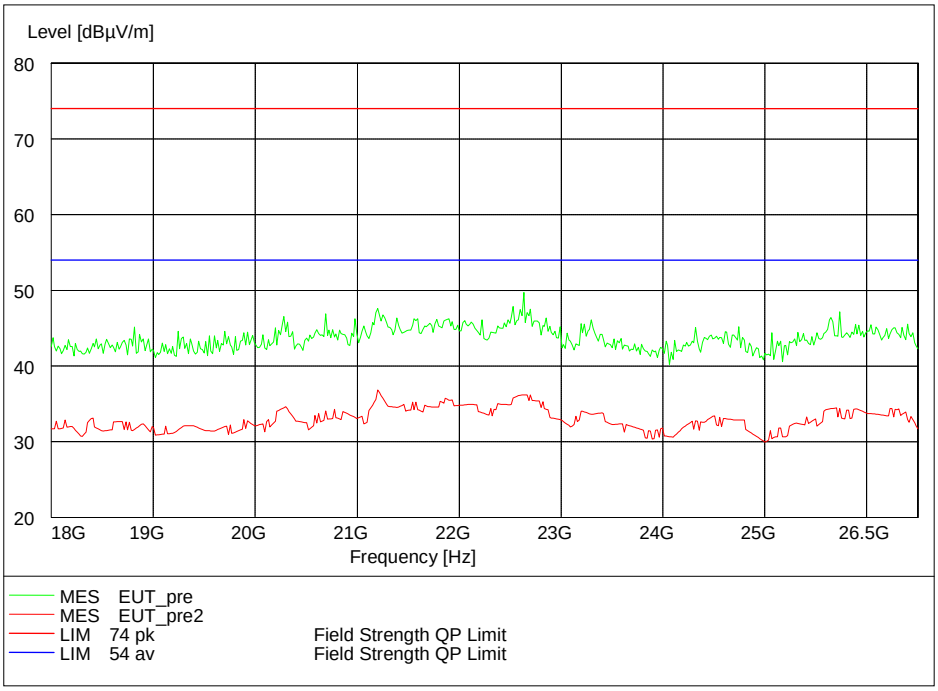
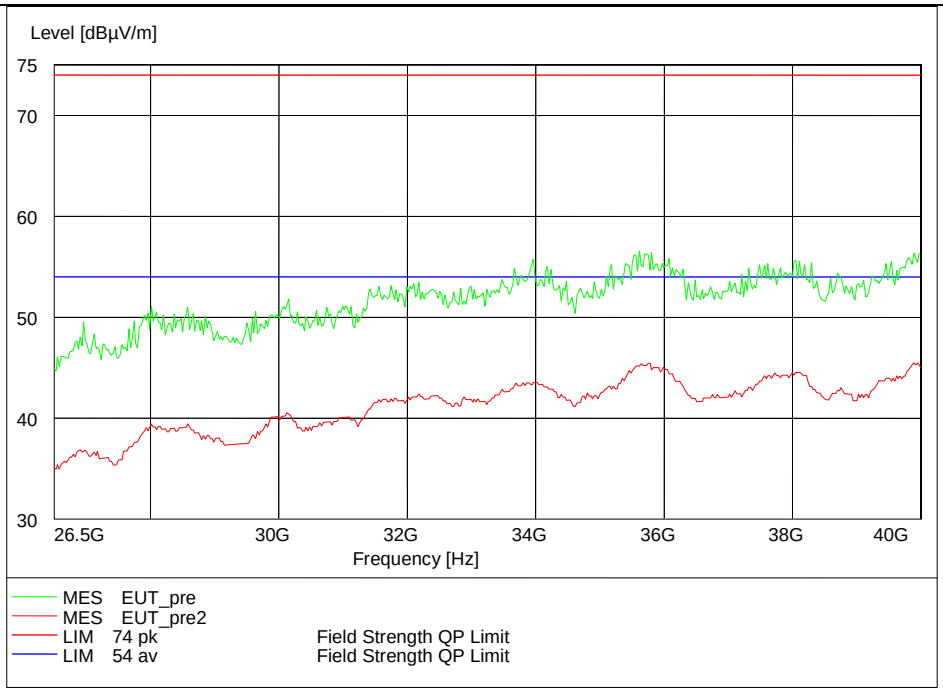


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)



Frequency Range: 18GHz -26.5GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Copyright © SRTC



Frequency Range: 26.5GHz -40GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

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6.8 AC Power line Conducted Emission

