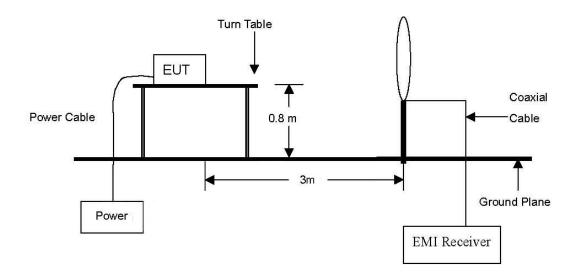


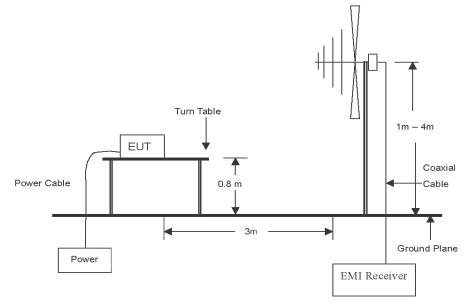
3.6. Radiated restricted band and emissions

Test setup

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz Emissions.

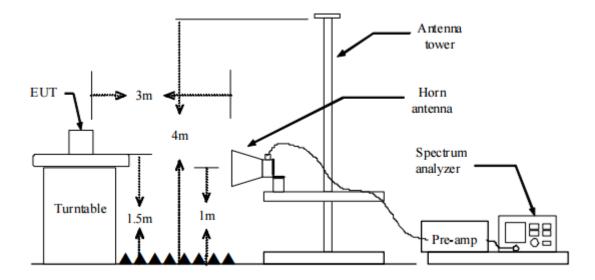


The diagram below shows the test setup that is utilized to make the measurements for emission from 30 Mz to 1 Gz emissions.





The diagram below shows the test setup that is utilized to make the measurements for emission from 1 \mathbb{G} to the tenth harmonic of the highest fundamental frequency or to 40 \mathbb{G} emissions, whichever is lower.



Test procedure below 30 Mz

- 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel and perpendicular of the antenna are set to make the measurement.
- 3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum hold mode.

Test procedure above 30 MHz

- 1. Spectrum analyzer settings for f < 1 GHz:
 - (1) Span = wide enough to fully capture the emission being measured
 - 2 RBW = 120 kHz
 - ③ VBW \ge RBW
 - ④ Detector = quasi peak
 - (5) Sweep time = auto
 - 6 Trace = max hold
- 2. Spectrum analyzer settings for $f \ge 1$ GHz: Peak
 - ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
 - 2 RBW = 1 Mz
 - ③ VBW = 3 M $(\geq 3 \times RBW)$
 - (4) Detector = peak
 - (5) Sweep time = auto
 - 6 Trace = max hold
 - \bigcirc Trace was allowed to stabilize



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- 3. Spectrum analyzer settings for $f \ge 1$ GHz: Average
 - ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
 - 2 RBW = 1 M/z

 - (4) Detector = RMS, if span/(# of points in sweep) \leq (RBW/2). Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
 - (5) Averaging type = power(i.e., RMS)
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
 - 6 Sweep = auto
 - \bigcirc Trace = max hold
 - 8 Perform a trace average of at least 100 traces.
 - (9) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
 - 1) If power averaging (RMS) mode was used in step (5), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.
 - 2) If linear voltage averaging mode was used in step (5), then the applicable correction factor is 20 log(1/x), where x is the duty cycle.
 - 3) If a specific emission is demonstrated to be continuous (\geq 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Note.

1. f < 30 MHz, extrapolation factor of 40 dB/decade of distance. $F_d = 40\log(D_m/Ds)$

 $f \ge 30$ Mz, extrapolation factor of 20 dB/decade of distance. $F_d = 20log(D_m/Ds)$ Where:

- F_d = Distance factor in dB
- D_m = Measurement distance in meters
- D_s = Specification distance in meters
- 2. $CF(Correction factors(dB)) = Antenna factor(dB/m) + Cable loss(dB) + or Amp. gain(dB) + or F_d(dB)$
- 4. Field strength($dB\mu N/m$) = Level($dB\mu N$) + CF (dB) + or DCF(dB)
- 5. Margin(dB) = Limit(dB μ /m) Field strength(dB μ /m)
- 6. Emissions below 18 GHz were measured at a 3 meter test distance while emissions above 18 GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 7. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, it was determined that <u>X orientation</u> was worst-case orientation; therefore, all final radiated testing was performed with the EUT in <u>X orientation</u>.
- 8. The worst-case emissions are reported however emissions whose levels were not within 20 dB of respective limits were not reported.
- 9. All channels, modes (e.g. 802.11a, 802.11n (20 Mz/40 Mz BW), 802.11ac (20 Mz/40 Mz /80 Mz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

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10. According to exploratory test no any obvious emission were detected from 9 kHz to 30 MHz. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Limit

According to 15.209(a), for an intentional radiator devices, the general required of field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values :

Frequency (Mz)	Distance (Meters)	Radiated (µN/m)
$0.009 \sim 0.490$	300	2400/F(kHz)
0.490 ~ 1.705	30	24000/F(kllz)
1.705 ~ 30.0	30	30
30~88	3	100**
88~216	3	150**
216 ~ 960	3	200**
Above 960	3	500

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands $54 \sim 72$ Mb, $76 \sim 88$ Mb, $174 \sim 216$ Mb or $470 \sim 806$ Mb. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.



According to 15.407(b), (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:

i) 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.

ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz.

A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 Mz.

(6) Unwanted emissions below 1 \mathbb{G} must comply with the general field strength limits set forth in §

15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.



Duty cycle

Regarding to KDB 789033 D02 v02r01, B)2)b), the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below.

Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100.

For the band 5.15-5.25 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11n_VHT20	0.206	0.299	0.689	68.90	1.62
802.11n_VHT40	0.120	0.248	0.484	48.39	3.15
802.11n_VHT80	0.078	0.172	0.453	45.35	3.43

For the band 5.250-5.350 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11n_VHT20	0.206	0.255	0.808	80.78	0.93
802.11n_VHT40	0.117	0.257	0.455	45.53	3.42
802.11n_VHT80	0.078	0.245	0.318	31.84	4.97

For the band 5.470-5.725 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11n_VHT20	0.206	0.345	0.597	59.71	2.24
802.11n_VHT40	0.117	0.258	0.453	45.35	3.43
802.11n_VHT80	0.078	0.183	0.426	42.62	3.70

For the band 5.725-5.85 GHz

Test mode	T _{on} time (MS)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11n_VHT20	0.207	0.351	0.590	58.97	2.29
802.11n_VHT40	0.125	0.236	0.530	52.97	2.76
802.11n_VHT80	0.078	0.178	0.438	43.82	3.58

Note:

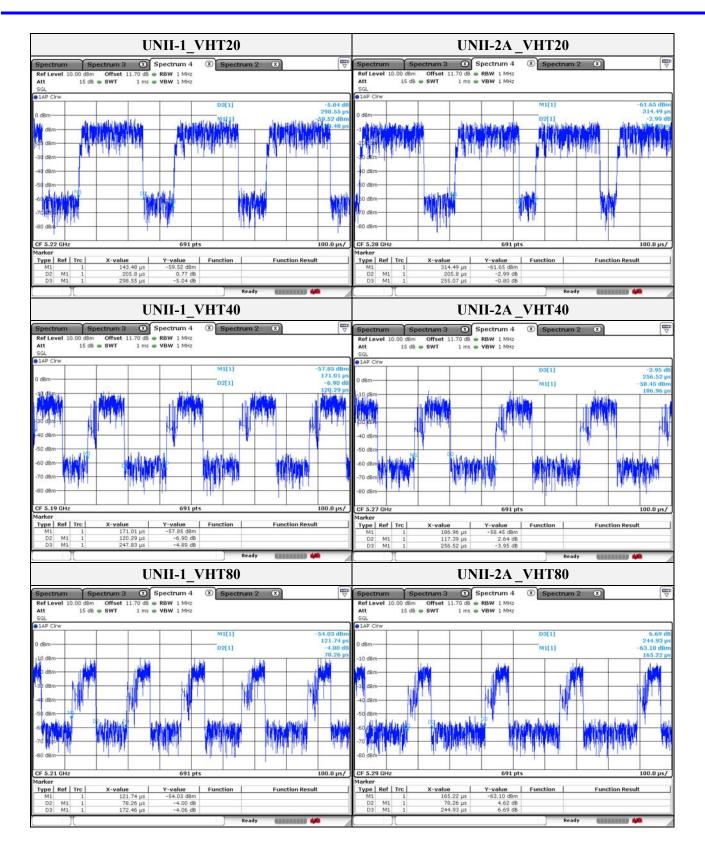
Duty cycle (Linear) = T_{on} time/Period DCF(Duty cycle correction factor (dB)) = 10log(1/duty cycle)

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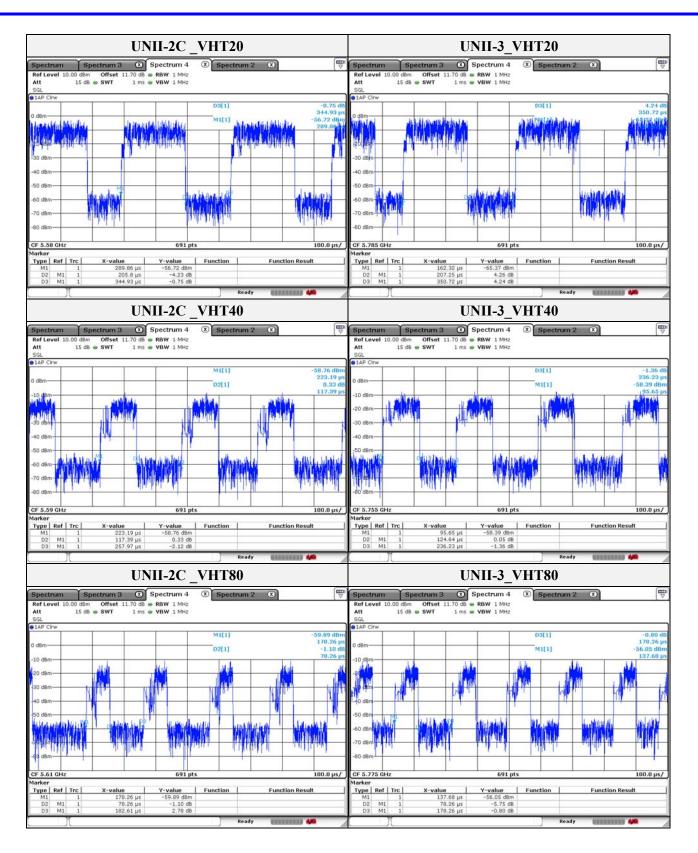


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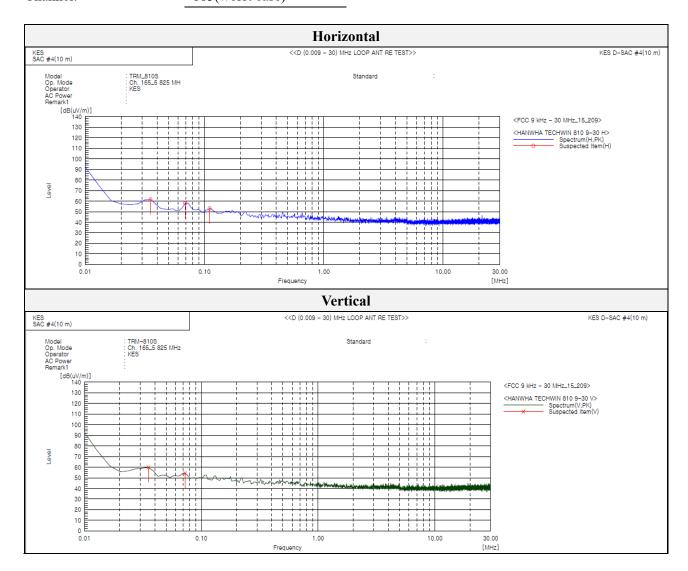




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Test results (Below 30 Mz)	– Worst case
Mode:	UNII-3
Distance of measurement:	3 meter
Channel:	165(worst case)



Frequency (Mz)	Level (dBµN)	Ant. Pol. (H/V)	CF (dB)	Distance factor (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
0.035	42.10	Н	19.50	-80	-18.40	36.70	55.10
0.069	38.40	Н	19.70	-80	-21.90	3080	52.70
0.110	33.40	Н	19.70	-80	-26.90	26.80	53.70
0.035	40.30	V	19.50	-80	-20.20	36.70	56.90
0.073	34.60	V	19.70	-80	-25.70	30.40	56.10



