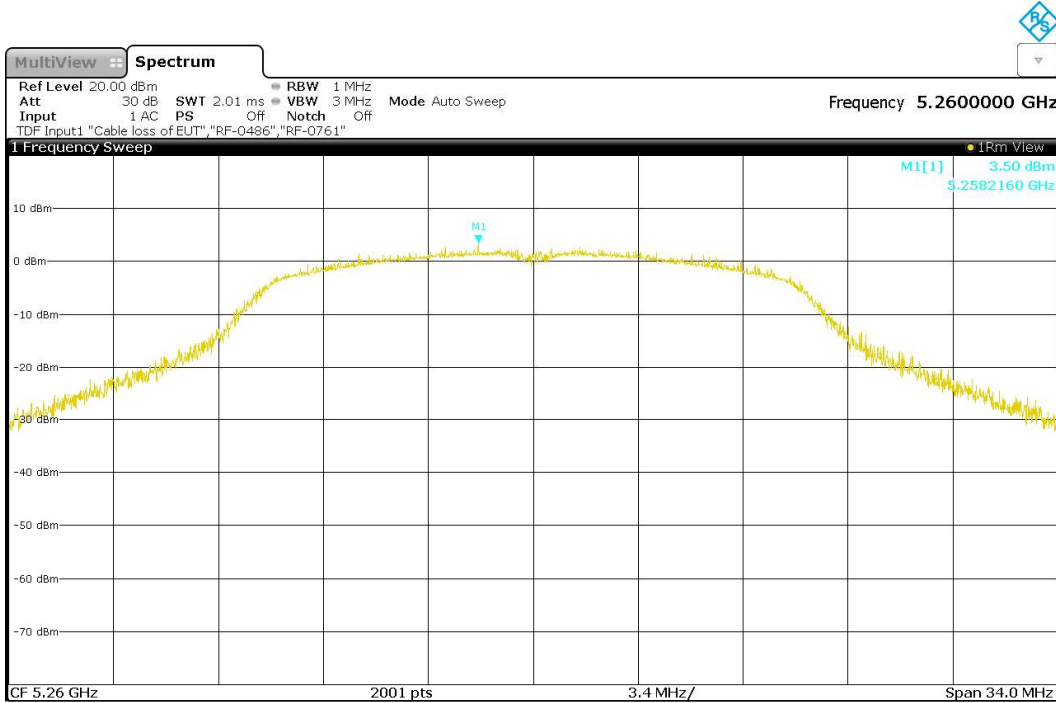


Figure 76: Maximum Power Spectral Density, 802.11n (20HT), 5260MHz



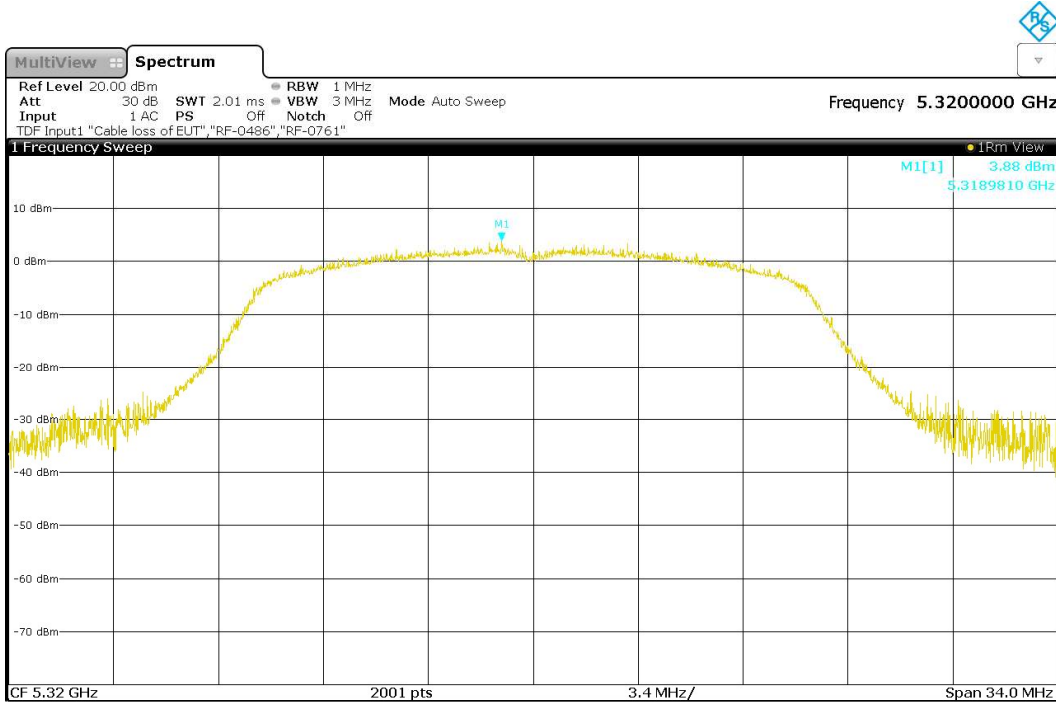
09:11:00 26.01.2021

Figure 77: Maximum Power Spectral Density, 802.11n (20HT), 5300MHz



09:09:58 26.01.2021

Figure 78: Maximum Power Spectral Density, 802.11n (20HT), 5320MHz



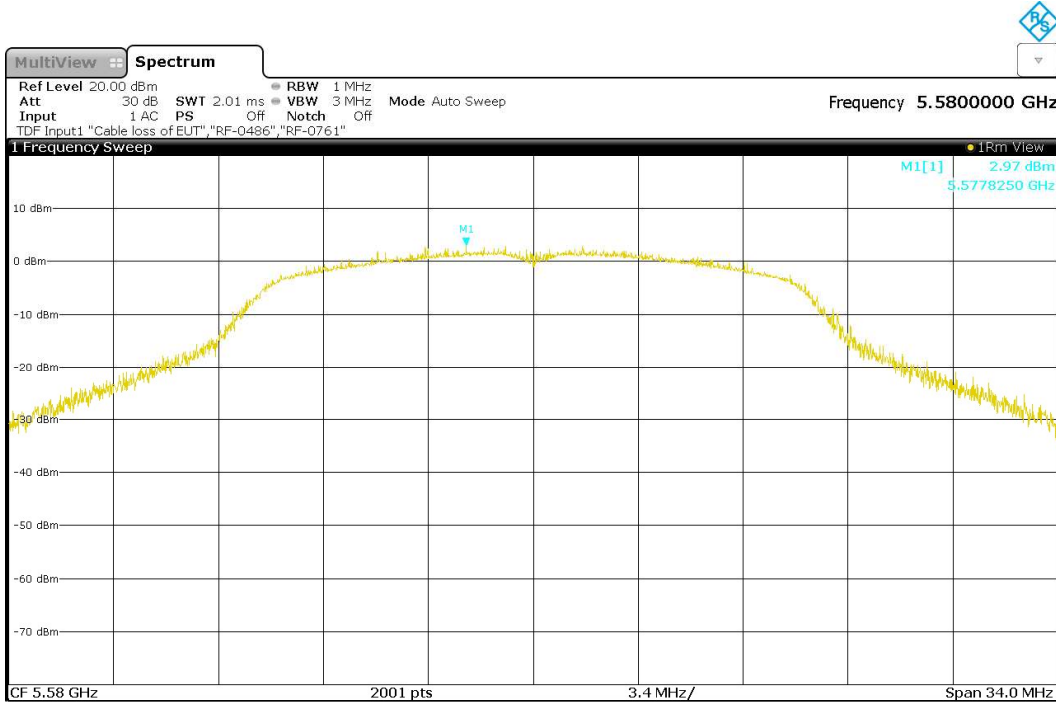
09:08:49 26.01.2021

Figure 79: Maximum Power Spectral Density, 802.11n (20HT), 5500MHz



09:07:40 26.01.2021

Figure 80: Maximum Power Spectral Density, 802.11n (20HT), 5580MHz



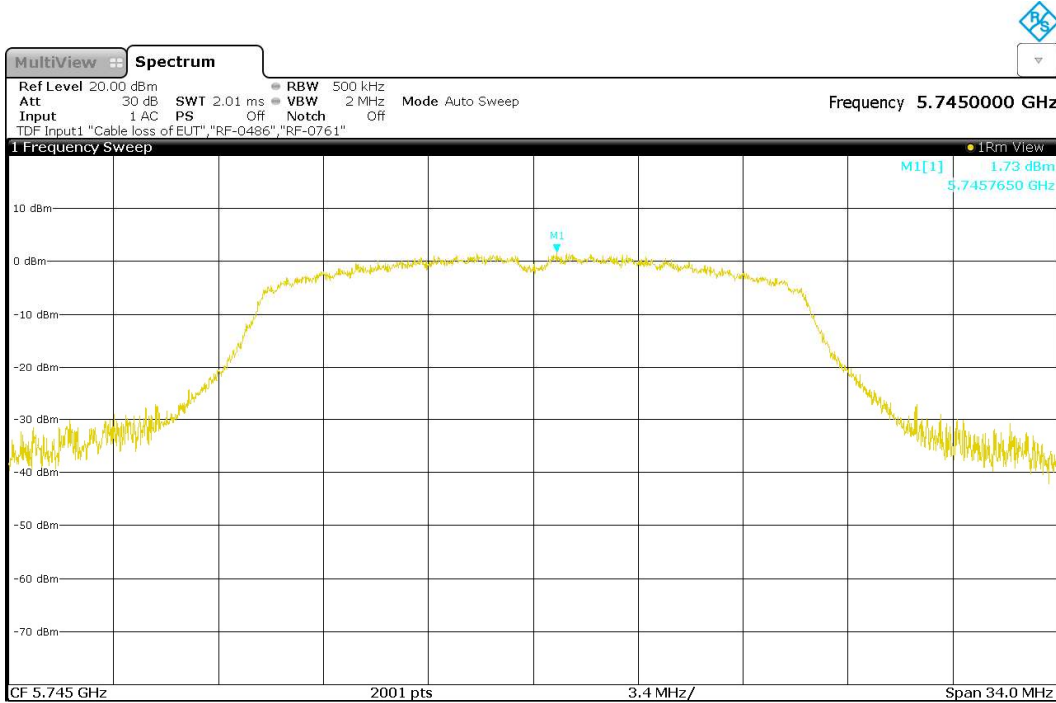
09:06:24 26.01.2021

Figure 81: Maximum Power Spectral Density, 802.11n (20HT), 5700MHz



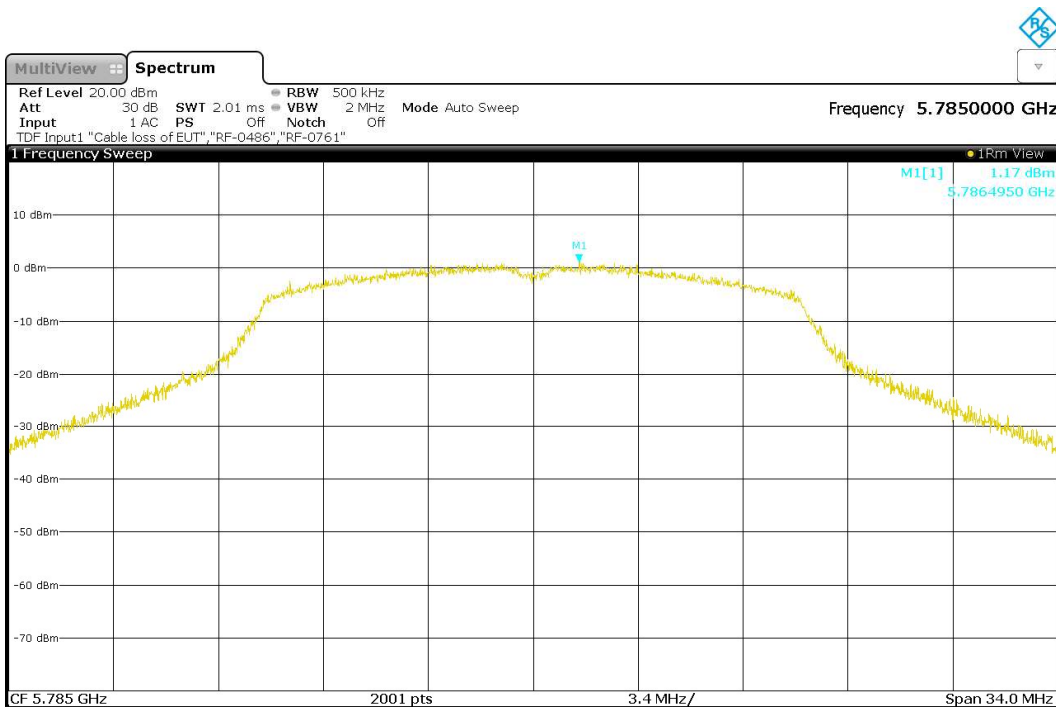
09:05:25 26.01.2021