6.8.1 Ambient condition

Temperature	Relative humidity	Pressure
20.8°C	36.5%	100.9kPa

6.8.2 Test limit

FCC Part15.207(a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

The measurement is made according to ANSI C63.4-2014

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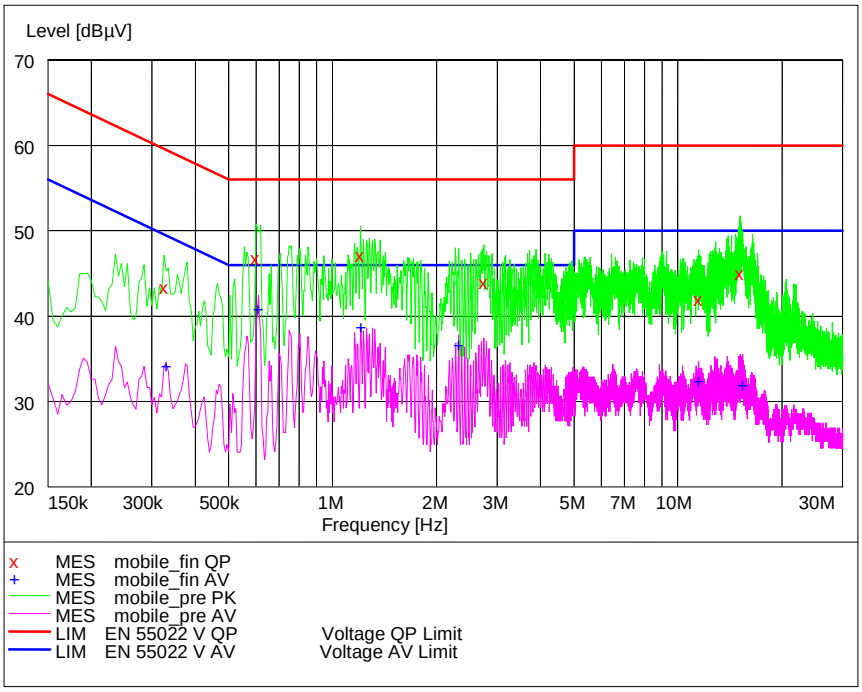
6.8.3 Test result



L + N Line

MEASUREMENT RESULT: "MOBILE_fin QP"

Frequency	Level	Transd	Limit	Margin	Line	
0.330000	34.30	29.6	50	15.2	---	---
0.610000	41.00	29.7	46	5.0	---	---
1.210000	38.90	29.7	46	7.1	---	---
2.320000	36.80	29.7	46	9.2	---	---
11.500000	32.60	29.9	50	17.4	---	---
15.415000	32.10	30.0	50	17.9	---	---

MEASUREMENT RESULT: "MOBILE_fin AV"

Frequency	Level	Transd	Limit	Margin	Line	
MHz	dBµV	dB	dBµV	dB		
0.325000	43.50	29.6	60	16.1	---	---
0.600000	46.90	29.7	56	9.1	---	---
1.205000	47.30	29.7	56	8.7	---	---
2.745000	44.10	29.7	56	11.9	---	---
11.500000	42.20	29.9	60	17.8	---	---
15.165000	45.20	29.9	60	14.8	---	---

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6.9 Dynamic Frequency Selection

6.9.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	30%	101.5kPa

6.9.2 Test limit

FCC Part 15.407(h) and FCC 06-96 APPENDIX “COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION”.

6.9.3 Test Procedure Used

(i) Operational Modes. The DFS requirement applies to the following operational modes:
(A) The requirement for channel availability check time applies in the master operational mode.
(B) The requirement for channel move time applies in both the master and slave operational modes.
(ii) Channel Availability Check Time. A U-NII device shall check if there is a radar system already operating on the channel before it can initiate a transmission on a channel and when it has to move to a new channel. The U-NII device may start using the channel if no radar signal with a power level greater than the interference threshold values listed in paragraph (h)(2) of this section, is detected within 60 seconds.
(iii) Channel Move Time. After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel.
(iv) Non-occupancy Period. A channel that has been flagged as containing a radar system, either by a channel availability check or in-service monitoring, is subject to a non-occupancy period of at least 30 minutes. The non-occupancy period starts at the time when the radar system is detected.