Mode	:		UNI	I-3						
Distan	ice of measu	uremer	nt: 3 me	eter						
Chann	el:		165(worst case)						
				F	Iorizontal //	Vertical				
KES SAC #4(1	10 m)				< <d (30="" -="" 1<="" th=""><th>000) MHz RE TEST>></th><th></th><th></th><th></th><th>KES D-</th></d>	000) MHz RE TEST>>				KES D-
Mode Op. I Oper AC P Rema	Mode rator Power ark1 [dB(uV/m)]	: TRM-810 : Ch. 165_6 : KES				Standard Ant.Factor	: FCC Part.1 : 715(+6 dB	5 Class B 3 m), KOLAS		
Level	110 100 90 80 70 60 50 40 20 20 0 10 0 30.00	50.00		100.00	Frequency	2 2 2 3	00.00		<hanwha techv<br="">S S S S S</hanwha>	imit(QP)
No. 1 2 3 4 5 6 7 8 9 10 11 12	Frequency [MHz] 111.844 164.588 215.998 240.005 264.013 399.691 42.368 50.976 101.053 111.116 165.921 398.358		Reading dB(uV)] 54.8 62.1 54.1 53.3 55.0 55.4 52.8 53.2 60.9 60.6 60.9 50.4	c.f [dB(1/m)] -23.7 -25.7 -21.9 -21.3 -21.0 -16.7 -22.9 -22.0 -23.3 -23.6 -25.6 -16.7	Result PK [dB(uV/m)] 31.1 36.4 32.2 32.0 34.0 38.7 29.9 31.2 37.6 37.0 35.3 33.7	Limit QP [dB(uV/m)] 43.5 43.5 43.5 43.5 46.0 46.0 46.0 40.0 40.0 43.5 43.5 43.5 43.5 43.5	Margin QP [dB] 12.4 7.1 11.3 14.0 12.0 7.3 10.1 8.8 5.9 6.5 8.2 12.3	Height [cm] 200.0 200.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	Angle [deg] 151.0 290.0 138.0 178.0 82.0 87.0 181.0 185.0 169.0 70.0 265.0 98.0	Remark



Test results (Above 1 000Mz)Mode:UNII-1(VHT20)Distance of measurement:3 meter

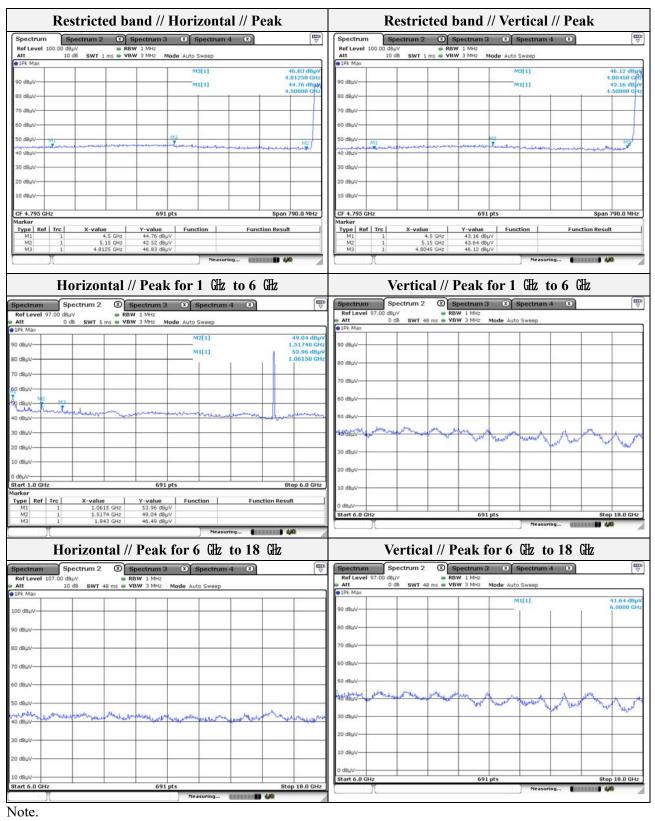
Channel: 36

- Spurio	us							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 061.50	53.96	Peak	Н	-8.29	-	45.67	74.00	28.33
1 517.40	49.04	Peak	Н	-5.51	-	43.53	74.00	30.47
1 843.00	46.49	Peak	Н	-2.42	-	44.07	68.20	24.13
1 061.50	56.22	Peak	V	-8.29	-	47.93	74.00	26.07
1 524.60	51.20	Peak	V	-5.45	-	45.75	74.00	28.25
2 125.20	47.12	Peak	V	-0.67	-	46.45	68.20	21.75

Band edge

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
4 812.50	46.83	Peak	Н	7.06	-	53.89	74.00	20.11
4 804.50	46.12	Peak	V	7.00	-	53.12	74.00	20.88





1. No spurious emission were detected above 6 GHz.



. . .

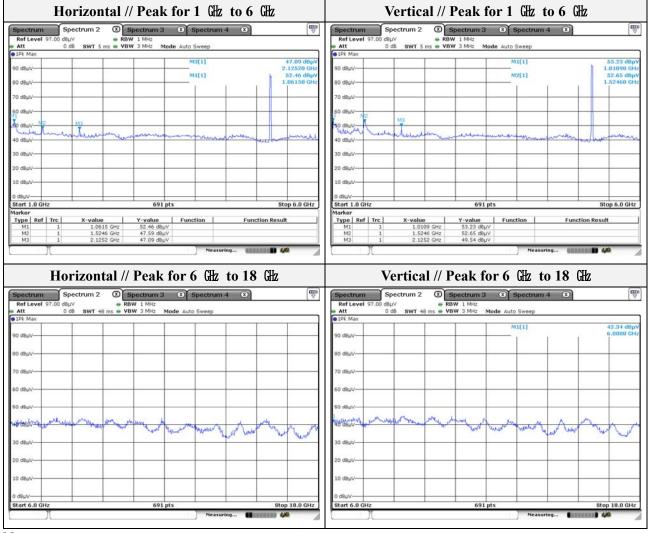
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Mode:			UNII-1	(VHT20)	_	
Distance o	f measurem	ent:	3 meter		-	
Channel:			44		-	
- Spurio	us				-	
Frequency	Level	Data		Ant. Pol.	CF	

Frequency (胜)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 061.50	52.46	Peak	Н	-8.29	-	44.17	74.00	29.83
1 524.60	47.59	Peak	Н	-5.45	-	42.14	74.00	31.86
2 125.20	47.09	Peak	Н	-0.67	-	46.42	68.20	21.78
1 010.90	53.23	Peak	V	-8.58	-	44.65	74.00	29.35
1 524.60	52.65	Peak	V	-5.45	-	47.20	74.00	26.80
2 125.20	49.54	Peak	V	-0.67	-	48.87	68.20	19.33



Note.

1. No spurious emission were detected above 6 GHz.



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UNII-1(VHT20)

Distance of measurement: 3 meter

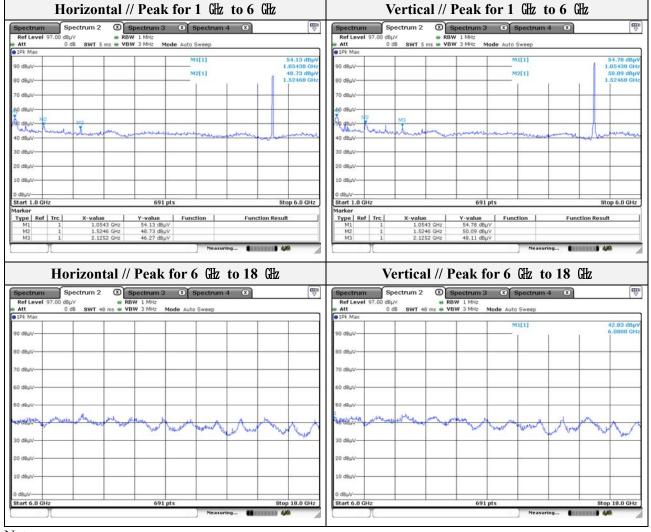
Channel:

Mode:

48		

- Spurious

Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 054.30	54.13	Peak	Н	-8.33	-	45.80	74.00	28.20
1 524.60	48.73	Peak	Н	-5.45	-	43.28	74.00	30.72
2 125.20	46.27	Peak	Н	-0.67	-	45.60	68.20	22.60
1 054.30	54.78	Peak	V	-8.33	-	46.45	74.00	27.55
1 524.60	50.09	Peak	V	-5.45	-	44.64	74.00	29.36
2 125.20	48.11	Peak	V	-0.67	-	47.44	68.20	20.76



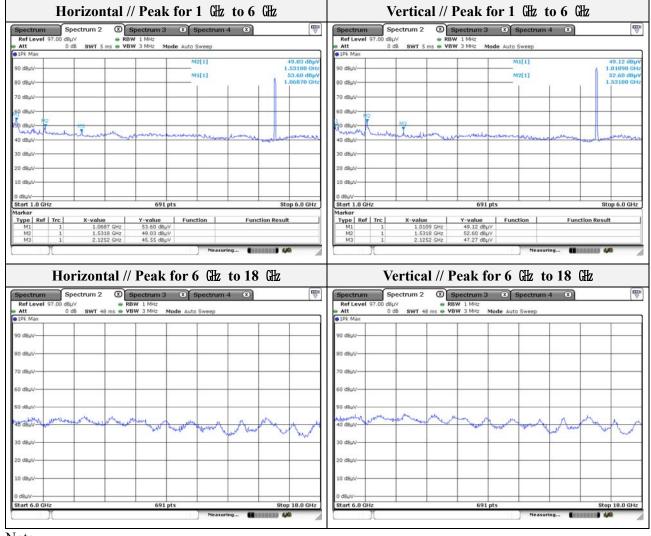
Note.

1. No spurious emission were detected above 6 GHz.



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Mode:		UNII-2	A(VHT20)					
Distance o	f measurem	ent: <u>3 meter</u>						
Channel:		52						
- Spurio	us							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1 068.70	53.60	Peak	Н	-8.25	-	45.35	74.00	28.65
1 531.80	49.03	Peak	Н	-5.38	-	43.65	74.00	30.35
2 125.20	45.55	Peak	Н	-0.67	-	44.88	68.20	22.65
1 010.90	49.12	Peak	V	-8.58	-	40.54	74.00	33.46
1 531.80	52.60	Peak	V	-5.38	-	47.22	74.00	26.78
2 125.20	47.27	Peak	V	-0.67	-	46.60	68.20	20.93



Note.

1. No spurious emission were detected above 6 GHz.



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Mode:		_	UN	NII-2A(VHT20)	
D ' /	c		2		

Distance of measurement: 3 meter

Channel:

F

56		

- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 076.00	51.13	Peak	Н	-8.21	-	42.92	74.00	31.08
1 510.10	46.73	Peak	Н	-5.58	-	41.15	74.00	32.85
1 083.20	50.62	Peak	V	-8.17	-	42.45	74.00	31.55
1 517.40	51.82	Peak	V	-5.51	-	46.31	74.00	27.69
1 850.20	50.22	Peak	V	-2.35	-	47.87	68.20	20.33

Horizontal // Peak for 1	Vertical // Peak for 1 GHz to 6 GHz
Spectrum Spectrum 2 3 Spectrum 3 8 Spectrum 4 8	Spectrum Spectrum 2 (3) Spectrum 3 (8) Spectrum 4 (8)
Ref Level 97.00 d8µV ■ RBW 1 MHz ■ Att 0 d8 SWT 5 ms ■ VBW 3 MHz Mode Auto Sweep	Ref Level 97.00 d8µV ● RBW 1 1 MHz ● Att 0 dB SWT 5 ms ● VBW 3 Mode Auto Sweep
●1Pk Max	IPk Max
90 dBuV	90 dBµV 1.00320 GHz
M1[1] 51.13 dBµV	80 dBuV M2[1] 51.82 dBpV 1.51740 GHz
80 dBuV	
Spectrum Spectrum <th< th=""></th<>	
70 dBµV-	
60 dBµV	st dayv
19 Contraction of the second s	my wind remarked a store and and a store and a store
po dauv-No	
40 deur	30 dBµV
	20 dBµV
30 dBµV-	10 d8µV
20 dBuV-	
20.000	
10 dBµV	Marker
	M1 1 1.0832 GHz 50.62 dBµV
0 dBuV	
Spectrum 2 (3) Spectrum 3 (3) Spectrum 4 (3)	Spectrum 2 (3) Spectrum 3 (3) Spectrum 4 (8)
e 1Pi: Max	e 1Pk Max
100 dBµV	100 dBuV
90 d8µV	90 d8µV
80 dBµV	80 geho-
70 dBµV	70 dBµV
60 dBµV	60 d8µv
50 deµv-	50 d8µV
50 deµv	
50 BEV- S0 BEV- 40 BEV- S0	50 deur man han an a
50 deux	50 deur martin albert werden er en er menster mit an er transter finster bei gen Arende mit der son er verber und mit
50 dBuV	50 dBuv- 40 dBuv- 30 dBuv- 30 dBuv-
50 BEV- S0 BEV- 40 BEV- S0	50 dBuv- 40 dBuv- 30 dBuv- 30 dBuv-
50 dBuV 40 dBuV 30 dBuV 20 dBuV 10 dBuV	50 dBuV- 20 dBuV- 20 dBuV- 10 dBuV- 10 dBuV- 10 dBuV-
50 GBUV	50 dBuV 30 dBuV 40 dBuV 20 dBuV 20 dBuV

Note.