Figure 82: Maximum Power Spectral Density, 802.11n (20HT), 5745MHz



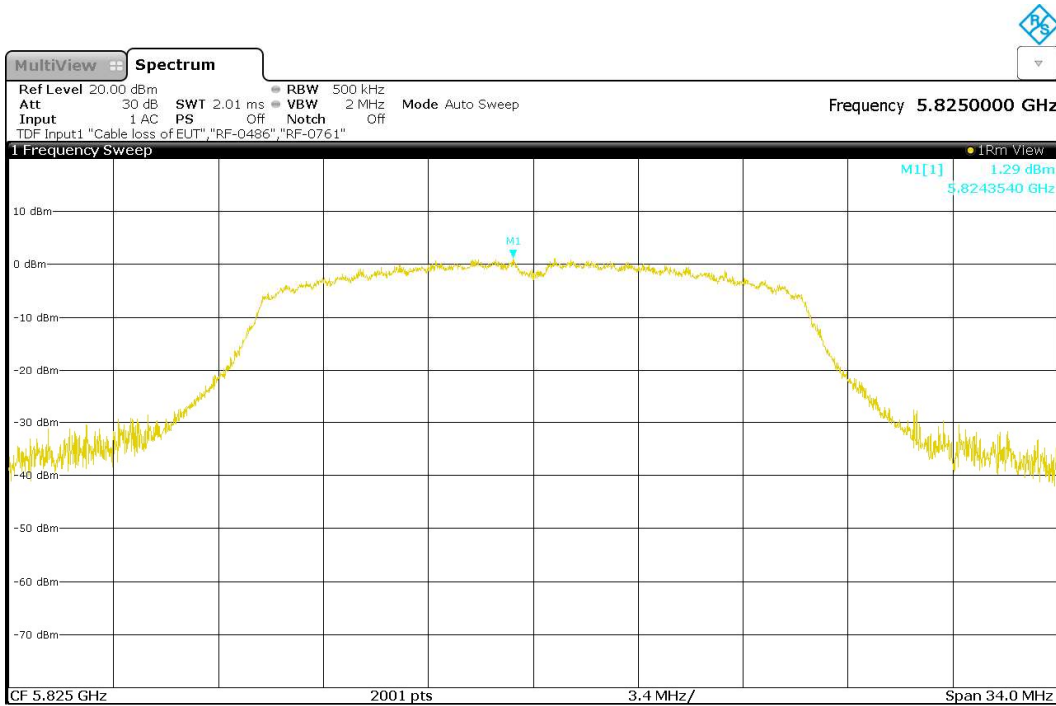
09:04:06 26.01.2021

Figure 83: Maximum Power Spectral Density, 802.11n (20HT), 5785MHz



09:02:52 26.01.2021

Figure 84: Maximum Power Spectral Density, 802.11n (20HT), 5825MHz

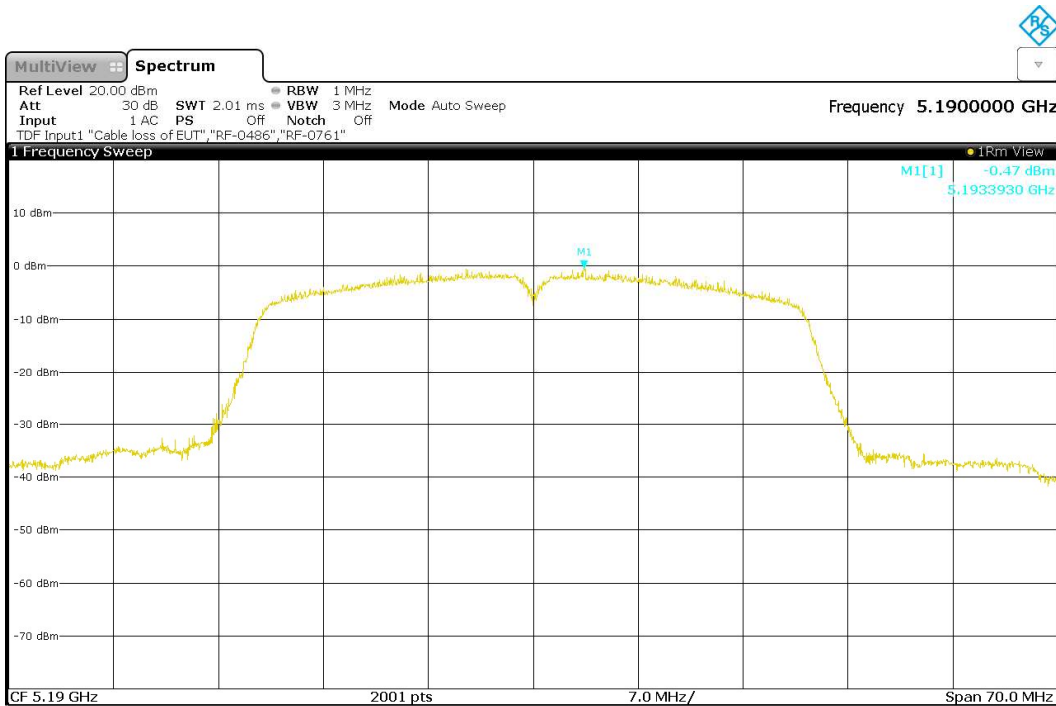


09:00:50 26.01.2021

Table 23: Maximum Power Spectral Density, 802.11n (40HT)

Operating Frequency [MHz]	Reading [dBm]	Duty Factor [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
5190	-0.47	2.58	2.11	11	8.89
5230	-0.75	2.58	1.83	11	9.17
5270	-0.57	2.58	2.01	11	8.99
5310	-0.53	2.58	2.05	11	8.95
5510	-0.33	2.58	2.25	11	8.75
5550	-0.20	2.58	2.38	11	8.62
5670	-0.23	2.58	2.35	11	8.65
5755	-2.13	2.58	0.45	11	10.55
5795	-2.72	2.58	-0.14	11	11.14