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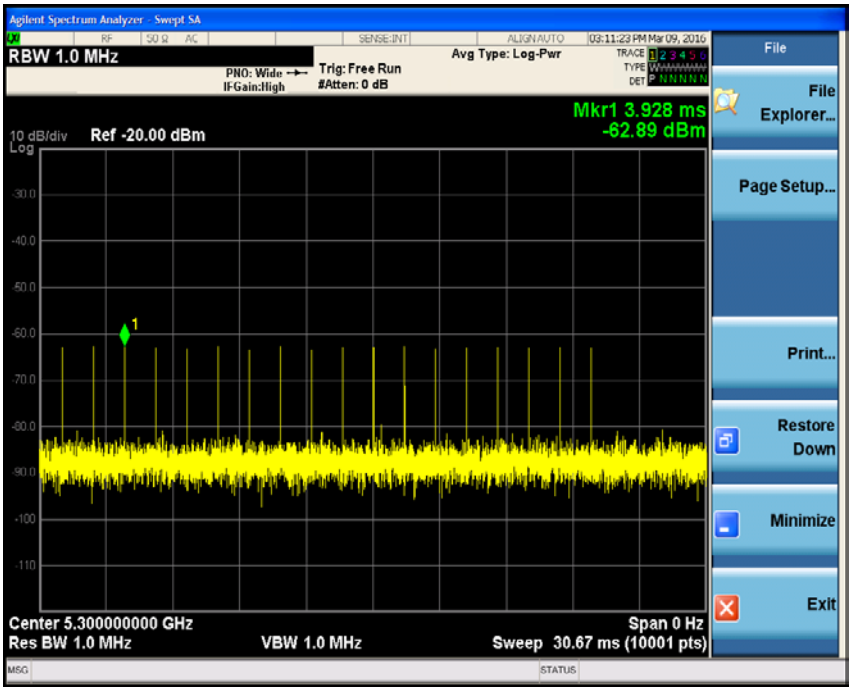
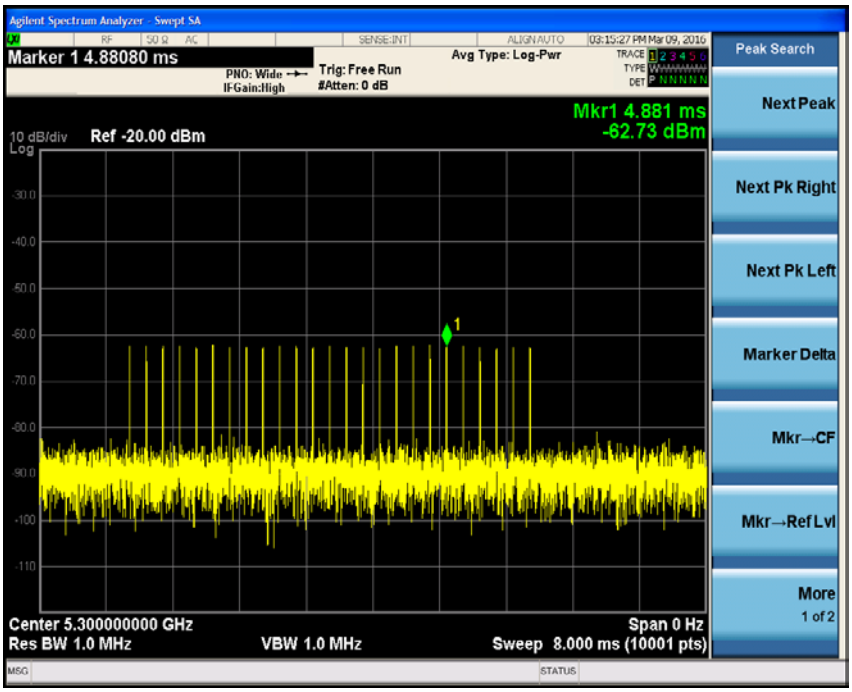
6.9.4 RADAR WAVEFORM