1. No spurious emission were detected above 6 GHz.

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Mode:	UNII-2A(VHT20)
Distance of measurement:	3 meter
Channel:	64

- Spuriou	18							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1 039.80	54.64	Peak	Н	-8.42	-	46.22	74.00	27.78
1 531.80	48.88	Peak	Н	-5.38	-	43.50	74.00	30.50
2 125.20	45.86	Peak	Н	-0.67	-	45.19	68.20	23.01
1 068.70	55.06	Peak	V	-8.25	-	46.81	74.00	27.19
1 524.60	50.23	Peak	V	-5.45	-	44.78	74.00	29.22
2 125.20	47.19	Peak	V	-0.67	-	46.52	68.20	21.68

Band edge

_

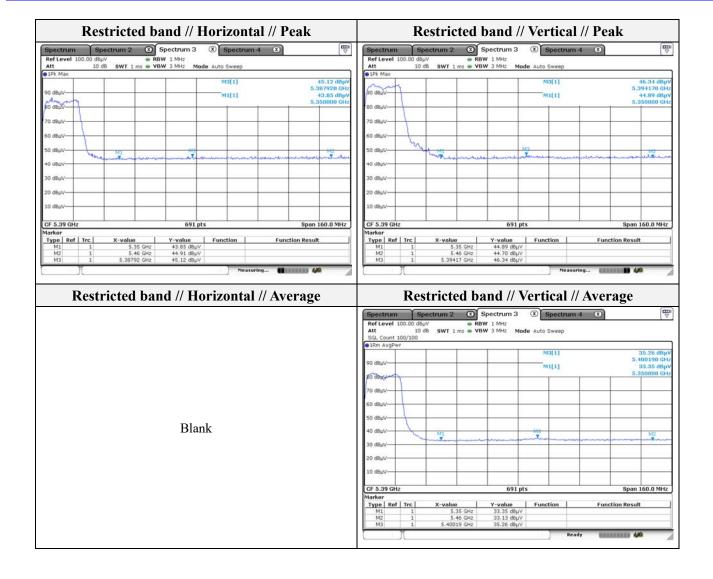
Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 387.92	45.12	Peak	Н	7.90	-	50.70	74.00	23.30
5 394.17	46.34	Peak	V	7.89	-	55.30	74.00	18.70
5 400.19	35.26	Average	V	7.88	0.93	46.61	54.00	7.39



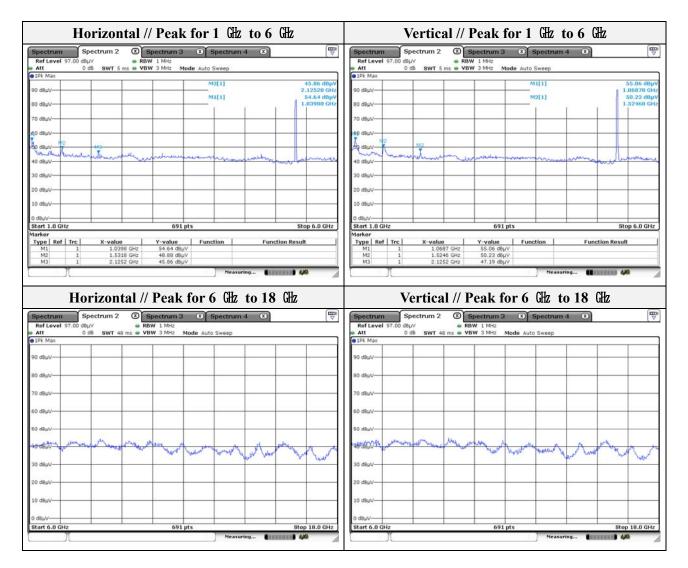
KES Co., Ltd. 3701, 40, Simin-daero 365beon-gil,

Test report No .: KES-RF-19T0015 Page (64) of (110)

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Note.

1. No spurious emission were detected above 6 GHz.

2. Average test would be performed if the peak result were greater than the average limit.



Mode:	UNII-2C(VHT20)
Distance of measurement:	3 meter
Channel:	100

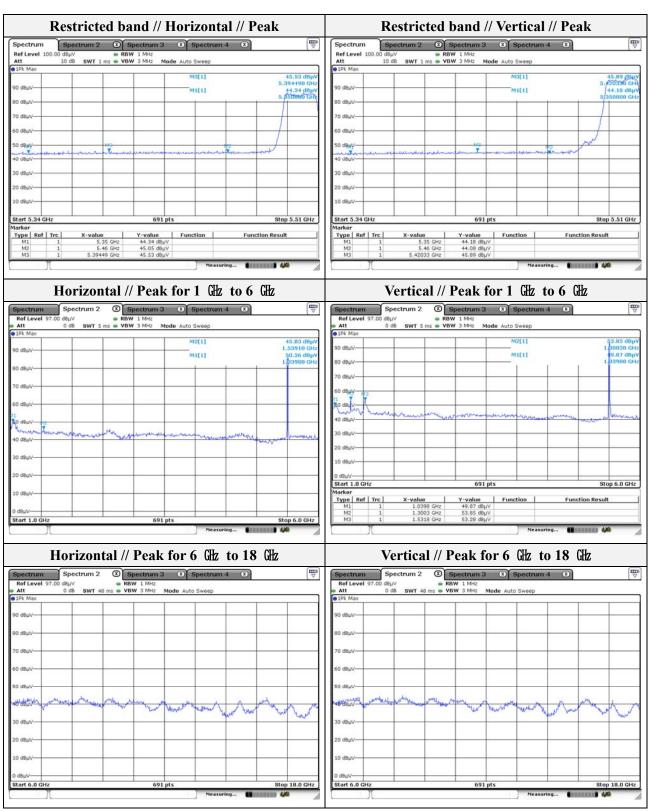
- Spurio	us							
Frequency (畑)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 039.80	50.36	Peak	Н	-8.42	-	41.94	74.00	32.06
1 539.10	45.83	Peak	Н	-5.31	-	40.52	74.00	33.48
1 039.80	49.87	Peak	V	-8.42	-	41.45	74.00	32.55
1 300.30	53.85	Peak	V	-6.87	-	46.98	74.00	27.02
1 531.80	53.28	Peak	V	-5.38	-	47.90	74.00	26.10

- Band edge

Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 394.49	45.53	Peak	Н	7.89	-	53.42	74.00	20.58
5 420.33	45.89	Peak	V	7.86	-	53.75	74.00	20.25



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Note.

1. No spurious emission were detected above 6 GHz.

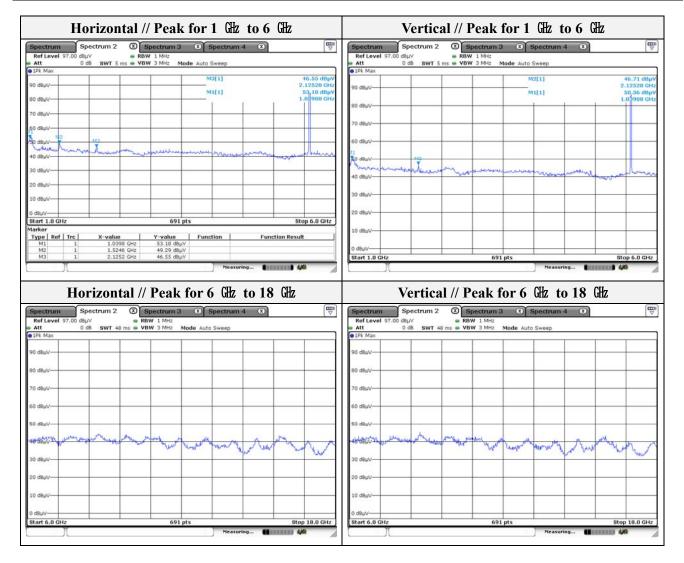
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Mode:	UNII-2	C(VHT20)		
Distance of measurement:	3 meter			
Channel:	120			
- Spurious				
E I.			CE	DOE

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 039.80	53.18	Peak	Н	-8.42	-	44.76	74.00	29.24
1 524.60	49.29	Peak	Н	-5.45	-	43.84	74.00	30.16
2 125.20	46.55	Peak	Н	-0.67	-	45.88	68.20	22.32
1 039.80	50.36	Peak	V	-8.42	-	41.94	74.00	32.06
2 125.20	46.71	Peak	V	-0.67	-	46.04	68.20	22.16



Note.

1. No spurious emission were detected above 6 GHz.

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Mode:	UNII-2C(VHT20)
Distance of measurement:	3 meter
Channel:	140

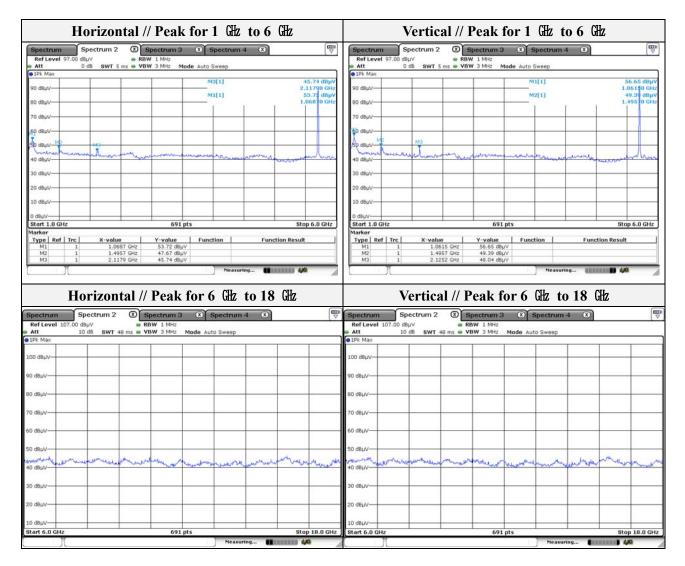
- Spurio	us							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 068.70	53.72	Peak	Н	-8.25	-	45.47	74.00	28.53
1 495.70	47.67	Peak	Н	-5.69	-	41.98	74.00	32.02
2 117.90	45.74	Peak	Н	-0.69	-	45.05	68.20	23.15
1 061.50	56.65	Peak	V	-8.29	-	48.36	74.00	25.64
1 495.70	49.39	Peak	V	-5.69	-	43.70	74.00	30.30
2 125.20	48.04	Peak	V	-0.67	-	47.37	68.20	20.83

Band edge

Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 725.00	46.19	Peak	Н	8.77	-	54.96	68.20	13.24
5 756.92	45.41	Peak	Н	8.93	-	54.34	68.20	13.86
5 725.00	50.50	Peak	V	8.77	-	59.27	68.20	8.93
5 805.82	47.39	Peak	V	9.15	-	56.54	68.20	11.66

Restricted band // Horizontal // Peak	Restricted band // Vertical // Peak
Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Tmm Ref Level 100.00 dByV • RBW 1 MHz • RBW 1 MHz • Tmm Att 10 dB SWT 1 ms • VBW 3 MHz Mode Auto Sweep • M2[1] 45.41 dByV	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Spectrum 4 Ref Level 100 dbµV ● RBW 1 MHz Att 10 db SWT 1 ms VBW 3 MHz Mode Auto Sweep ●IPk Max M2[1] 42.39 d
90 d8µVM1[1] 5.756920 GHz 80 d8µVM1[1] 5.725000 GHz 80 d8µV	90 d8µV
50 deur	70 dBuv
40 dBµV	40 dBµV
10 dBµV	10 dBµV





Note.

.

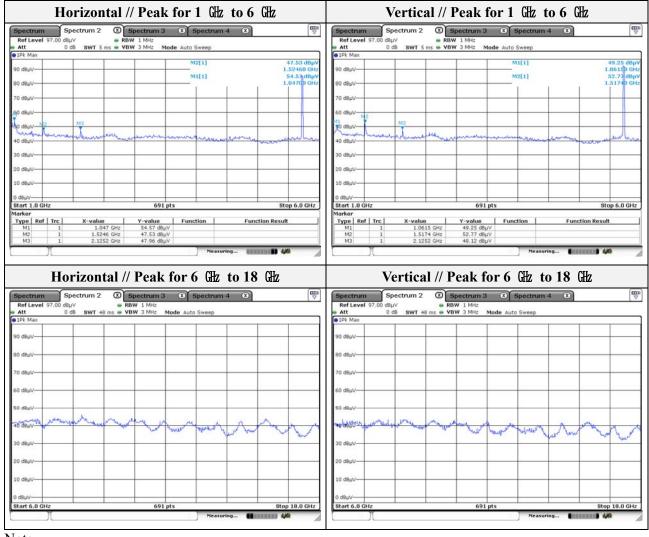
1. No spurious emission were detected above 6 GHz.



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Test report No .: KES-RF-19T0015 Page (71) of (110)

Mode:		UNII-2	C(VHT20)					
Distance o	f measurem	ent: 3 meter						
Channel:		144						
- Spurio	us							
Frequency (MLz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1047.00	54.57	Peak	Н	-8.37	-	46.20	74.00	27.80
1524.60	47.53	Peak	Н	-5.45	-	42.08	74.00	31.92
2125.20	47.96	Peak	Н	-0.67	-	47.29	68.20	20.91
1061.50	49.25	Peak	V	-8.29	-	40.96	74.00	33.04
1517.40	52.77	Peak	V	-5.51	-	47.26	74.00	26.74
2125.20	48.12	Peak	V	-0.67	-	47.45	68.20	20.75



Note.