Figure 85: Maximum Power Spectral Density, 802.11n (40HT), 5190MHz



09:18:04 26.01.2021

Figure 86: Maximum Power Spectral Density, 802.11n (40HT), 5230MHz



09:19:27 26.01.2021

Figure 87: Maximum Power Spectral Density, 802.11n (40HT), 5270MHz



09:20:29 26.01.2021

Figure 88: Maximum Power Spectral Density, 802.11n (40HT), 5310MHz



09:21:36 26.01.2021

Figure 89: Maximum Power Spectral Density, 802.11n (40HT), 5510MHz



09:22:49 26.01.2021

Figure 90: Maximum Power Spectral Density, 802.11n (40HT), 5550MHz



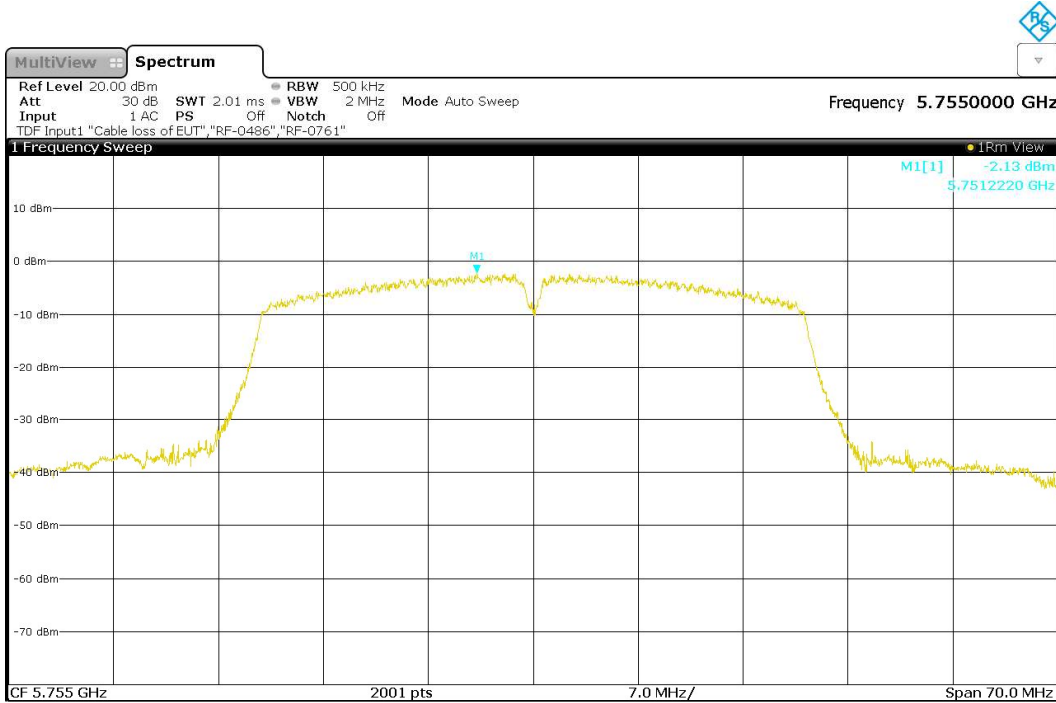
09:24:13 26.01.2021

Figure 91: Maximum Power Spectral Density, 802.11n (40HT), 5670MHz



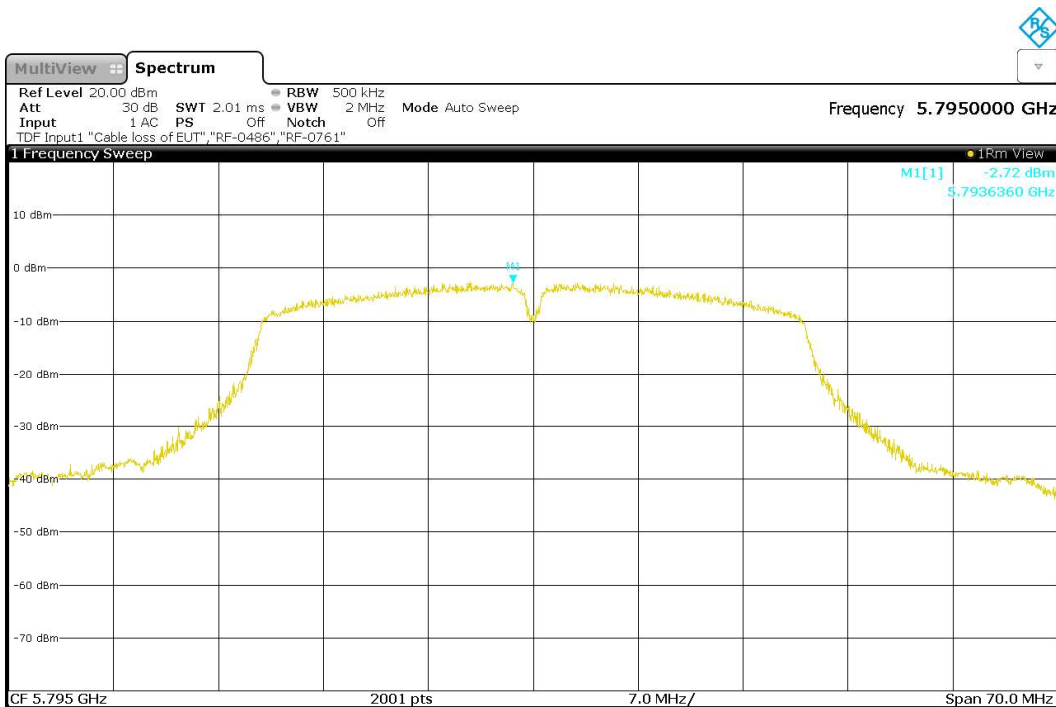
09:25:27 26.01.2021

Figure 92: Maximum Power Spectral Density, 802.11n (40HT), 5755MHz



09:26:57 26.01.2021

Figure 93: Maximum Power Spectral Density, 802.11n (40HT), 5795MHz



09:28:11 26.01.2021

5.2.6 Duty Cycle

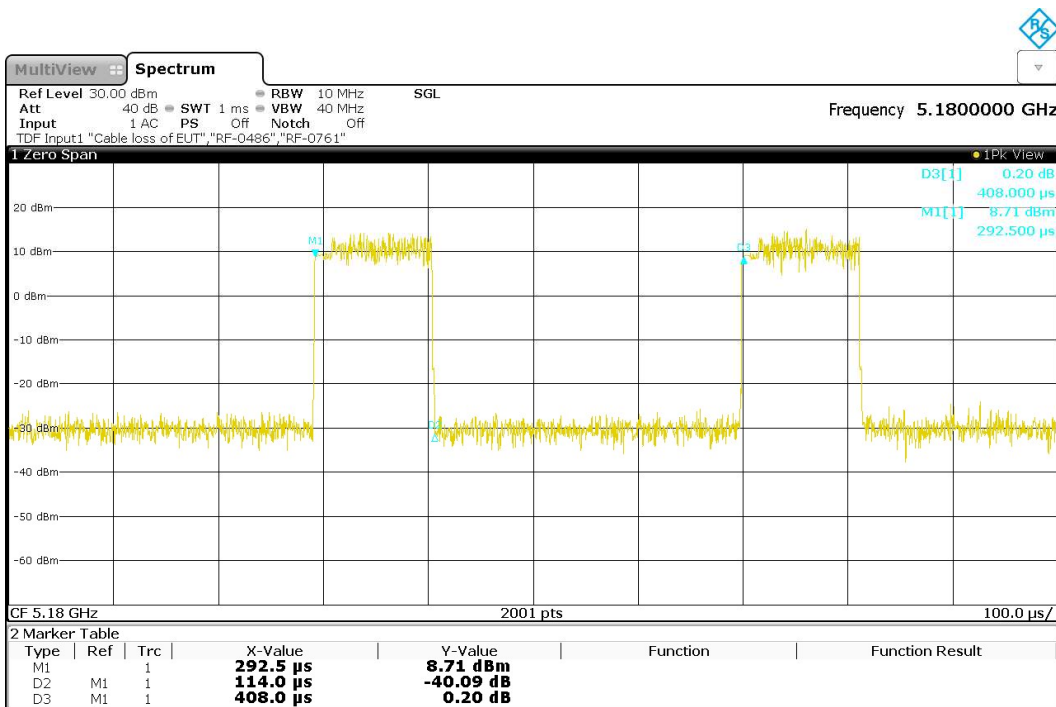
Date of testing: 2021-01-26
 Ambient temperature: 22°C
 Relative humidity: 52%
 Atmospheric pressure: 1019hPa

Table 24: Duty Cycle

Radio	Data Rate	On-Time [us]	Period [us]	Duty Cycle	Duty Factor [dB]
802.11a	48Mbps	114.0	408.0	27.9%	5.54
802.11n (20HT)	MCS2	259.0	561.0	46.2%	3.36
802.11n (40HT)	MCS1	200.0	501.0	39.9%	3.99

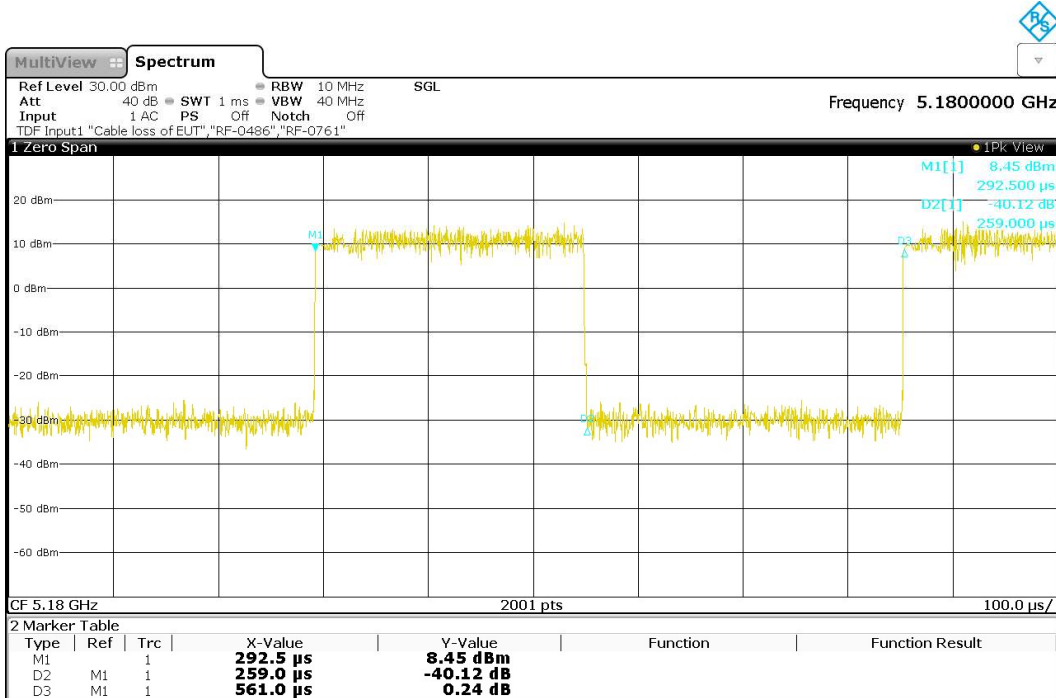
Note: Duty Factor = 10 x log (1 / Duty Cycle)