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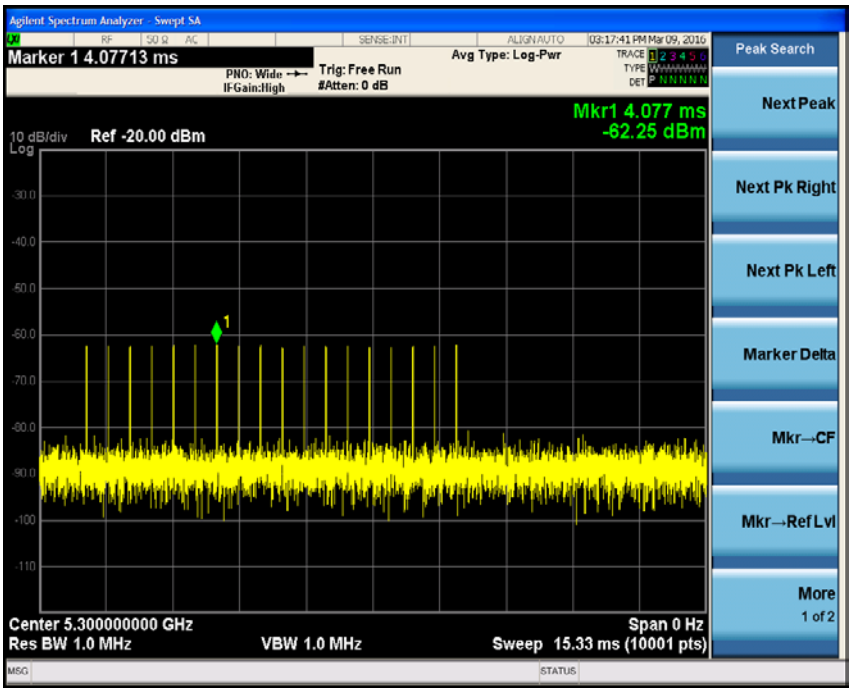

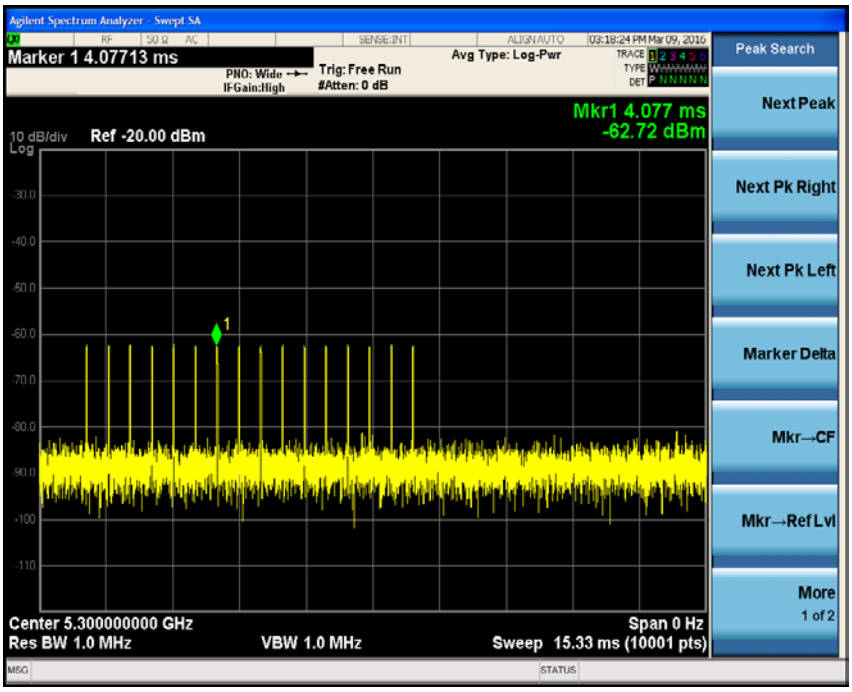

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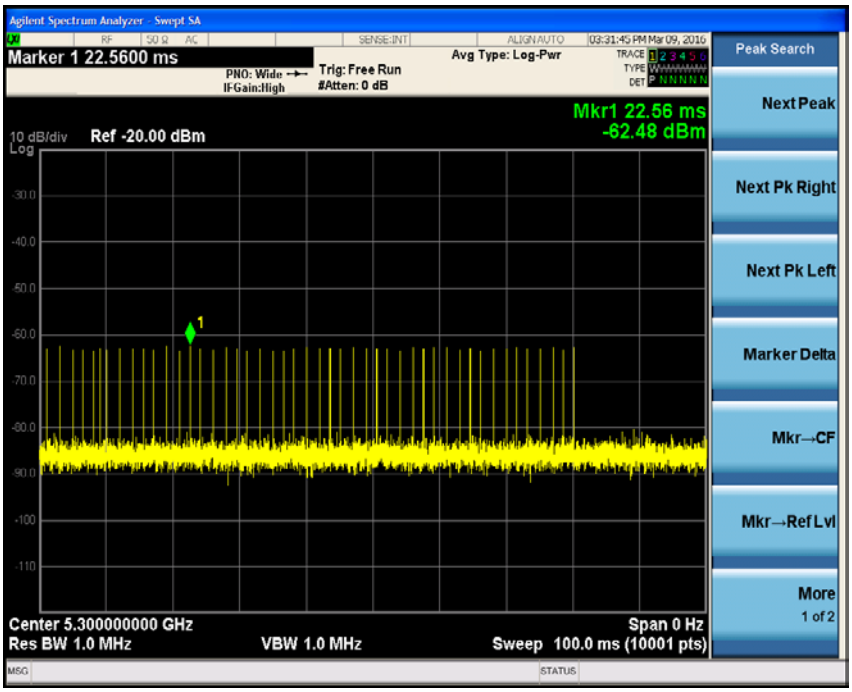