1. No spurious emission were detected above 6 GHz.



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Mode:	UNII-3(VHT20)
Distance of measurement:	3 meter
Channel:	149

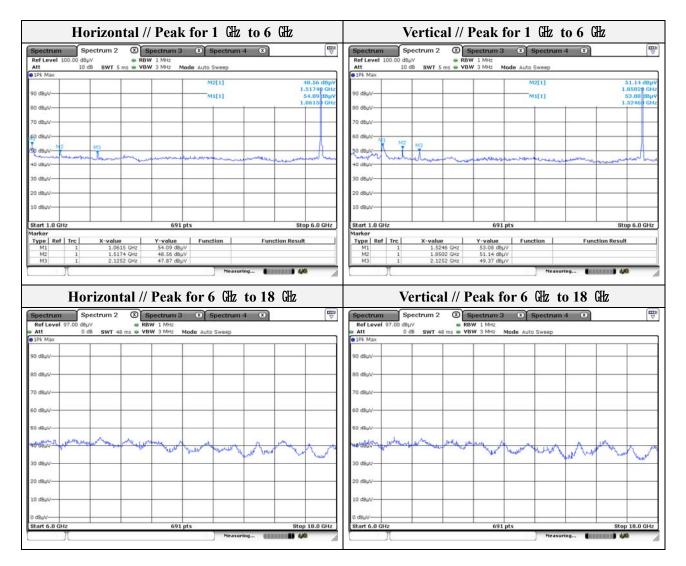
- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1 061.50	54.09	Peak	Н	-8.29	-	45.80	74.00	28.20
1 517.40	48.56	Peak	Н	-5.51	-	43.05	74.00	30.95
2 125.20	47.87	Peak	Н	-0.67	-	47.20	68.20	21.00
1 524.60	53.08	Peak	V	-5.45	-	47.63	74.00	26.37
1 850.20	51.14	Peak	V	-2.35	-	48.79	68.20	19.41
2 125.20	49.37	Peak	V	-0.67	-	48.70	68.20	19.50

Band edge

- Dallu C	uge							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5 706.54	45.05	Peak	Н	8.69	-	53.74	107.03	53.29
5 725.00	45.12	Peak	Н	8.77	-	53.89	122.20	68.31
5 709.53	47.40	Peak	V	8.70	-	56.10	107.87	51.77
5 725.00	50.60	Peak	V	8.77	-	59.37	122.20	62.83

Spectrum	Spectrum 2	2 🗷 Spectru	m 3 🛛 🕷	Spectrum 4	×		Spectrum	Sp	ectrum 2 🛞	Spectrum 3	Spectrum -	4 🛞	
Ref Level 100		RBW 1 MH;					Ref Level			W 1 MHz			
Att 1Pk Max	10 dB SWT	1 ms 👄 VBW 3 MH;	Mode Aut	o Sweep			Att Pk Max	10 c	18 SWT 1 ms 👄 VB	W 3 MHz Mod	e Auto Sweep		
лек мах			_	110(11		IT OF JOULT	• IPK Max				10001		47.40 dBu
				M3[1]		45.05 dBpV /06540 GHz					M3[1]		5.709520-0
O dBµV			-	M1[1]		43.24 dBuy	90 dBµV-				M1[1]		44.14 dB
					5.6	50000 CH2							5.650000 GF
Vµ8b 0							80 dBµV						
70 dBuV							70 dBuV						
o oopr							10 oupr			1	-		
0 dBuV							60 dBuV					i	
												Ma	MR,
0 dBuV		-		M1	M3 h	21	50 dBµV-			+ +	MI	Y	1
	manutan	and all menore	manue		mannen	-/1		مهمطللهما	emendenter	mounder	approximation and the	kommennish	at the second se
10 UBUV		-					40 dBµV						
30 dBuV							30 dBuV-						
							or other						
20 dBµV							20 dBµV-			-			
100000000							0.0000000						
10 dBµV							10 dBµV						_
itart 5.46 GH	2	-85 - 80	691 pts	- A1	Stop	5.755 GHz	Start 5.46	GHz	S. 35	691 pts		5	Stop 5.755 GH:
larker							Marker						
Type Ref				nction	Function Result	:	Type Ref		X-value	Y-value	Function	Function R	esult
M1 M2			4 dBµV 2 dBµV				M1 M2	1	5.65 GHz 5.725 GHz	44.14 dBµV 50.60 dBµV			





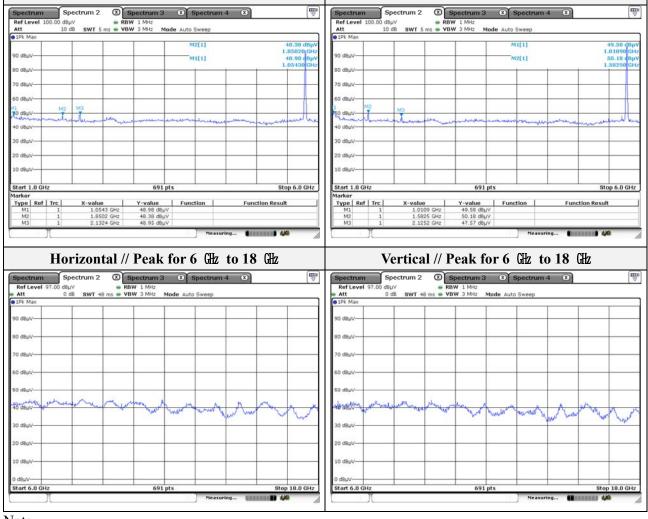
Note.

1. No spurious emission were detected above 6 GHz.



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Mode:		UNII-3((VHT20)					
Distance o	f measurem	ent: 3 meter						
Channel:		157						
- Spurio	us							
Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 054.30	48.98	Peak	Н	-8.33	-	40.65	74.00	33.35
1 850.20	48.38	Peak	Н	-2.35	-	46.03	68.20	22.17
2 132.40	48.95	Peak	Н	-0.66	-	48.29	68.20	19.91
1 010.90	49.58	Peak	V	-8.58	-	41.00	74.00	33.00
1 582.50	50.18	Peak	V	-4.92	-	45.26	74.00	28.74
2 125.20	47.57	Peak	V	-0.67	-	46.90	68.20	21.30
				•	•			
H	orizontal //	Peak for 1 G	z to 6 GHz		Vertical	// Peak for 1 GH	to 6 GHz	
Spectrum S Ref Level 100.00 d		1 MHz Spectrum	n 4 🛞	Spectrum Ref Level	and the second sec	B Spectrum 3 Spect	rum 4 🛞	



Note.

1. No spurious emission were detected above 6 GHz.



Mode:	UNII-3(VHT20)
Distance of measurement:	3 meter
Channel:	165

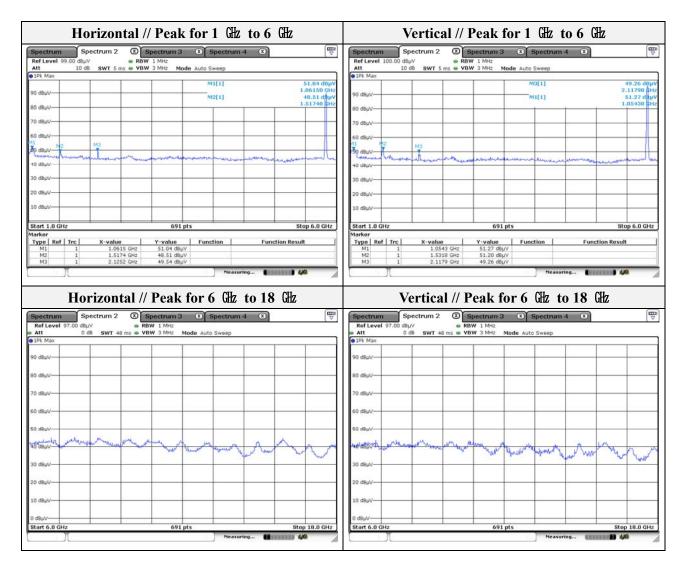
- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1 061.50	51.04	Peak	Н	-8.29	-	42.75	74.00	31.25
1 517.40	48.51	Peak	Н	-5.51	-	43.00	74.00	31.00
2 125.20	49.54	Peak	Н	-0.67		48.87	68.20	19.33
1 054.30	51.27	Peak	V	-8.33		42.94	74.00	31.06
1 531.80	51.20	Peak	V	-5.38		45.82	74.00	28.18
2 117.90	49.26	Peak	V	-0.69		48.57	68.20	19.63

- Band edge

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 850.00	57.43	Peak	Н	9.32	-	66.75	122.20	55.45
5 861.15	53.91	Peak	Н	9.36	-	63.27	109.08	45.81
5 850.00	66.23	Peak	V	9.32	-	75.55	122.20	46.65
5 856.20	60.91	Peak	V	9.34	-	70.25	110.46	40.21

Re	stricted b	and // H	lorizonta	ul // Peak		R	estricted	band //	Vertica	l // Pea	k
Spectrum S	pectrum 2 🛛	Spectrum 3	Spectrum	4 🛪	Spectrum	Sp	ectrum 2 🛞	Spectrum 3	(X) Spectrum	n4 🛛	E
Ref Level 100.00 de	UV . RB	W 1 MHz			Ref Level	100.00 dB	V RB	W 1 MHz			1.
Att 10	dB SWT 1 ms . VB	W 3 MHz Mod	e Auto Sweep		Att	10 0	B SWT 1 ms . VB	W 3 MHz Mod	e Auto Sweep		
1Pk Max					1Pk Max						
			M3[1]	53.91 dBpV				1	M3[1]		60.91 dBp/
				5.861150 GHz	90 deuty						5.856200 GH
90 dBuV			M1[1]	57.43 dBpV	An geho				M1[1]		66.23 dBp
				5.850000 GHz							5.850000 GH
80 dBµV					80 d8µV-1	A					
1						1					
10 dBuV		-	-		70 dBµV-	1			-	2 2	
The second se		1 1			4212422578	1	13	1 1			
50 dBµV	M3	+ +			60 dBµV		nu	+ +			
	The second						met way				
50 dBuV	- CA		142		50 dBµV-		The state of the s		M2		
1011-0220	needeline	sunderune	M2 wenner	manappenerse	- 17 5 Fb # 52 5 A		The state way	mundering	rebuilding	monner	mennorson
40 dBuV					40 dBµV						
30 dBuV		-			30 dBuV-			-	-		
0.00000					10.000 A						
20 dBuV				· · · · · · · · · · · · · · · · · · ·	20 dBuV-						
LO ODDY					10 0001						
10 dBuV					10 dBuV-						
to oppy					10 OBhA-						
	1 1							1 1			
Start 5.82 GHz		691 pts	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Stop 6.0 GHz	Start 5.82	GHz		691 pt:			Stop 6.0 GHz
larker					Marker	and the second se					
Type Ref Trc	X-value	Y-value	Function	Function Result	Type Re	ITecl	X-value	Y-value	Function	Eunctic	on Result
M1 1	S.85 GHz	57.43 dBuV	runcadii	r unceron sersuit	M1	1	5.85 GHz	66.23 dBµV	(uncelon	Functio	
M2 1	5.925 GHz	44.12 dBµV			M2	1	5.925 GHz	45.32 dBµV			
M3 1	5.86115 GHz	53.91 dBµV			M3	1	5.8562 GHz	60.91 dBµV			
	0.00110 GHz	asist uppy		<u>j</u>	1413	-	5.0302 GHz	00.91 ubh4			
			Measur	ing 🚺 👬 👬 🍂	8	1			Meas	uring	A40
				In	-						





Note.

1. No spurious emission were detected above 6 GHz.



Mode:	UNII-1(VHT40)
Distance of measurement:	3 meter
Channel:	38

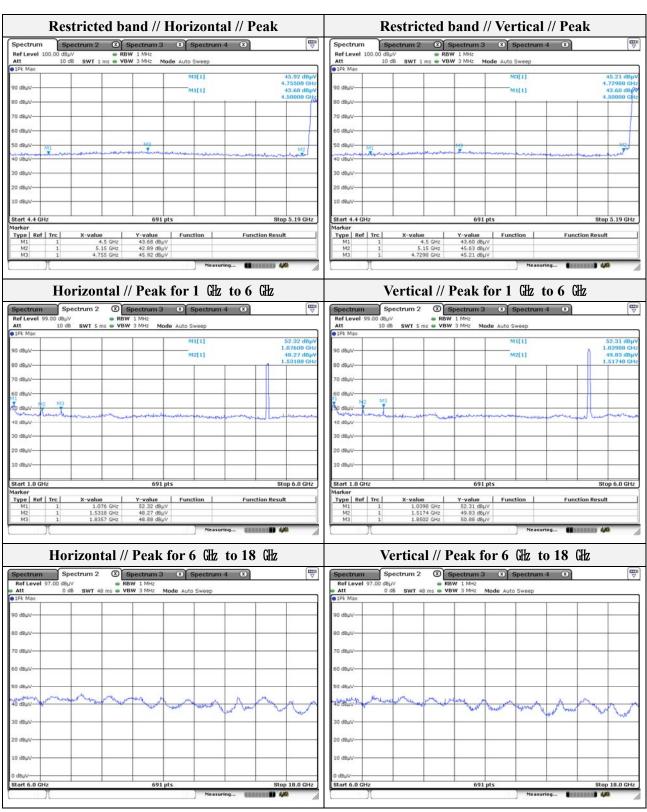
- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 076.00	52.32	Peak	Н	-8.21	-	44.11	74.00	29.89
1 531.80	48.27	Peak	Н	-5.38	-	42.89	74.00	31.11
1 835.70	48.88	Peak	Н	-2.48	-	46.40	68.20	21.80
1 039.80	52.31	Peak	V	-8.42	-	43.89	74.00	30.11
1 517.40	49.83	Peak	V	-5.51	-	44.32	74.00	29.68
1 850.20	50.88	Peak	V	-2.35	-	48.53	68.20	19.67

Band edge

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
4 755.00	45.92	Peak	Н	6.62	-	52.54	74.00	21.46
4 729.80	45.21	Peak	V	6.43	-	51.64	74.00	22.36



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Note.