Figure 94: Duty Cycle, 802.11a, 5180MHz



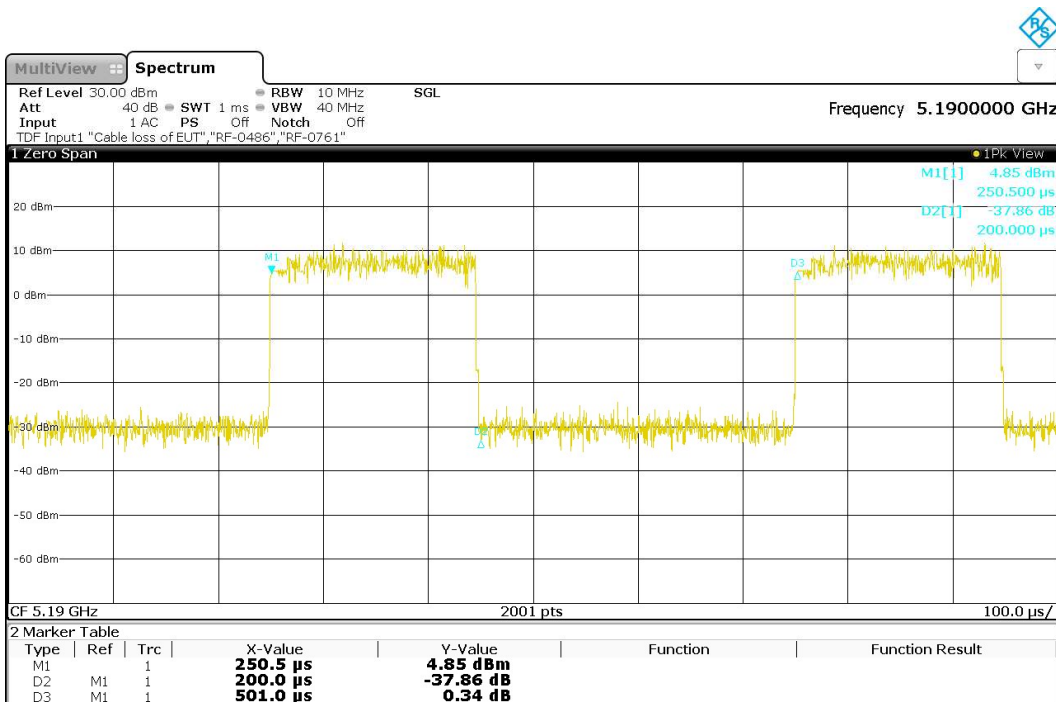
16:19:07 26.01.2021

Figure 95: Duty Cycle, 802.11n (20HT), 5180MHz



16:22:23 26.01.2021

Figure 96: Duty Cycle, 802.11n (40HT), 5190MHz



16:25:12 26.01.2021

5.3 Radiated Measurements

5.3.1 Radiated Spurious Emissions of Transmitter and Band Edge

RESULT:

PASS

Date of testing: 2021-01-13, 2021-01-14 2021-01-15,
2021-01-18

Ambient temperature: 22, 25, 25, 22°C
Relative humidity: 49, 51, 52, 37%
Atmospheric pressure: 1010, 1013, 1020, 1013hPa

Frequency range: 9kHz - 40GHz
Measurement distance: 3m
Kind of test site: Semi Anechoic Chamber

Requirements:

FCC 15.205, FCC 15.209, FCC 15.407(b).

Radiated emissions which fall in the restricted bands, as defined in FCC 15.205(a), must comply with the radiated emission limits specified in FCC 15.209(a).

Radiated emissions which fall outside the operation frequency band and outside restricted bands shall meet the following:

- (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 shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Test procedure:

ANSI C63.10:2013 §12.7

The EUT was placed on a nonconductive turntable. The table height was 0.8m for measurements below 1GHz and 1.5m for measurements above 1GHz. Before final measurements of radiated emissions were performed, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system,

the associated cabling were varied in order to ensure that maximum emission amplitudes were attained.

The spectrum was examined from 9kHz to the 10th harmonic of the highest fundamental transmitter frequency (40GHz). Final radiated emission measurements were made at 3m distance.

At each frequency where a spurious emission was found, the EUT was rotated 360° in order to determine the emission's maximum level. For frequencies above 30MHz, the antenna was raised and lowered from 1 to 4m and measurements were taken using both horizontal and vertical antenna polarizations.

For emissions between 30MHz and 1GHz, measurements were performed with a test receiver operating in the CISPR quasi-peak detection. For emissions above 1GHz, measurements were performed with a spectrum analyzer using the Peak and Average detector.

Absorbers have been placed on the floor between the EUT and the measuring antenna for testing above 1GHz.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned are small or not detectable.

Measurement below 1GHz was performed on 802.11n (20HT), 5745MHz only, since it has the highest Maximum Conducted Output Power.

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Table 25: Radiated Emissions, Quasi Peak Data, 9kHz - 30MHz, 802.11n (20HT), 5745MHz

Freq. [MHz]	Antenna Orientation	Reading QP [dBµV]	Factor [dB(1/m)]	Level QP [dBµV/m]	Limit [dBµV/m]	Margin QP [dB]	Height [cm]	Angle [°]
1.136	V	17.7	19.8	37.5	66.5	29.0	100	53

Note: Level QP = Reading QP + Factor

Table 26: Radiated Emissions, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5745MHz

Freq. [MHz]	Antenna Orientation	Reading QP [dBµV]	Factor [dB(1/m)]	Level QP [dBµV/m]	Limit [dBµV/m]	Margin QP [dB]	Height [cm]	Angle [°]
39.054	V	39.7	-22.2	17.5	40.0	22.5	100	105
70.720	V	39.7	-23.3	16.4	40.0	23.6	101	174
78.083	H	38.5	-25.2	13.3	40.0	26.7	309	6
121.385	V	42.0	-23.0	19.0	43.5	24.5	101	4
252.785	H	39.7	-21.5	18.2	46.0	27.8	144	298
353.348	H	41.0	-17.9	23.1	46.0	22.9	105	359
505.592	H	40.9	-14.0	26.9	46.0	19.1	165	63
505.718	V	38.6	-14.1	24.5	46.0	21.5	101	77
538.202	V	36.2	-13.0	23.2	46.0	22.8	100	88
702.996	H	43.9	-10.9	33.0	46.0	13.0	122	319
702.999	V	42.0	-10.6	31.4	46.0	14.6	101	148

Note: Level QP = Reading QP + Factor

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Table 27: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5180MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7484.211	H	51.5	-2.9	48.6	74.0	25.4	225	10
7498.730	V	51.4	-2.8	48.6	74.0	25.4	225	141
10359.980	V	55.4	-7.5	47.9	68.2	20.3	144	183
10360.010	H	57.3	-7.5	49.8	68.2	18.4	118	164
15540.000	V	52.7	-4.8	47.9	74.0	26.1	108	111
15540.000	H	51.7	-4.8	46.9	74.0	27.1	148	124

Note: Level PK = Reading PK + Factor

Table 28: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5180MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7484.211	H	38.1	-2.9	3.4	38.6	54.0	15.4	225	10
7498.730	V	37.9	-2.8	3.4	38.5	54.0	15.5	225	141
15540.000	V	38.8	-4.8	3.4	37.4	54.0	16.6	108	111
15540.000	H	38.7	-4.8	3.4	37.3	54.0	16.7	148	124

Note: Level AV = Reading AV + Factor + Duty Factor

Table 29: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5260MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7013.229	H	57.6	-4.5	53.1	68.2	15.1	100	354
7478.069	V	51.6	-2.9	48.7	74.0	25.3	265	5
7509.791	H	51.1	-2.9	48.2	74.0	25.8	104	224
10520.030	H	57.1	-6.6	50.5	68.2	17.7	156	178
10520.040	V	56.8	-6.6	50.2	68.2	18.0	195	236
15778.020	H	50.9	-4.3	46.6	74.0	27.4	100	84
15780.050	V	51.9	-4.3	47.6	74.0	26.4	173	70

Note: Level PK = Reading PK + Factor

Table 30: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5260MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7478.069	V	38.1	-2.9	3.4	38.6	54.0	15.4	265	5
7509.791	H	37.8	-2.9	3.4	38.3	54.0	15.7	104	224
15778.020	H	37.8	-4.3	3.4	36.9	54.0	17.1	100	84
15780.050	V	38.3	-4.3	3.4	37.4	54.0	16.6	173	70

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 31: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5320MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7289.935	H	52.2	-3.3	48.9	74.0	25.1	258	155
7296.171	V	52.0	-3.3	48.7	74.0	25.3	234	261
7490.204	H	51.4	-2.8	48.6	74.0	25.4	198	178
10639.970	H	54.6	-4.9	49.7	74.0	24.3	170	178
10640.030	V	54.1	-4.9	49.2	74.0	24.8	195	106
15957.250	H	51.2	-4.5	46.7	74.0	27.3	190	114
15961.470	V	51.7	-4.5	47.2	74.0	26.8	122	72

Note: Level PK = Reading PK + Factor

Table 32: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5320MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7289.935	H	38.9	-3.3	3.4	39.0	54.0	15.0	258	155
7296.171	V	38.9	-3.3	3.4	39.0	54.0	15.0	234	261
7490.204	H	38.1	-2.8	3.4	38.7	54.0	15.3	198	178
10639.970	H	44.3	-4.9	3.4	42.8	54.0	11.2	170	178
10640.030	V	43.6	-4.9	3.4	42.1	54.0	11.9	195	106
15957.250	H	38.1	-4.5	3.4	37.0	54.0	17.0	190	114
15961.470	V	38.1	-4.5	3.4	37.0	54.0	17.0	122	72

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 33: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5500MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7333.410	H	55.2	-3.4	51.8	74.0	22.2	194	18
7333.478	V	53.7	-3.4	50.3	74.0	23.7	214	248
10999.830	V	52.4	-5.9	46.5	74.0	27.5	116	158
11000.030	H	54.8	-5.9	48.9	74.0	25.1	129	100
16500.020	H	53.2	-5.5	47.7	68.2	20.5	190	132
16500.800	V	51.9	-5.5	46.4	68.2	21.8	100	38

Note: Level PK = Reading PK + Factor

Table 34: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5500MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7333.410	H	43.2	-3.4	3.4	43.2	54.0	10.8	194	18
7333.478	V	41.3	-3.4	3.4	41.3	54.0	12.7	214	248
10999.830	V	39.7	-5.9	3.4	37.2	54.0	16.8	116	158
11000.030	H	43.6	-5.9	3.4	41.1	54.0	12.9	129	100