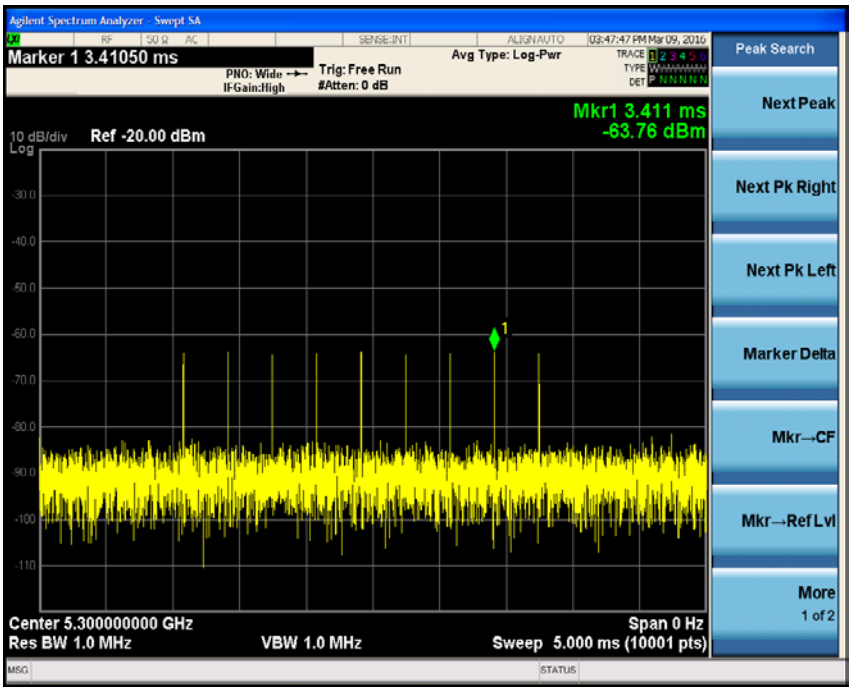

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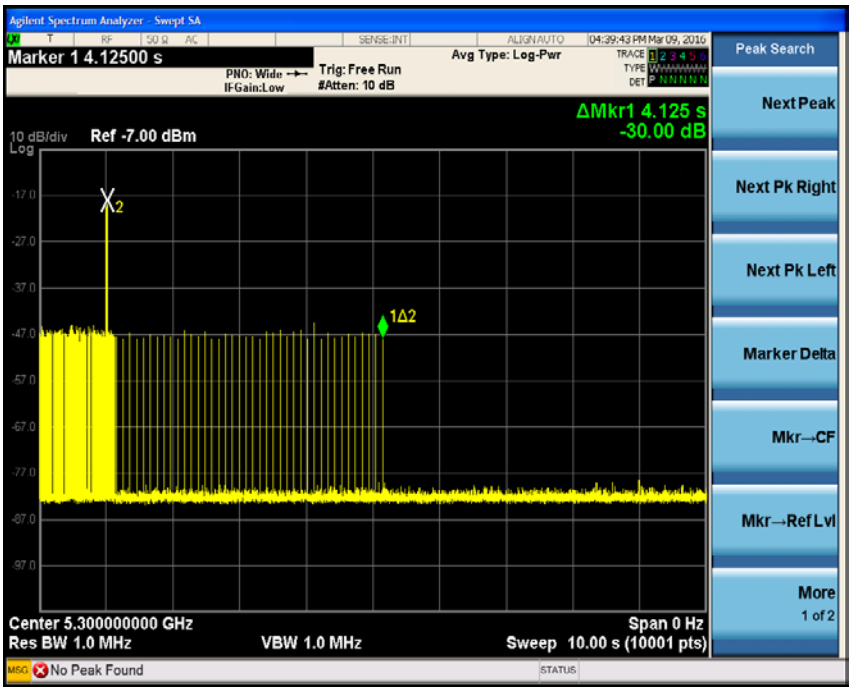
6.9.5 Test result