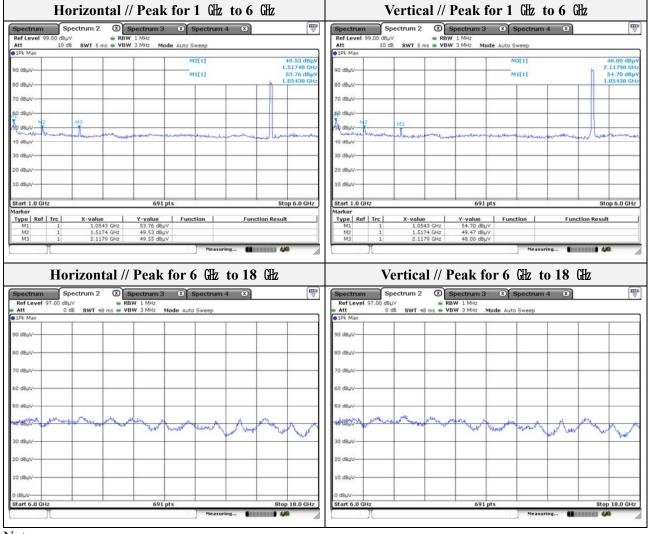
1. No spurious emission were detected above 6 GHz.



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Mode:	UNII-1(VHT40)
Distance of measurement:	3 meter
Channel:	46
- Spurious	

Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 054.30	53.76	Peak	Н	-8.33	-	45.43	74.00	28.57
1 517.40	49.53	Peak	Н	-5.51	-	44.02	74.00	29.98
2 117.90	49.55	Peak	Н	-0.69	-	48.86	68.20	19.34
1 054.30	54.70	Peak	V	-8.33	-	46.37	74.00	27.63
1 517.40	49.47	Peak	V	-5.51	-	43.96	74.00	30.04
2 117.90	48.00	Peak	V	-0.69	-	47.31	68.20	20.89



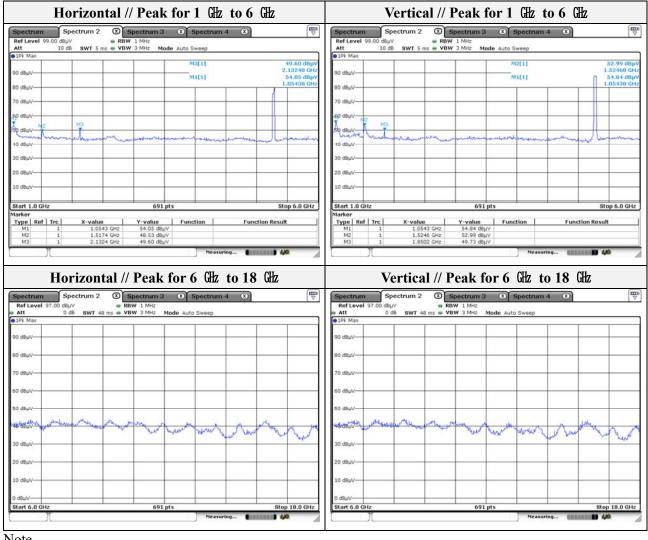
Note.

1. No spurious emission were detected above 6 GHz.



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Mode:		UNII-2	A(VHT40)					
Distance o	f measurem	ent: 3 meter						
Channel:		54						
- Spurio	us							
Frequency (MHz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 054.30	54.05	Peak	Н	-8.33	-	45.72	74.00	28.28
1 517.40	48.53	Peak	Н	-5.51	-	43.02	74.00	30.98
2 132.40	49.60	Peak	Н	-0.66	-	48.94	68.20	19.26
1 054.30	54.84	Peak	V	-8.33	-	46.51	74.00	27.49
1 524.60	52.99	Peak	V	-5.45	-	47.54	74.00	26.46
1 850.20	49.73	Peak	V	-2.35	-	47.38	68.20	20.82



Note.

1. No spurious emission were detected above 6 GHz.



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Test report No .: KES-RF-19T0015 Page (81) of (110)

Mode:	UNII-2A(VHT40)
Distance of measurement:	3 meter

Channel:	62	

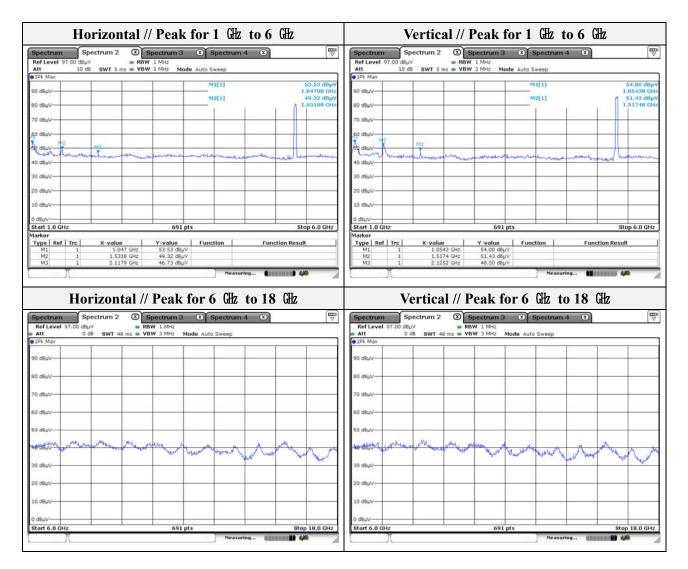
- Spurio	us							
Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 047.00	53.53	Peak	Н	-8.37	-	45.16	74.00	28.84
1 531.80	49.32	Peak	Н	-5.38	-	43.94	74.00	30.06
2 117.90	46.73	Peak	Н	-0.69	-	46.04	68.20	22.16
1 054.30	54.00	Peak	V	-8.33	-	45.67	74.00	28.33
1 517.40	51.43	Peak	V	-5.51	-	45.92	74.00	28.08
2 125.20	48.50	Peak	V	-0.67	-	47.83	68.20	20.37

- Band e	dge							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5 377.03	46.00	Peak	Н	7.91	-	53.91	74.00	20.09
5 350.00	46.31	Peak	V	7.95	-	54.26	74.00	19.74
5 352.49	48.51	Peak	V	7.94		56.45	74.00	17.55
5 350.00	33.64	Average	V	7.95	3.42	45.01	54.00	8.99
5 387.22	33.88	Average	V	7.90	3.42	45.20	54.00	8.80



	Peak	Restr	icted band // Vertic	al // Peak
Spectrum Spectrum 2 Spectrum 3 Spectrum 4 X Ref Level 100.00 dbµV 		Spectrum Spectrum Ref Level 100.00 dBµV	RBW 1 MHz	rum 4 🛞 🕎
Att 10 dB SWT 1 ms . VBW 3 MHz Mode Auto Sweep		Att 10 dB SW	T 1 ms • VBW 3 MHz Mode Auto Sweep	
91Pk Max M3[1]	46.00 dBµV	• 1Pk Max	M3[1]	48.51 dBµV
90 d8µV	5.377838 GHz 42.91 d8µV	RO. dBall		5.352490 GHz 46.31 dBpV
80, 484 Y	5.350000 GHz	B0 dBuV		5.350000 GHz
70 d8µV		70 d8µV		
60 dBµV		60 dBµV	12	
S0 dBµV	M2	50 dBuy hunne	True was a second and a second a	an marine and marine
40 UBµV		40 dBµV		
30 d8µV	-	30 dBµV		
20 dBµV		20 dBµV		
10 dBµV-		10 dBµV		
CF 5.39 GHz 691 pts Marker	Span 160.0 MHz	CF 5.39 GHz Marker	691 pts	Span 160.0 MHz
	4/2	M2 1 M3 1 5.	5.35 GHz 46.31 dBµV 5.46 GHz 44.47 dBµV 35249 GHz 48.51 dBµV	easuring
Restricted band // Horizontal //	Peak	Restr	ricted band // Vertic	al // Peak
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 dBµV	■ RBW 1 MHz ■ RBW 1 MHz T 1 ms ■ VBW 3 MHz Mode Auto Sweep	rum 4 🕱 🕅 🖓
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 dBµY Att 10 dB SW SGL Count 100/100 @1Rm AvgPwr	1 2 C Spectrum 3 C Spectr	rum 4 ① 🕅 🕅 🕅
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 d8µV Att Att 10 d8 sw SGL Count 100/100 917m AvgPwr 90 d8µV 90 d8µV	■ RBW 1 MHz ■ RBW 1 MHz T 1 ms ■ VBW 3 MHz Mode Auto Sweep	nim 4 🗴 🕅
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att 10 dB SW SGL Count 100/100 90 dBµV 90 dBµV 90 dBµV	1 2 C Spectrum 3 C Spectr	num 4 ③ 🕅
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 d8µV Att Att 10 d8 sw SGL Count 100/100 917m AvgPwr 90 d8µV 90 d8µV	1 2 C Spectrum 3 C Spectr	num 4 ③ 🕅
Restricted band // Horizontal //	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att 10 dB SW SGL Count 100/100 90 dBµV 90 dBµV 90 dBµV	1 2 C Spectrum 3 C Spectr	num 4 ③ 🕅
	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att Att 10 dB sw SGL Count 100/100 Elm xvgPwr 90 dBµV 50 dBµV 80 dBµV 50 dBµV	1 2 C Spectrum 3 C Spectr	num 4 ③ 🕅
Restricted band // Horizontal // Blank	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att 10 dB sw SGL Count 100/100 ● IRm AvgPwr 90 dBµV 90 dBµV 90 dBµV 90 dBµV 60 dBµV 50 dBµV 50 dBµV 90 dBµV 90 dBµV	No. Spectrum 3 Spectrum 3 <td>rum 4 ③ 🕅</td>	rum 4 ③ 🕅
	Peak	Spectrum Spectrum Ref Level 100.00 dbµ/ Att 10 db sw SGL Count 100/100 10 m AvgPwr 90 dbµ/ 90 dbµ/ 80 dbµ/ 60 dbµ/ 50 dbµ/ 50 dbµ/	1 2 C Spectrum 3 C Spectr	num 4 ③ 🕅
	Peak	Spectrum Spectrum Ref Level 100.00 dbµ/ Att 10 db srw SGL Count 100/100 10 m AvgPwr 90 dbµ/ 90 dbµ/ 80 dbµ/ 90 dbµ/ 90 dbµ/ 90 dbµ/	No. Spectrum 3 Spectrum 3 <td>rum 4 ③ 🕎</td>	rum 4 ③ 🕎
	Peak	Spectrum Spectrum Ref Level 100.00 dbµ/ Att 10 db srw SGL Count 100/100 10 mb srw 90 dbµ/ 90 dbµ/ 80 dbµ/ 90 dbµ/ 90 dbµ/ 90 dbµ/	No. Spectrum 3 Spectrum 3 <td>rum 4 ③ 🕎</td>	rum 4 ③ 🕎
	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att 10 dB sw SGL Count 100/100 ● IRm AvgPwr 90 dBµV 90 dBµV 90 dBµV 90 dBµV 60 dBµV 90 dBµV 90 dBµV 90 dBµV 10 dBµV 90 dBµV 10 dBµV 90 dBµV 10 dBµV 90 dBµV 10 dBµV	No. Spectrum 3 Spectrum 3 <td>num 4 ③</td>	num 4 ③
	Peak	Spectrum Spectrum Ref Level 100.00 dbµ/ Att 10 db sw SGL Count 100/100 10m AvgPwr 90 dbµ/ 90 dbµ/ 90 dbµ/ 90 dbµ/ 9	No. Spectrum 3 Spectrum 3 <td>rum 4 ③ 🕅</td>	rum 4 ③ 🕅
	Peak	Spectrum Spectrum Ref Level 100.00 dBµV Att 10 dB sw SGL Count 100/100 ● IRm AvgPwr 90 dBµV 90 dBµV 90 dBµV 80 dBµV 90 dBµV 90 dBµV 90 dBµV	No. Spectrum 3 Spectrum 3 <td>num 4 ③ 🕅</td>	num 4 ③ 🕅
	Peak	Spectrum Spectrum Ref Level 100.00 dbµ/ Att 10 db sw SGL Court 100/100 11m AvgPwr 90 dbµ/ 90 dbµ/ 90 dbµ/ 90 dbµ/ 9	No. Spectrum 3 Spectrum 3 <td>num 4 3 4 4 4 5 5 3 3 4 8 4 5 5 3 5 0 0 0 4 5 5 3 5 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td>	num 4 3 4 4 4 5 5 3 3 4 8 4 5 5 3 5 0 0 0 4 5 5 3 5 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 4 5 3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0