Note: Level AV = Reading AV + Factor + Duty Factor

Table 35: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5580MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7440.000	V	51.9	-3.4	48.5	74.0	25.5	162	306
7440.160	H	52.2	-3.4	48.8	74.0	25.2	278	311
11159.980	H	54.2	-5.4	48.8	74.0	25.2	200	90
11160.040	V	52.3	-5.4	46.9	74.0	27.1	153	120
16740.750	V	51.1	-4.7	46.4	68.2	21.8	196	198
16740.880	H	51.3	-4.7	46.6	68.2	21.6	200	94

Note: Level PK = Reading PK + Factor

Table 36: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5580MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7440.000	V	38.9	-3.4	3.4	38.9	54.0	15.1	162	306
7440.160	H	39.8	-3.4	3.4	39.8	54.0	14.2	278	311
11159.980	H	42.3	-5.4	3.4	40.3	54.0	13.7	200	90
11160.040	V	40.2	-5.4	3.4	38.2	54.0	15.8	153	120

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 37: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5700MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7599.989	V	54.2	-3.7	50.5	74.0	23.5	198	257
7600.297	H	56.1	-3.7	52.4	74.0	21.6	188	16
11399.980	V	55.6	-6.6	49.0	74.0	25.0	134	97
11400.010	H	53.7	-6.6	47.1	74.0	26.9	170	108
17099.550	V	51.7	-4.7	47.0	68.2	21.2	200	48
17100.090	H	53.5	-4.6	48.9	68.2	19.3	200	128

Note: Level PK = Reading PK + Factor

Table 38: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5700MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7599.989	V	42.4	-3.7	3.4	42.1	54.0	11.9	198	257
7600.297	H	45.1	-3.7	3.4	44.8	54.0	9.2	188	16
11399.980	V	44.7	-6.6	3.4	41.5	54.0	12.5	134	97
11400.010	H	44.6	-6.6	3.4	41.4	54.0	12.6	170	108

Note: Level AV = Reading AV + Factor + Duty Factor

Table 39: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5745MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7659.988	H	56.8	-3.7	53.1	74.0	20.9	153	275
11489.920	H	53.4	-6.9	46.5	74.0	27.5	200	120
11490.020	V	53.7	-6.9	46.8	74.0	27.2	183	108
17233.980	V	51.3	-4.4	46.9	68.2	21.3	200	38
17234.720	H	52.3	-4.4	47.9	68.2	20.3	156	119

Note: Level PK = Reading PK + Factor

Table 40: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5745MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7659.988	H	46.3	-3.7	3.4	46.0	54.0	8.0	153	275
11489.920	H	44.5	-6.9	3.4	41.0	54.0	13.0	200	120
11490.020	V	44.5	-6.9	3.4	41.0	54.0	13.0	183	108

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 41: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5785MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7713.405	H	56.4	-3.7	52.7	74.0	21.3	144	282
11569.950	H	53.7	-6.7	47.0	74.0	27.0	170	105
11570.080	V	52.8	-6.7	46.1	74.0	27.9	177	149
17354.230	H	51.8	-4.5	47.3	68.2	20.9	100	126
17354.640	V	51.8	-4.5	47.3	68.2	20.9	200	98

Note: Level PK = Reading PK + Factor

Table 42: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5785MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7713.405	H	45.0	-3.7	3.4	44.7	54.0	9.3	144	282
11569.950	H	45.4	-6.7	3.4	42.1	54.0	11.9	170	105
11570.080	V	43.6	-6.7	3.4	40.3	54.0	13.7	177	149

Note: Level AV = Reading AV + Factor + Duty Factor

Table 43: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5825MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
5541.068	V	56.0	-9.2	46.8	68.2	21.4	163	4
7826.952	H	52.1	-3.1	49.0	68.2	19.2	251	74
11649.890	H	53.4	-6.3	47.1	74.0	26.9	198	118
11650.050	V	53.3	-6.3	47.0	74.0	27.0	131	359
17475.250	H	51.4	-4.4	47.0	68.2	21.2	100	86
17475.500	V	51.6	-4.4	47.2	68.2	21.0	176	102

Note: Level PK = Reading PK + Factor

Table 44: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (20HT), 5825MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
5541.068	V	41.7	-9.2	3.4	35.9	500.0	464.1	163	4
7826.952	H	38.8	-3.1	3.4	39.1	500.0	460.9	251	74
11649.890	H	44.1	-6.3	3.4	41.2	54.0	12.8	198	118
11650.050	V	44.7	-6.3	3.4	41.8	54.0	12.2	131	359

Note: Level AV = Reading AV + Factor + Duty Factor

Table 45: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5190MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7317.890	H	52.5	-3.3	49.2	74.0	24.8	183	308
7489.820	V	51.7	-2.8	48.9	74.0	25.1	177	253
10379.970	V	55.6	-7.4	48.2	68.2	20.0	139	81
10380.030	H	56.2	-7.4	48.8	68.2	19.4	188	178
15570.000	H	51.6	-4.8	46.8	74.0	27.2	126	183
15570.000	V	51.4	-4.8	46.6	74.0	27.4	168	188

Note: Level PK = Reading PK + Factor

Table 46: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5190MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7317.890	H	38.8	-3.3	4.0	39.5	54.0	14.5	183	308
7489.820	V	38.1	-2.8	4.0	39.3	54.0	14.7	177	253
15570.000	H	38.5	-4.8	4.0	37.7	54.0	16.3	126	183
15570.000	V	38.4	-4.8	4.0	37.6	54.0	16.4	168	188

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 47: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5270MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7026.414	H	56.6	-4.4	52.2	68.2	16.0	100	348
7326.117	V	51.7	-3.3	48.4	74.0	25.6	298	246
7439.029	H	51.8	-3.2	48.6	74.0	25.4	226	334
7832.803	V	52.4	-3.1	49.3	68.2	18.9	233	354
10539.970	H	52.7	-6.4	46.3	68.2	21.9	131	101
10540.050	V	52.6	-6.4	46.2	68.2	22.0	190	235
15813.520	V	51.0	-4.3	46.7	74.0	27.3	177	104
15814.280	H	51.2	-4.3	46.9	74.0	27.1	155	340

Note: Level PK = Reading PK + Factor

Table 48: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5270MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7026.414	H	44.5	-4.4	4.0	44.1	500.0	455.9	100	348
7326.117	V	38.8	-3.3	4.0	39.5	54.0	14.5	298	246
7439.029	H	38.4	-3.2	4.0	39.2	54.0	14.8	226	334
7832.803	V	38.9	-3.1	4.0	39.8	500.0	460.2	233	354
15813.520	V	37.8	-4.3	4.0	37.5	54.0	16.5	177	104

Note: Level AV = Reading AV + Factor + Duty Factor

Table 49: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5310MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7080.363	H	55.5	-4.2	51.3	68.2	16.9	122	271
7497.723	V	51.0	-2.8	48.2	74.0	25.8	167	130
7600.299	H	52.6	-3.6	49.0	74.0	25.0	258	63
10619.980	V	54.5	-5.2	49.3	74.0	24.7	100	96
10620.090	H	53.8	-5.2	48.6	74.0	25.4	200	180
15928.830	V	51.5	-4.4	47.1	74.0	26.9	200	236
15930.000	H	54.1	-4.4	49.7	74.0	24.3	200	109

Note: Level PK = Reading PK + Factor

Table 50: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5310MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7497.723	V	37.9	-2.8	4.0	39.1	54.0	14.9	167	130
7600.299	H	38.3	-3.6	4.0	38.7	54.0	15.3	258	63
10619.980	V	44.0	-5.2	4.0	42.8	54.0	11.2	100	96
10620.090	H	43.1	-5.2	4.0	41.9	54.0	12.1	200	180
15928.830	V	38.1	-4.4	4.0	37.7	54.0	16.3	200	236
15930.000	H	38.9	-4.4	4.0	38.5	54.0	15.5	200	109

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 51: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5510MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7346.945	H	54.9	-3.5	51.4	74.0	22.6	131	317
7411.406	V	52.1	-3.5	48.6	74.0	25.4	153	145
11019.980	V	51.0	-5.9	45.1	74.0	28.9	196	83
11020.060	H	52.7	-5.9	46.8	74.0	27.2	122	104
16530.020	H	51.5	-5.4	46.1	68.2	22.1	162	80
16530.080	V	52.7	-5.4	47.3	68.2	20.9	152	246

Note: Level PK = Reading PK + Factor

Table 52: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5510MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7346.945	H	42.0	-3.5	4.0	42.5	54.0	11.5	131	317
7411.406	V	38.5	-3.5	4.0	39.0	54.0	15.0	153	145
11019.980	V	39.6	-5.9	4.0	37.7	54.0	16.3	196	83
11020.060	H	42.2	-5.9	4.0	40.3	54.0	13.7	122	104

Note: Level AV = Reading AV + Factor + Duty Factor

Table 53: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5550MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7851.736	H	52.0	-3.2	48.8	68.2	19.4	225	18
11100.020	H	53.8	-5.5	48.3	74.0	25.7	196	97
11100.070	V	51.2	-5.5	45.7	74.0	28.3	156	26
16650.180	H	52.4	-5.2	47.2	68.2	21.0	177	72
16652.430	V	51.6	-5.2	46.4	68.2	21.8	159	142

Note: Level PK = Reading PK + Factor

Table 54: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5550MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7851.736	H	38.9	-3.2	4.0	39.7	500.0	460.3	225	18
11100.020	H	43.4	-5.5	4.0	41.9	54.0	12.1	196	97
11100.070	V	39.4	-5.5	4.0	37.9	54.0	16.1	156	26

Note: Level AV = Reading AV + Factor + Duty Factor

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Table 55: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5670MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7731.377	H	52.2	-3.7	48.5	74.0	25.5	184	183
11339.980	H	52.8	-6.2	46.6	74.0	27.4	144	110
11342.090	V	53.9	-6.2	47.7	74.0	26.3	155	93
17010.260	V	51.9	-4.7	47.2	68.2	21.0	167	207
17010.400	H	52.5	-4.7	47.8	68.2	20.4	133	224