Channel Move Time (sec)	Limit (sec)
0.4	10

Aggregate Channel Closing Transmission Time (sec)	Limit (sec)
0.0	10



Channel Move Time

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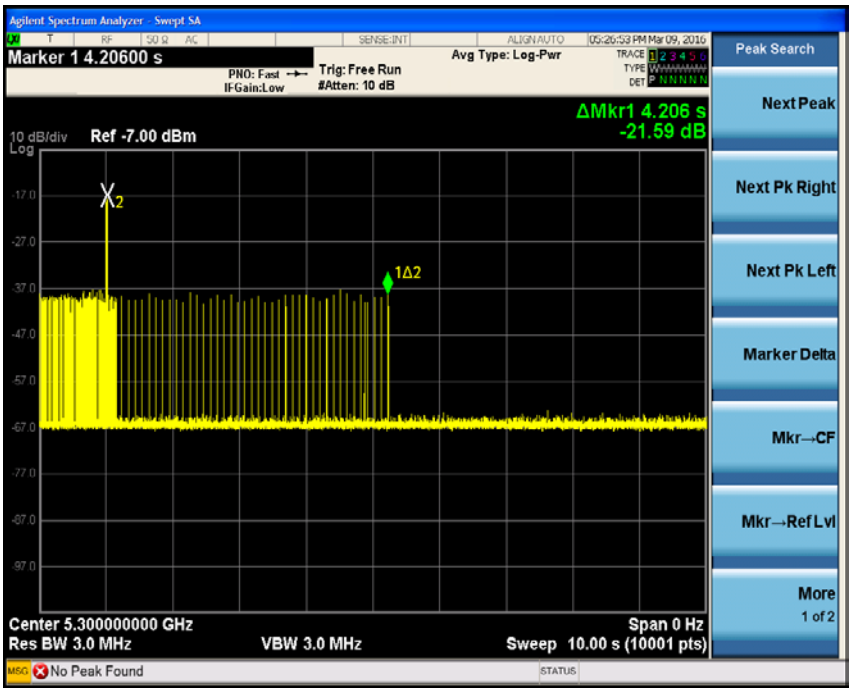

Non-occupancy Period

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7 MEASUREMENT UNCERTAINTIES

Items	Uncertainty	
Occupied Bandwidth	3kHz	
Peak power output	0.67dB	
Band edge compliance	1.20dB	
Transmitter Power Spectral Density	0.75dB	
Spurious emissions	30MHz～1GHz	2.83dB
	1GHz～12.75GHz	2.50dB
	12.75GHz～40GHz	2.75dB

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8 TEST EQUIPMENTS

No.	Name/Model	Manufacturer	S/N	Cal Due date
1.	Spectrum Analyzer FSV	ROHDE&SCHWARZ	101065	2016.08.20
2.	Attenuation 6810.17.B	HUBER+SUHNER	768710	2016.08.20
3.	Cable 104EA	SUCOFLEX	9272/4EA	2016.08.20
4.	Cable 104EA	SUCOFLEX	9266/4EA	2016.08.20
5.	Power Meter E4416A	Agilent	MY52370013	2017.03.01
6.	Peak Power Sensor E9327A	Agilent	MY52420006	2017.03.01
7.	12.65m×8.03m×7.50m Fully-Anechoic Chamber	FRANKONIA	-----	-----
8.	23.18m×16.88m×9.60m Semi-Anechoic Chamber	FRANKONIA	---	-----
9.	Turn table Diameter:1m	HD	-----	-----
10.	Turn table Diameter:5m	HD	-----	-----
11.	Antenna master FAC(MA4.0)	MATURO	-----	-----
12.	Antenna master SAC(MA4.0)	MATURO	-----	-----
13.	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	-----
14.	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	2016.08.20
15.	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100029	2016.08.20
16.	HL562 Ultra log antenna	R&S	100016	2016.08.20
17.	3160-09 Receive antenna	SCHWARZ-BECK	002058-002	2016.08.20
18.	ESI 40 EMI test receiver	R&S	100015	2016.08.20
19.	Radio tester	CMU 200	114667	2016.08.20
20.	ESCS30 EMI test receiver	R&S	100029	2016.08.20
21.	HL562 Receive antenna	R&S	100167	2016.08.20
22.	ESH3-Z5 LISN	R&S	100020	2016.08.20

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APPENDIX

Appendix Test Setup

---End of Test Report---

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