1. No spurious emission were detected above 6 GHz.

2. Average test would be performed if the peak result were greater than the average limit.



Mode:	UNII-2C(VHT40)
Distance of measurement:	3 meter
Channel:	102

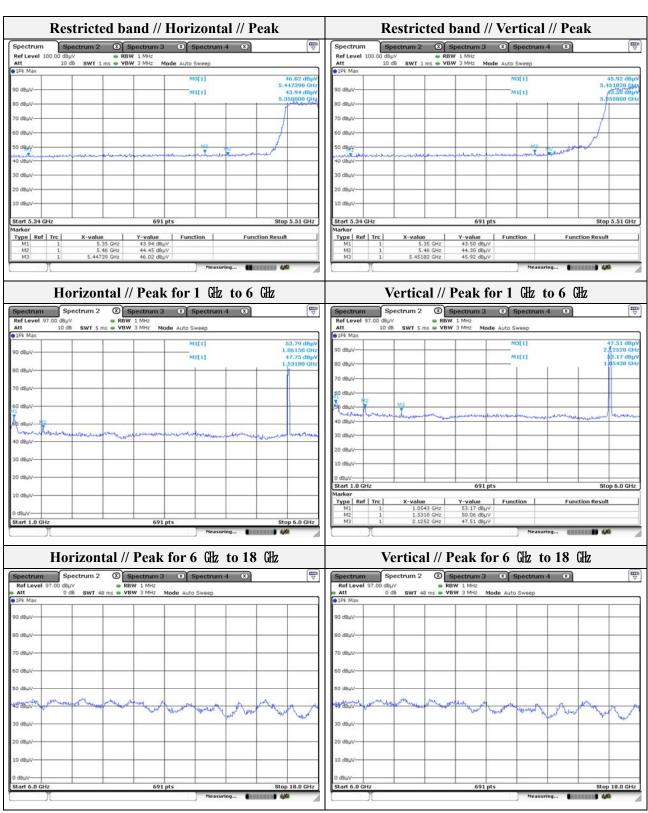
- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 061.50	53.79	Peak	Н	-8.29	-	44.44	74.00	29.56
1 531.80	47.75	Peak	Н	-5.38	-	44.28	74.00	29.72
1 054.30	53.17	Peak	V	-8.33	-	45.50	74.00	28.50
1 531.80	50.06	Peak	V	-5.38	-	42.37	74.00	31.63
2 125.20	47.51	Peak	V	-0.67	-	44.84	68.20	23.36

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 447.39	46.02	Peak	Н	7.83	-	53.85	74.00	20.15
5 451.82	45.92	Peak	V	7.82	-	53.74	74.00	20.26



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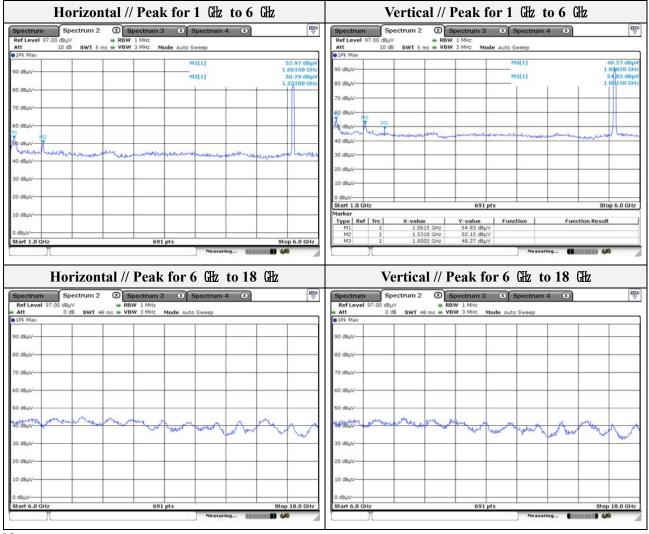


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Mode:	UNII-2C(VHT40)
Distance of measurement:	3 meter

Channel:	118

- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 061.50	52.97	Peak	Н	-8.29	-	44.68	74.00	29.32
1 531.80	50.29	Peak	Н	-5.38	-	44.91	74.00	29.09
1 061.50	54.83	Peak	V	-8.29	-	46.54	74.00	27.46
1 531.80	52.15	Peak	V	-5.38	-	46.77	74.00	27.23
1 850.20	48.27	Peak	V	-2.35	-	45.92	68.20	22.28



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Mode:	UNII-2C(VHT40)
Distance of measurement:	3 meter

Channel: 134

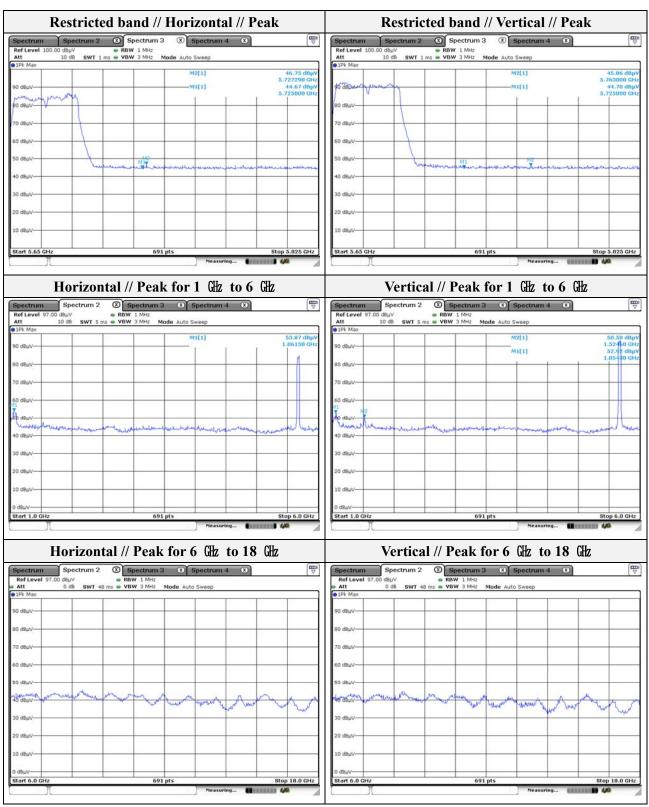
- Spurio	us							
Frequency (畑)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 061.50	53.87	Peak	Н	-8.29	-	45.58	74.00	28.42
1 054.30	52.92	Peak	V	-8.33	-	44.59	74.00	29.41
1 524.60	50.58	Peak	V	-5.45	-	45.13	74.00	28.87

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 727.90	46.75	Peak	Н	8.79	-	55.54	68.20	12.66
5 763.00	45.86	Peak	V	8.95	-	54.81	68.20	13.39



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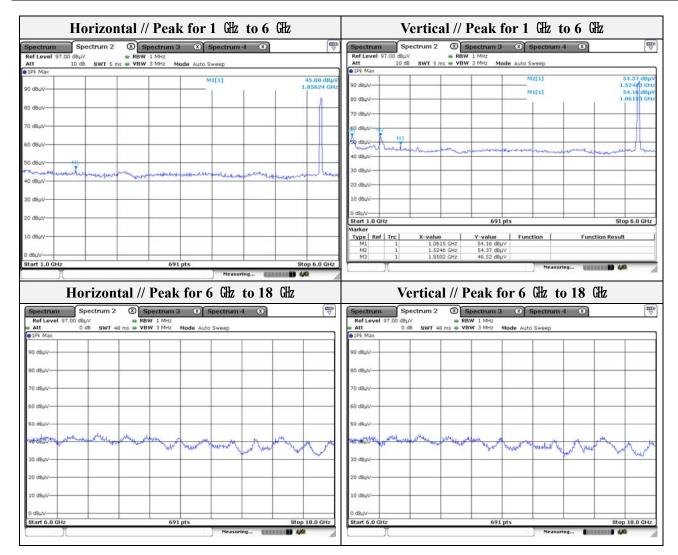


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Mode:	UNII-2C(VHT40)
Distance of measurement:	3 meter

Channel:	142

<u>- Spurio</u>	us							
Frequency (胜)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 856.40	45.88	Peak	Н	-2.29	-	43.59	68.20	24.61
1 061.50	54.16	Peak	V	-8.29	-	45.87	74.00	28.13
1 524.60	54.37	Peak	V	-5.45	-	48.92	74.00	25.08
1 850.20	48.52	Peak	V	-2.35	-	46.17	68.20	22.03



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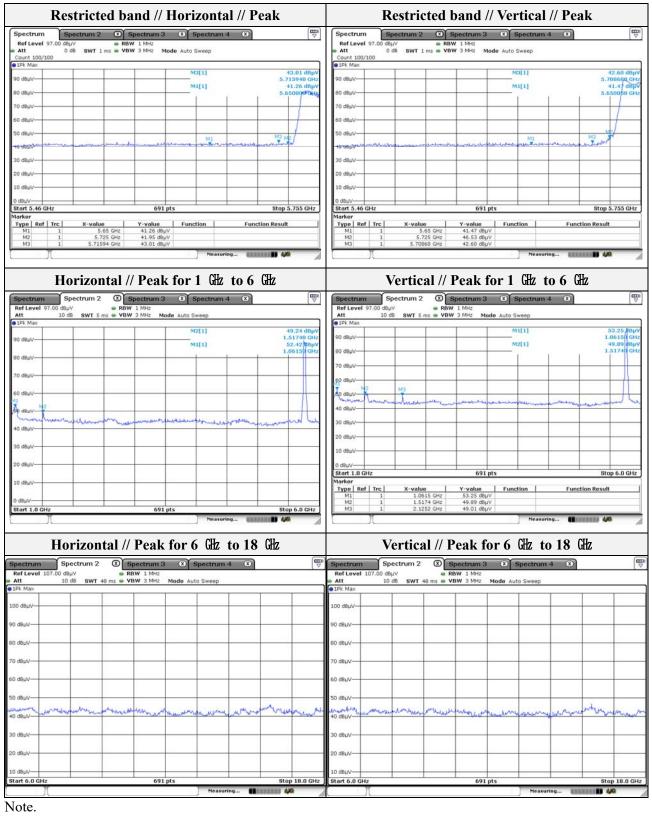
Mode:	UNII-3(VHT40)
Distance of measurement:	3 meter
Channel:	151

- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 061.50	52.42	Peak	Н	-8.29	-	44.13	74.00	29.87
1 517.40	49.24	Peak	Н	-5.51	-	43.73	74.00	30.27
1 061.50	53.25	Peak	V	-8.29	-	44.96	74.00	29.04
1 517.40	49.89	Peak	V	-5.51	-	44.38	74.00	29.62
2 125.20	49.01	Peak	V	-0.67	-	48.34	68.20	19.86

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 715.94	43.01	Peak	Н	8.73	-	51.74	109.66	57.92
5 725.00	41.95	Peak	Н	8.77	-	50.72	122.20	71.48
5 708.68	42.60	Peak	V	8.70	-	51.30	107.63	56.33
5 725.00	46.53	Peak	V	8.77	-	55.30	122.20	66.90



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1. No spurious emission were detected above 6 GHz.