Note: Level PK = Reading PK + Factor

Table 56: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5670MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7731.377	H	38.7	-3.7	4.0	39.0	54.0	15.0	184	183
11339.980	H	44.7	-6.2	4.0	42.5	54.0	11.5	144	110
11342.090	V	37.1	-6.2	4.0	34.9	54.0	19.1	155	93

Note: Level AV = Reading AV + Factor + Duty Factor

Table 57: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5755MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7673.231	H	56.8	-3.7	53.1	74.0	20.9	187	281
11509.970	V	53.6	-6.9	46.7	74.0	27.3	135	105
11510.010	H	52.8	-6.9	45.9	74.0	28.1	126	98
17264.940	V	52.8	-4.4	48.4	68.2	19.8	159	180
17265.700	H	51.9	-4.4	47.5	68.2	20.7	200	127

Note: Level PK = Reading PK + Factor

Table 58: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5755MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7673.231	H	45.4	-3.7	4.0	45.7	54.0	8.3	187	281
11509.970	V	44.2	-6.9	4.0	41.3	54.0	12.7	135	105
11510.010	H	42.8	-6.9	4.0	39.9	54.0	14.1	126	98

Note: Level AV = Reading AV + Factor + Duty Factor

Table 59: Radiated Emissions, Peak Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5795MHz

Freq. [MHz]	Antenna Orientation	Reading PK [dBµV]	Factor [dB(1/m)]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7507.776	V	52.0	-3.2	48.8	74.0	25.2	293	345
7726.227	H	54.4	-3.6	50.8	74.0	23.2	202	273
11590.010	V	52.6	-6.6	46.0	74.0	28.0	112	1
11590.030	H	53.2	-6.6	46.6	74.0	27.4	180	109
17385.008	H	52.2	-4.6	47.6	68.2	20.6	200	91
17385.070	V	51.8	-4.6	47.2	68.2	21.0	200	328

Note: Level PK = Reading PK + Factor

Table 60: Radiated Emissions, Average Data, 1 - 40GHz, Horizontal and Vertical Antenna Orientations, 802.11n (40HT), 5795MHz

Freq. [MHz]	Antenna Orientation	Reading AV [dBµV]	Factor [dB(1/m)]	Duty Factor [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7507.776	V	37.9	-3.2	4.0	38.7	54.0	15.3	293	345
7726.227	H	41.9	-3.6	4.0	42.3	54.0	11.7	202	273
11590.010	V	43.5	-6.6	4.0	40.9	54.0	13.1	112	1
11590.030	H	44.7	-6.6	4.0	42.1	54.0	11.9	180	109

Note: Level AV = Reading AV + Factor + Duty Factor

Figure 97: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (20HT), 5180MHz and 5320MHz

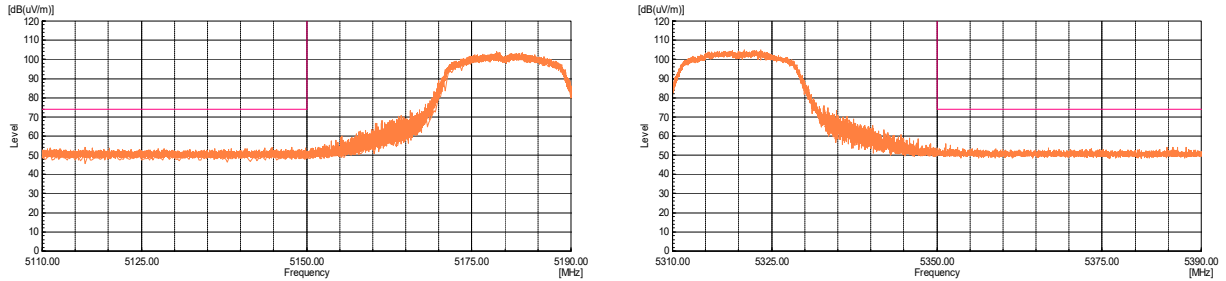


Figure 98: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (20HT), 5180MHz and 5320MHz

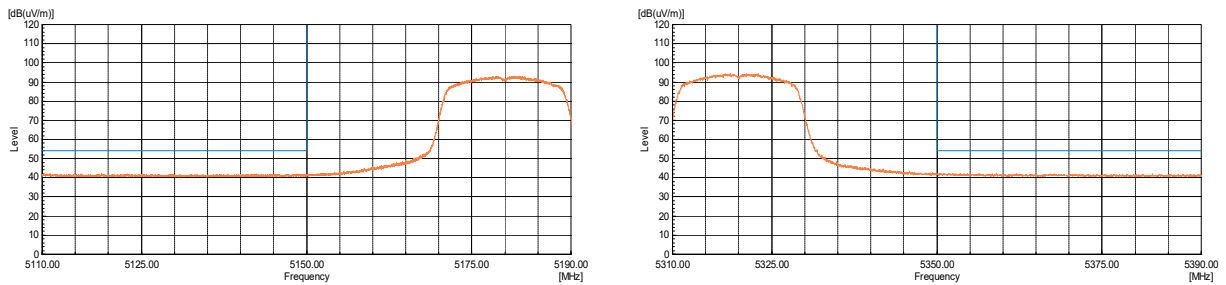


Figure 99: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (20HT), 5500MHz and 5700MHz

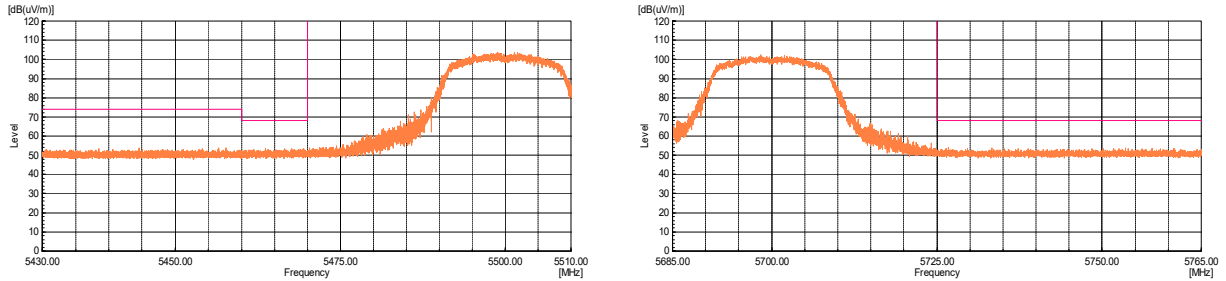


Figure 100: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (20HT), 5500MHz and 5700MHz

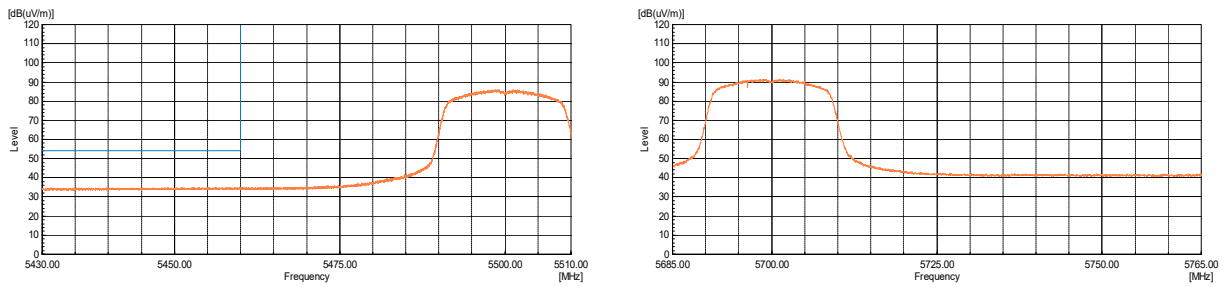


Figure 101: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (20HT), 5745MHz and 5825MHz

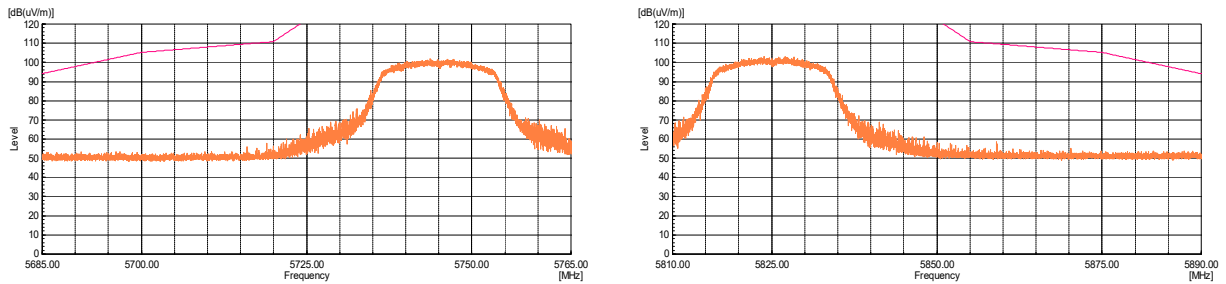


Figure 102: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (20HT), 5745MHz and 5825MHz

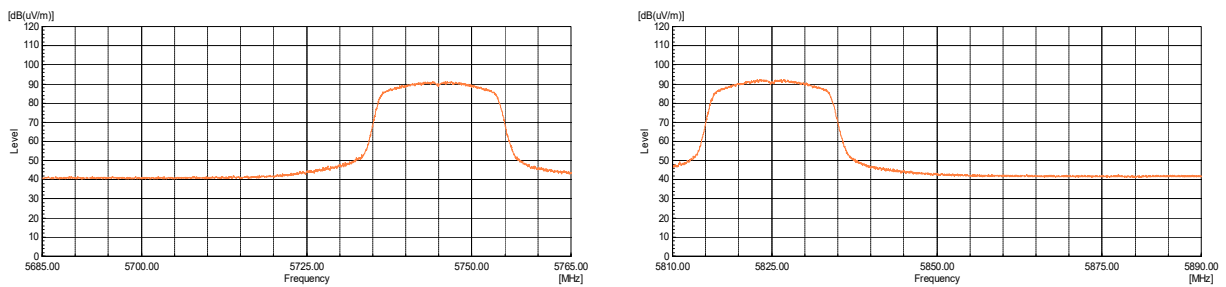


Figure 103: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (40HT), 5190MHz and 5310MHz