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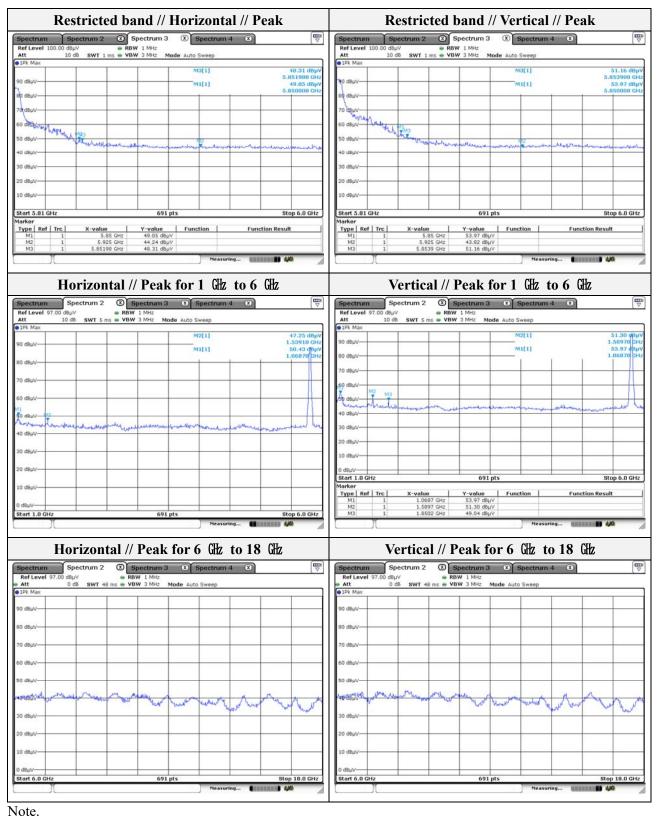
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Mode:	UNII-3(VHT40)
Distance of measurement:	3 meter
Channel:	159

- Spurio	us							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 068.70	50.43	Peak	Н	-8.25	-	42.18	74.00	31.82
1 539.10	47.25	Peak	Н	-5.31	-	41.94	74.00	32.06
1 068.70	53.97	Peak	V	-8.25	-	45.72	74.00	28.28
1 589.70	51.30	Peak	V	-4.85	-	46.45	74.00	27.55
1 850.20	49.04	Peak	V	-2.35	-	46.69	68.20	21.51

- Band e	dge							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 850.00	49.06	Peak	Н	9.32	-	58.38	122.20	63.82
5 851.98	48.31	Peak	Н	9.33	-	57.64	117.69	60.05
5 850.00	43.97	Peak	V	9.32	-	53.29	122.20	68.91
5 853.90	51.16	Peak	V	9.33	-	60.49	113.31	52.82





1. No spurious emission were detected above 6 GHz.

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Mode:	UNII-1(VHT80)
Distance of measurement:	3 meter

~1 1		
Channel:	42	

- Spurio	us							
Frequency (胜)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµV/m)	Margin (dB)
1 068.70	51.08	Peak	Н	-8.25	-	42.83	74.00	31.17
1 517.40	47.39	Peak	Н	-5.51	-	41.88	74.00	32.12
1 814.00	48.05	Peak	Н	-2.68	-	45.37	68.20	22.83
1 061.50	55.35	Peak	V	-8.29	-	47.06	74.00	26.94
1 517.40	48.63	Peak	V	-5.51	-	43.12	74.00	30.88
1 850.20	47.94	Peak	V	-2.35	-	45.59	68.20	22.61

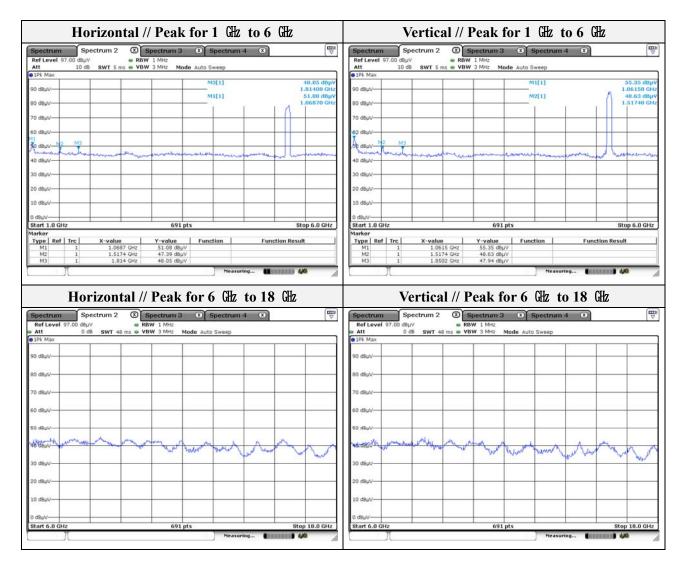
-	Band	e	edge	
Fr	oquoney		Ιονο	1

Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
4 646.40	46.22	Peak	Н	5.79	-	52.01	74.00	21.99
5 123.10	50.49	Peak	V	8.26	-	58.75	74.00	15.25
5 150.00	47.78	Peak	V	8.22	-	56.00	74.00	18.00
5 115.10	34.09	Average	V	8.27	3.43	45.79	54.00	8.21
5 150.00	33.00	Average	V	8.22	3.43	44.65	54.00	9.35



Restricted band // Horizontal // Peak	Restricted band // Vertical // Peak
Spectrum 2 (3) Spectrum 3 (3) Spectrum 4 (3)	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 8
Ref Level 100.00 dBµV	Ref Level 100.00 dBµV RBW 1 MHz Att 10 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep
1Pk Max M3[1] 46.22 dBµV	●1Pk Max M3[1] 50.49 d8µ
90 dayV	90 dBµV
4.50000 GHz	80 dBuV
70 dBµV	70 dbµV
60 dBµV	60 d8µV
50 Berlin Million and an and a second and as second and a	50 dBuV M1 LUXU
stant and a second and a second and the second and	40 UBLY
30 d8µV	30 d8µV-
20 dBuV	20 dBuV
10 dBµV	10 dBuV
Stort 4.4 GHz 691 pts Stop 5.19 GHz	Start 4.4 GHz 691 pts Stop 5.19 GHz Marker
Type Ref Trc X-value Y-value Function Function Result	Type Ref Trc X-value Y-value Function Function Result
M1 1 4.5 GHz 42.62 dBμV M2 1 5.15 GHz 43.15 dBμV	M1 1 4.5 GHz 43.59 dBpV M2 1 5.15 GHz 47.78 dBpV
M3 1 4.6464 GHz 46.22 dBµV Measuring 444	M3 1 5.1231 GHz 50.49 dBµV
Heasuring	Heasuring
Restricted band // Horizontal // Average	Restricted band // Vertical // Average
Restricted band // Horizontal // Average	Restricted band // Vertical // Average
Restricted band // Horizontal // Average	Spectrum Spectrum 2 O Spectrum 3 Spectrum 4 Effective Ref Level 100.00 dBµV
Restricted band // Horizontal // Average	Spectrum Spectrum 2 O Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ ²
Restricted band // Horizontal // Average	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 E E Ref Level 10.00 0BµV ● RBW 1 MHz E E
Restricted band // Horizontal // Average	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 E Ref Level 100.00 08µV ● RBW 1 MHz Att 10 db SWT 1 ms ● VBW 3 MHz Mode Auto Sweep SGL Count 100/100 ● IRm AvgPwr M3(1) 34.09 dBµ 90 dBµV N1[1] 324.02 dBµ
Restricted band // Horizontal // Average	Spectrum Spectrum 2 O Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµV
Restricted band // Horizontal // Average	Spectrum Spectrum 2 O Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµV
Restricted band // Horizontal // Average	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµV
Restricted band // Horizontal // Average	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 The section 100.00 dbp/ end/or 1
	Spectrum Spectrum 2 O Spectrum 3 Spectrum 4 C Ref Level 10.00 08µV ● RBW 1MHz 1
Restricted band // Horizontal // Average Blank	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/v
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµV # RBW 1 MHz Mode Auto Sweep SGL Count 100/100 SWT 1 ms # VBW 3 MHz Mode Auto Sweep SGL Count 100/100 SUL SGL Count 100/100
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 10.00 0BµV # RBW 1 M4z Mode Auto Sweep SGL Count 100/100 918m Aut 10 db SWT 1 ms # VBW 3 M4z Mode Auto Sweep SGL Count 100/100 918m Aut M3[1] 34.09 dBp SGL Count 100/100 918m AvgPwr M3[1] 34.09 dBp SGL Count 100/100 90 BU/V M1[1] 32.62 dBp SGL Count 100/100 90 Bu/V SGL Count 100/100 SGL Count 100/100 SGL Count 100/100 90 Bu/V SGL Count 100/100 SGL Count 100/100 SGL Count 100/100
	Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 100.00 dBµ/ Att @ RBW 1 M4z Mode Auto Sweep SdL Count 100/100 © If m AvgPwr M3[1] 34.00 dBµ/ Att SdL Count 100/100 © If m AvgPwr M3[1] SdL Count 100/100 © If m AvgPwr If m AvgPwr If m AvgPwr If m AvgPwr If m AvgPwr If m AvgPwr If m AvgPwr If m AvgPwr If m Avg





1. No spurious emission were detected above 6 GHz.

2. Average test would be performed if the peak result were greater than the average limit.



Mode:	UNII-2A(VHT80)
Distance of measurement:	3 meter
Channel:	58

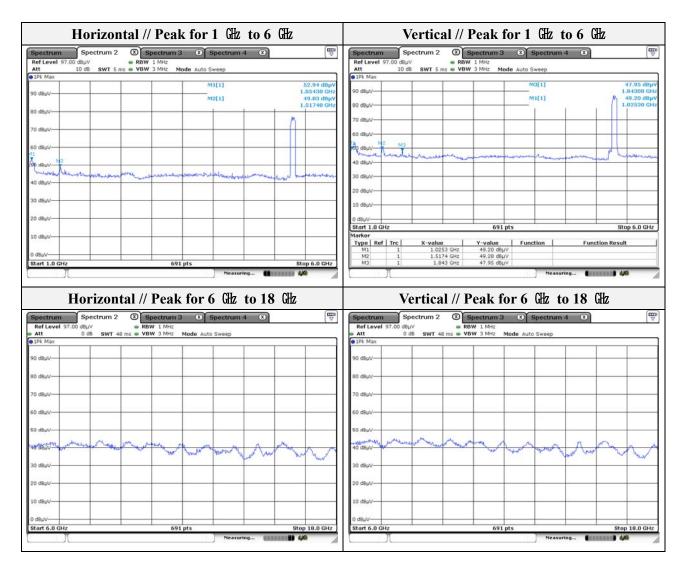
- Spurio	us							
Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 054.30	52.94	Peak	Н	-8.33	-	44.61	74.00	29.39
1 517.40	49.03	Peak	Н	-5.51	-	43.52	74.00	30.48
1 025.30	49.20	Peak	V	-8.50	-	40.70	74.00	33.30
1 517.40	49.28	Peak	V	-5.51	-	43.77	74.00	30.23
1 843.00	47.95	Peak	V	-2.42	-	45.53	68.20	22.67

Frequency (Mb)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 364.07	45.18	Peak	Н	7.93	-	53.11	74.00	20.89
5 352.49	49.46	Peak	V	7.94	-	57.40	74.00	16.60
5 352.26	35.15	Average	V	7.94	4.97	48.06	54.00	5.94



Restricted band // Horizontal //		Restr	icted band // Ve	
Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Ref Level 100.00 dby/ Ref Level 100.00 dby/ Ref Level 100.00 dby/		Spectrum Spectrum Ref Level 100.00 dBµV	2 Spectrum 3 (X) RBW 1 MHz	Spectrum 4 🛞
Att 10 dB SWT 1 ms . VBW 3 MHz Mode Auto Sweep		Att 10 dB SW	1 ms SVBW 3 MHz Mode Auto	o Sweep
1Pk Max M3[1]	45.18 dBpV	1Pk Max		M3[1] 49.46 d8
90 d8µV	5.364070 GHz 43.55 dBpV	90 d8µV		5.352490 G M1[1] 47.55 d8
80 dBuV	5.350000 GHz	BO dBuV		5.350000 G
waynest				
70 d8µV		70 d8µV		
60 d8µV		60 dBµV		
io day		50 dBuV	3 was on a variant of a state and a state	M2
10 UBUV	manantim	40 dBµV	and the state and and	and a second
30 d8µV-		30 d8µV-		
0.000.0				
0 d8µV		20 dBµV		
dBhA		10 dBµV		
CF 5.39 GHz 691 pts	Span 160.0 MHz	CF 5.39 GHz	691 pts	Span 160.0 MH
M1 1 5.35 GHz 43.55 dBµV M2 1 5.46 GHz 44.62 dBµV M3 1 5.36407 GHz 45.18 dBµV		M2 1 M3 1 5.	5.35 GHz 47.55 dBµV 5.46 GHz 45.22 dBµV 35249 GHz 49.46 dBµV	
Restricted band // Horizontal // A	verage		ted band // Vert	8
		Spectrum Spectrum Ref Level 100.00 dBµV	Spectrum 3 Spectrum 3 RBW 1 MHz 1 ms VBW 3 MHz Mode Auto	tical // Average





1. No spurious emission were detected above 6 GHz.

2. Average test would be performed if the peak result were greater than the average limit.



Mode:	UNII-2C(VHT80)
Distance of measurement:	3 meter
Channel:	106

- Spurio	us							
Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 047.00	48.25	Peak	Н	-8.37	-	39.88	74.00	34.12
1 850.20	47.53	Peak	Н	-2.35	-	45.18	68.20	23.02
1 336.50	54.25	Peak	V	-6.63	-	47.62	74.00	26.38
1 850.20	48.19	Peak	V	-2.35	-	45.84	68.20	22.36
2 125.20	48.52	Peak	V	-0.67	-	47.85	68.20	20.35

Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
5 452.31	45.11	Peak	Н	7.82	-	52.93	74.00	21.07
5 442.47	47.71	Peak	V	7.83	-	55.54	74.00	18.46
5 460.00	47.78	Peak	V	7.81	-	55.59	74.00	18.41
5 402.37	33.73	Average	V	7.88	3.70	45.31	54.00	8.69
5 460.00	34.40	Average	V	7.81	3.70	45.91	54.00	8.09