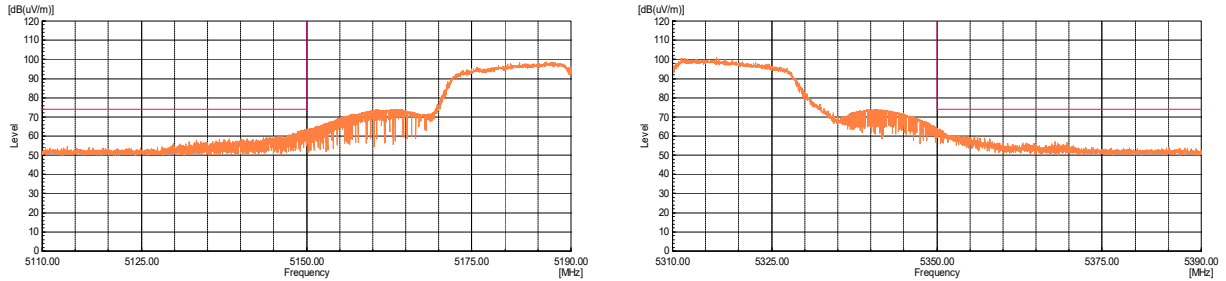


Figure 104: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (40HT), 5190MHz and 5310MHz

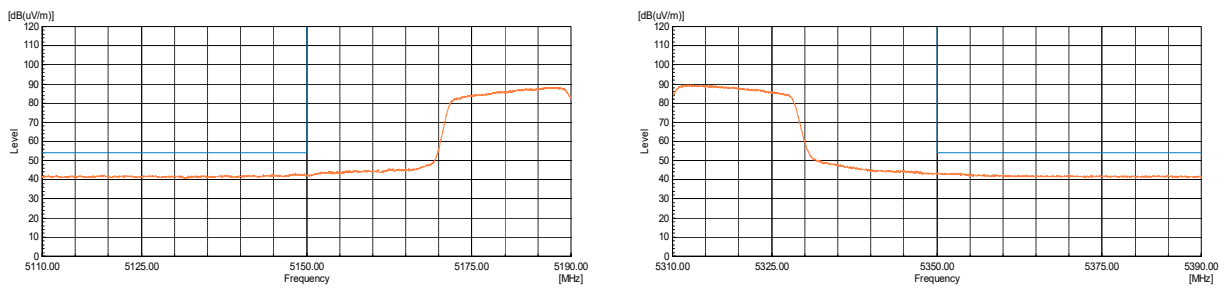


Figure 105: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (40HT), 5510MHz and 5670MHz

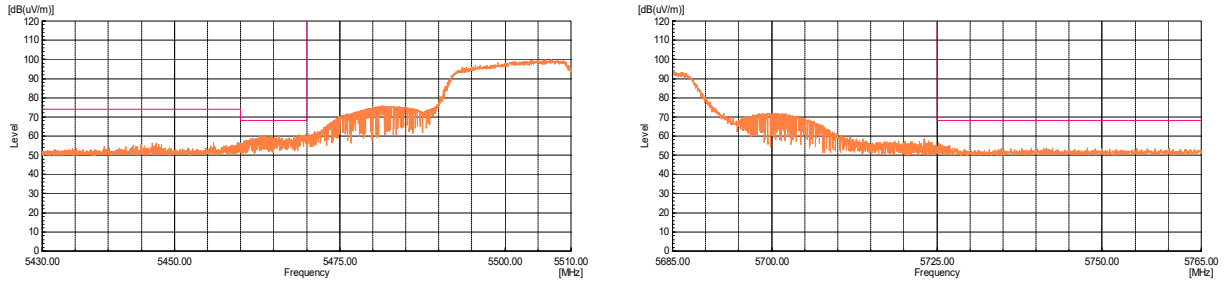


Figure 106: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (40HT), 5510MHz and 5670MHz

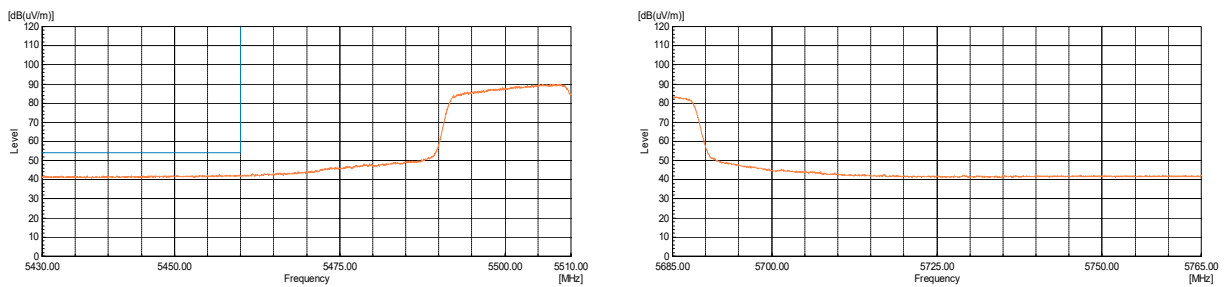


Figure 107: Radiated Emissions at Band Edge, Spectral Diagram, Peak Data, 802.11n (40HT), 5755MHz and 5795MHz

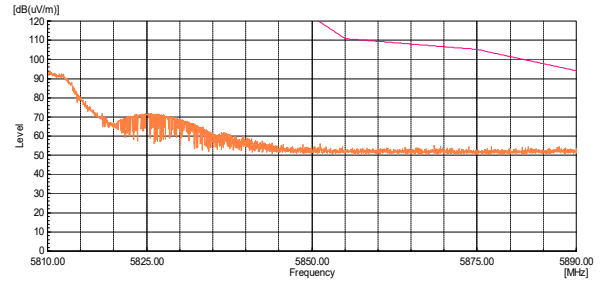
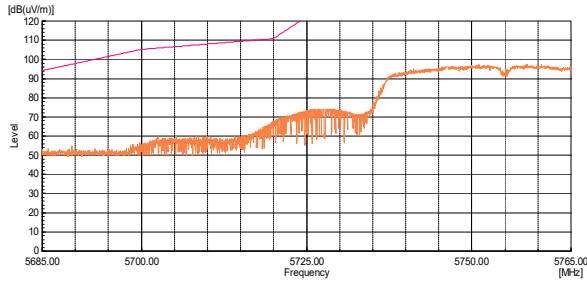
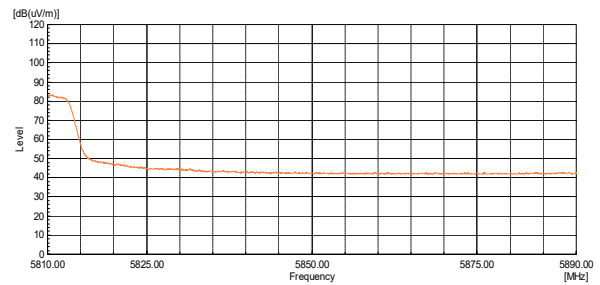
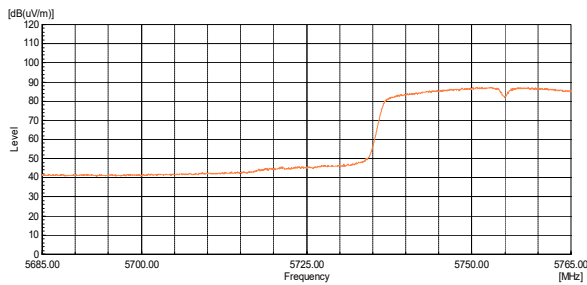


Figure 108: Radiated Emissions at Band Edge, Spectral Diagram, Average Data, 802.11n (40HT), 5755MHz and 5795MHz



5.4 AC Power Line Conducted Measurements

5.4.1 AC Power Line Conducted Emission of Transmitter

RESULT:

N/A

Requirements:

FCC 15.207

The AC power line conducted emission on any frequency within the band 150kHz to 30MHz shall not exceed the limits specified in FCC 15.207.

Test procedure:

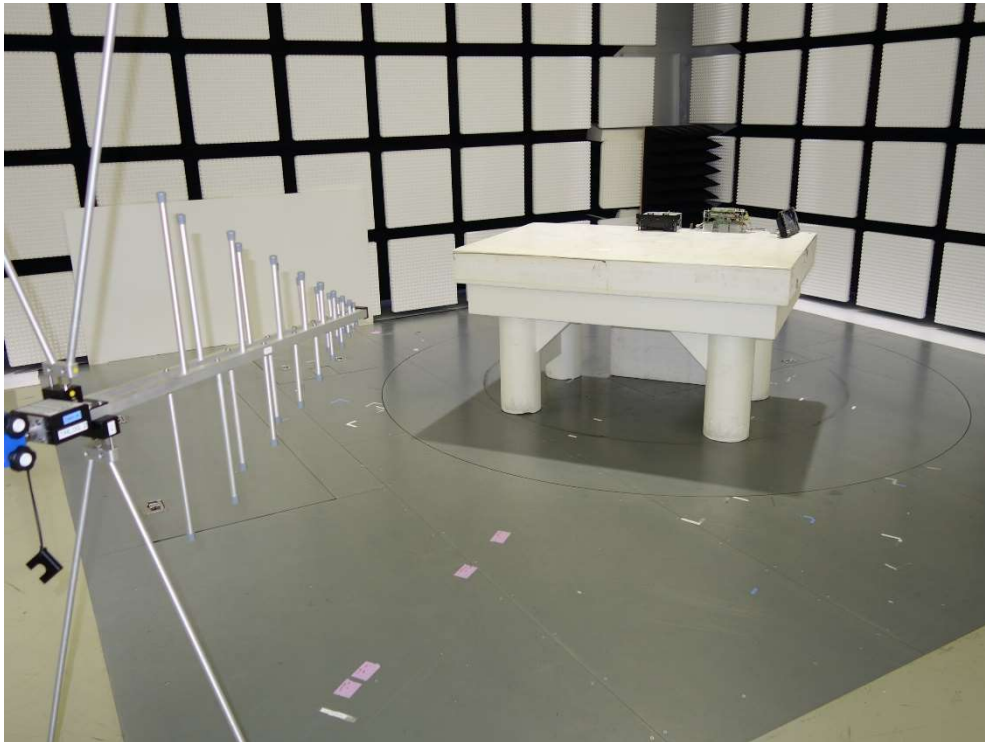
ANSI C63.10 §6.2

Note:

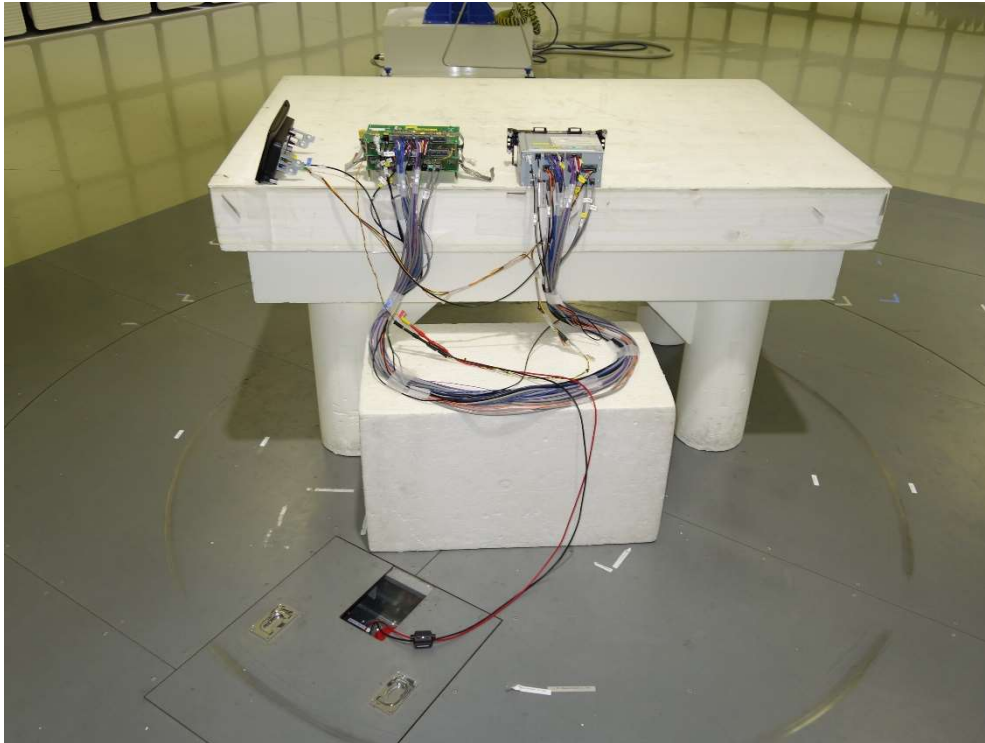
Not applicable since the EUT is not the device that is designed to be connected to the public utility (AC) power line.

7. Photographs of the Test Setup

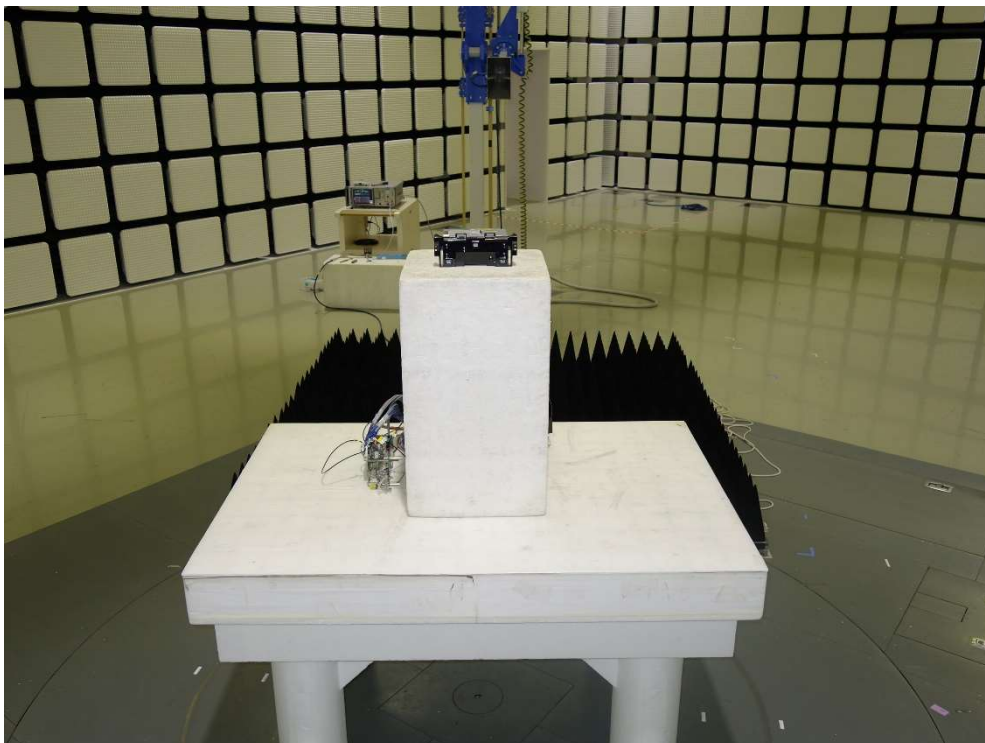
Photograph 1: Set-up for Radiated Emission of Transmitter at MHz Range, Front View



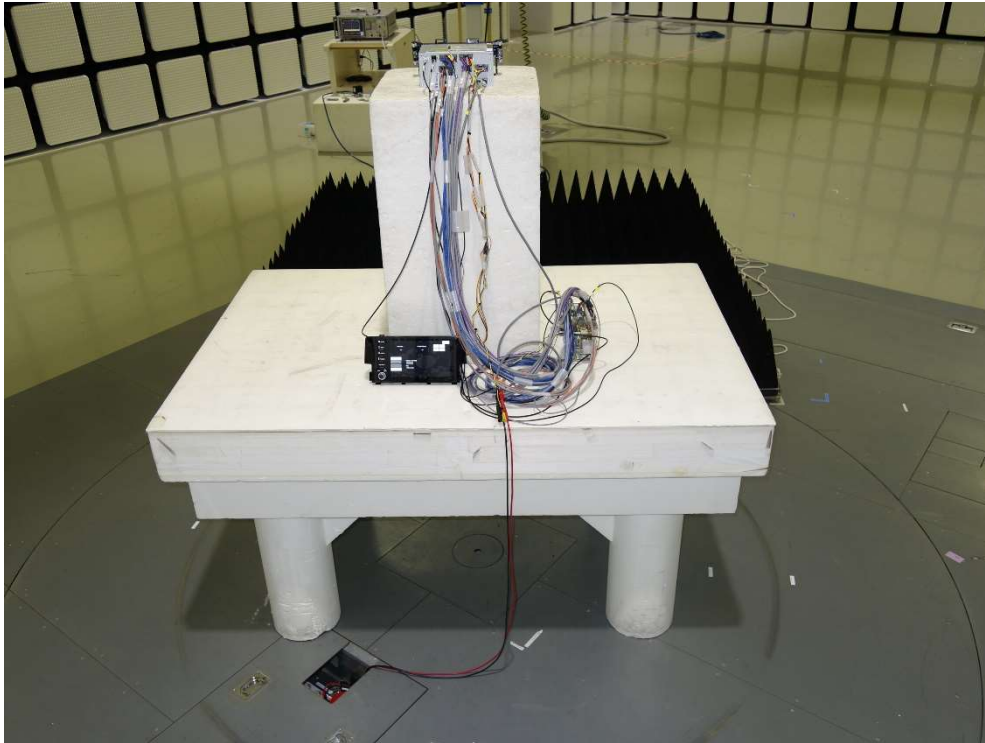
Photograph 2: Set-up for Radiated Emission of Transmitter at MHz Range, Rear View



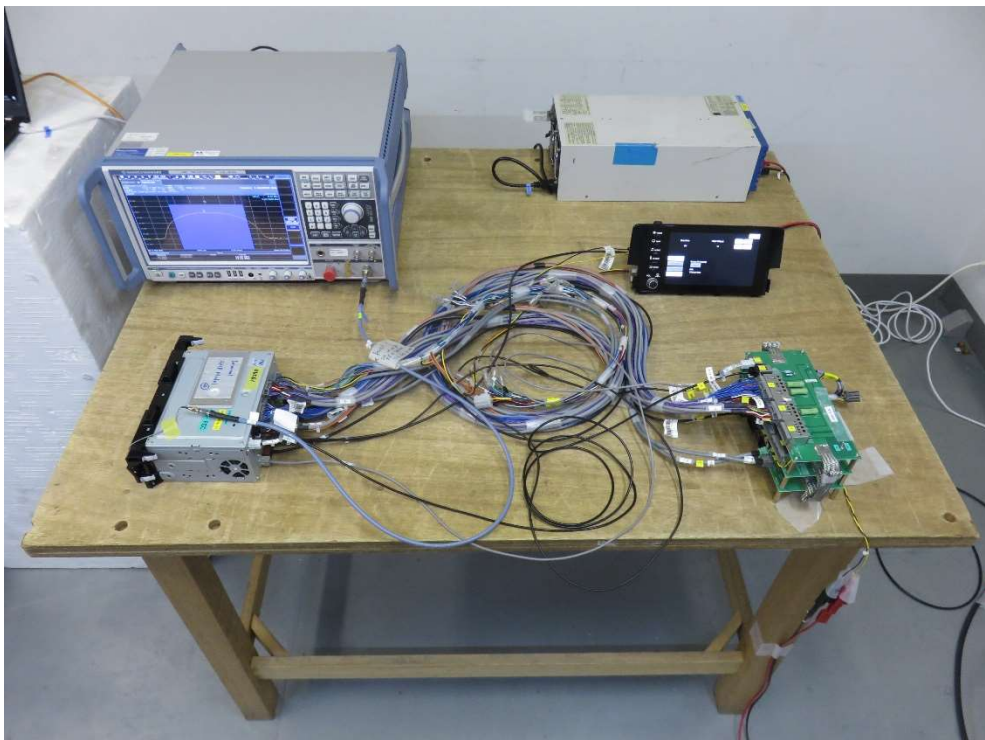
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