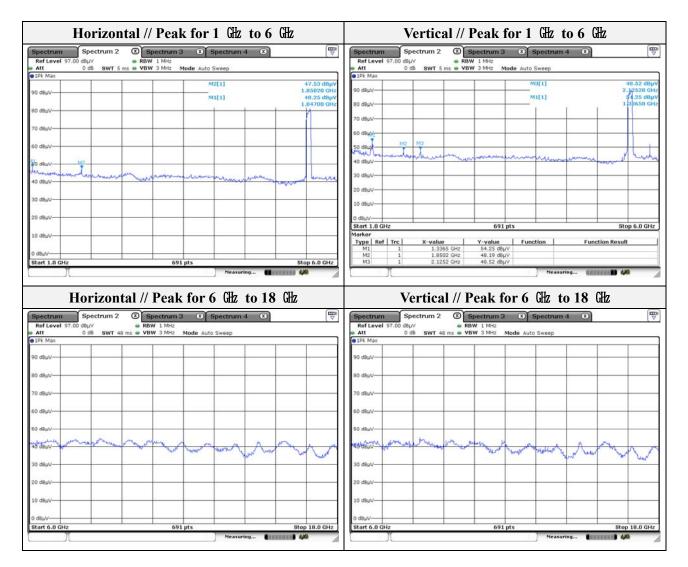


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Restricted band // Horizontal // Peak	Restricted band // Vertic	
ectrum Spectrum 2 (3) Spectrum 3 (3) Spectrum 4 (3)		rum 4 🛞
fLevel 100.00 dBy B RBW 1 MHz t 10 dB SWT 1 ms WBW 3 MHz Mode Auto Sweep	Ref Level 100.00 dBμV	p
k Max M3[1] 45.11 dBµ	1Pk Max MO[1]	47.71 dBp
8uV 5.452310 GH	00 40 41	5.442470 GH
5.35000 GP		45,15 dB 5.450000 G
	80 dBuV	
μν	70 dBµV	
v	60 d8µV	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S0 dquy	M2 man
lees a sugar a substance of the second state and the second state of the second state	40 dBuy	mathematical
N		
	30 dBuV	
	20 d8µV	
	10 d8µV	
34 GHz 691 pts Stop 5.51 GHz		
Ref Trc X-value Y-value Function Function Result	Start 5.34 GHz 691 pts Marker	Stop 5.51 G
1 1 5.35 GHz 43.69 dByV 1 5.46 GHz 43.63 dByV	Type Ref Trc X-value Y-value Function M1 1 5.35 GHz 43.15 dBµV 43.15 dBµV	Function Result
1 5.45231 GHz 45.11 dBµV	M2 1 5.46 GHz 47.78 dBµV	
Neasuring		leasuring
Restricted band // Horizontal // Average	Restricted band // Vertical	l // Average
	Restricted band // Vertical	l // Average
	Restricted band // Vertical	1 // Average
	Restricted band // Vertical	1 // Average
	Restricted band // Vertical	1 // Average
	M Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3	1 // Average
	N Restricted band // Vertical Spectrum © Spectrum 3 © Spectrum Ref Level 100.00 dBµ/ Att 0 dB sWT 1 ms ♥ RBW 1 MHZ Wode Auto Sweep Global Count 100/100 ● IBm AvgPwr Mode Auto Sweep 90 dBµ/ 80 dBµ/ 70 dBµ/ 70 dBµ/ M0[1] M0[1]	1 // Average
	N Restricted band // Vertical Spectrum Spectrum 3	1 // Average
Restricted band // Horizontal // Average	N Restricted band // Vertical Spectrum Spectrum 3	1 // Average
	Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3 Spectrum 3	1 // Average
Restricted band // Horizontal // Average	N Restricted band // Vertica Spectrum Spectrum 2 Spectrum 3 Spectrum 3 Spectrum 3 Ref Level 100.00 dBµV # RBW 1 MH2 Mode Auto Sweep Mode Auto Sweep SGL Count 100/100 # RBW 1 MH2 Mode Auto Sweep Mode Auto Sweep SGL Count 100/100 # RBW 1 MH2 Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep SG dBµV Mode Auto Sweep Mode Auto Sweep Mode Auto Sweep	1 // Average
Restricted band // Horizontal // Average	Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3 Spectrum 3	1 // Average
Restricted band // Horizontal // Average	Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3 Spectrum 3	1 // Average
Restricted band // Horizontal // Average	Note: Spectrum Spectrum Spectrum 3 Spectrum Spectrum 3 Spectrum Ref Level 100.00 dBµ/V © RBW 1 MH2 Mode Auto Sweep Mode Auto Sweep Site Count 100/100 0 dB SWT 1 ms VBW 3 MH2 Mode Auto Sweep Site Count 100/100 0 dBµ/V Msd[1] Msd[1] Site dBuV 10 dBµ/V 10 dBµ/V 10 dBµ/V	1// Average
Restricted band // Horizontal // Average	Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3 Spectrum 3	1 // Average
Restricted band // Horizontal // Average	Restricted band // Vertical Spectrum Spectrum 2 Spectrum 3 Spectrum 3	1 // Average
Restricted band // Horizontal // Average	Note: Spectrum Sector Spectrum Spectrum 2 Spectrum 3 Spectrum Spectrum 2 Spectrum 3 Spectrum Ref Level 100.00 dBµ/ Note: Node Auto Sweep Spectrum 3 Spectrum 3 Spectrum Ref Level 100.00 dBµ/ Note: Node Auto Sweep Spectrum 3 Spectrum 3 Spectrum Spectrum 3 Spectrum 3 Spectrum Spectrum 3 Spectrum 3 Spectrum Node Auto Sweep Spectrum 3 Mitz Mode Auto Sweep Mode Auto Sweep <	39.73 dBy 5.402370 dP 5.35000 dP 5.350000 dP 5.35000 dP 5.35000 dP 5.350000 dP 5.350000 dP 5.35000 dP 5.350000 dP 5.350000 dP 5.350000 dP 5.3500000000000000000000000000000000000





1. No spurious emission were detected above 6 GHz.

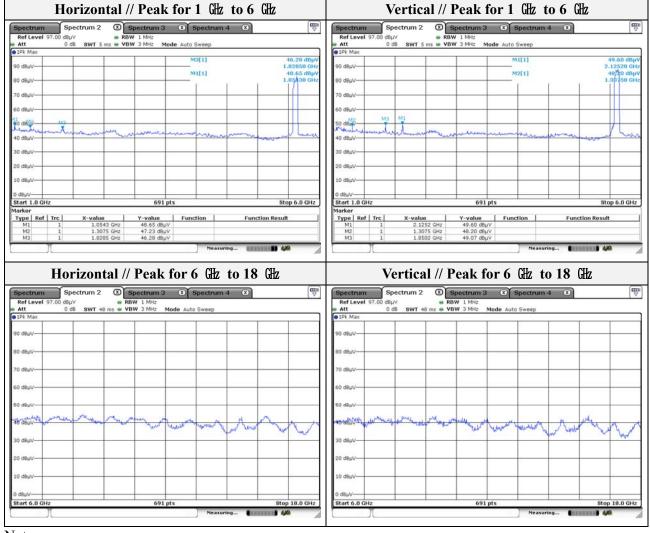
2. Average test would be performed if the peak result were greater than the average limit.



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Mode:		UNII-20	C(VHT80)					
Distance of	f measurem	nent: 3 meter						
Channel:		122						
- Spurio	us							
Frequency (Mbz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 054.30	48.65	Peak	Н	-8.33	-	40.32	74.00	33.68
1 307.50	47.23	Peak	Н	-6.82	-	40.41	74.00	33.59
1 829.50	46.28	Peak	Н	-2.54	-	43.74	68.20	24.46
1 307.50	48.20	Peak	V	-6.82	-	41.38	74.00	32.62
1 850.20	49.07	Peak	V	-2.35	-	46.72	68.20	21.48
2 125.20	49.60	Peak	V	-0.67	-	48.93	68.20	19.27
	., 100			,				



Note.

1. No spurious emission were detected above 6 GHz.

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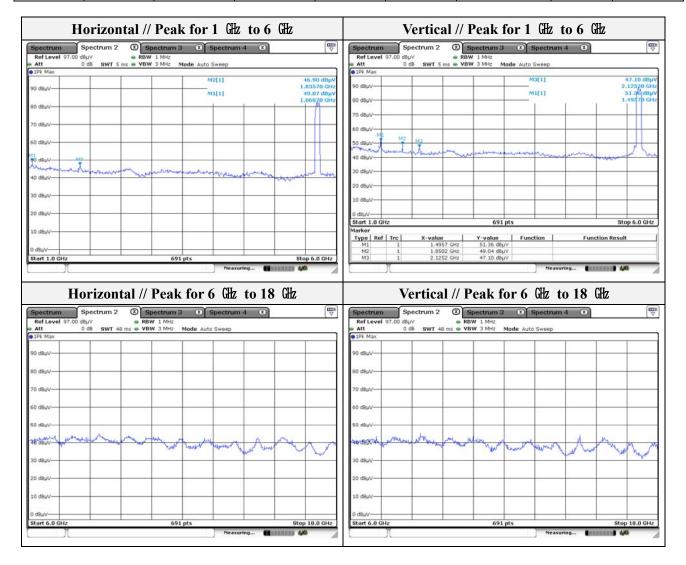


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Mode:		UNII-2	C(VHT80)					
Distance o	f measureme	ent: 3 meter						
Channel:		138						
- Spurio	us							
Frequency	Level	Detect mode	Ant. Pol.	CF	DCF	Field strength	Limit	Margin
(MHz)	(dBµV)		(H/V)	(dB)	(dB)	(dBµV/m)	(dBµN/m)	(dB)

(Mar)	(dBµV)	Detect mode	Ant. Pol. (H/V)	(dB)	(dB)	(dBµN/m)	(dBµV/m)	(dB)
1 068.70	49.07	Peak	Н	-8.25	-	40.82	74.00	33.18
1 835.70	46.90	Peak	Н	-2.48	-	44.42	68.20	23.78
1 495.70	51.36	Peak	V	-5.69	-	45.67	74.00	28.33
1 850.20	49.04	Peak	V	-2.35	-	46.69	68.20	21.51
2 125.20	47.10	Peak	V	-0.67	-	46.43	68.20	21.77



Note.

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Mode:	UNII-3(VHT80)
Distance of measurement:	3 meter
Channel:	155

- Spurio	- Spurious							
Frequency (畑)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1 068.70	48.33	Peak	Н	-8.25	-	40.08	74.00	33.92
1 814.04	47.58	Peak	Н	-2.68	-	44.90	68.20	23.30
2 125.20	46.86	Peak	Н	-0.67	-	46.19	68.20	22.01
1 054.30	50.15	Peak	V	-8.33	-	41.82	74.00	32.18
1 850.20	49.76	Peak	V	-2.35	-	47.41	68.20	20.79
2 125.20	48.68	Peak	V	-0.67	-	48.01	68.20	20.19

- Band edge // Below 5725 Mz

Duna								
Frequency (MHz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 696.30	44.01	Peak	Н	8.64	-	52.65	102.46	49.81
5 725.00	43.71	Peak	Н	8.77	-	52.48	122.20	69.72
5 721.06	51.15	Peak	V	8.76	-	59.91	113.22	53.31
5 725.00	50.52	Peak	V	8.77	-	59.29	122.20	62.91

Band edge // Above 5850 Mz

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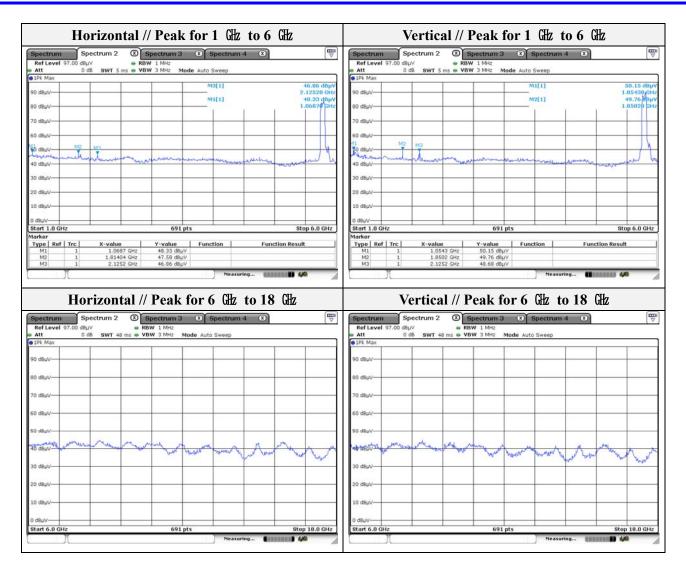
Frequency (Mz)	Level (dBµV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
5 867.37	49.78	Peak	Н	9.39	-	59.17	107.34	48.17
5 850.00	52.72	Peak	Н	9.32	-	62.04	122.20	60.16
5 867.10	55.39	Peak	V	9.38	-	64.77	107.41	42.64



Spectrum Spectrum 2	Spectrum 3 Spectrum 4	8	Spectrum Spectrum	2 8 Spectrum 3 8 Spec	ctrum 4 🛞
Ref Level 97.00 d8µ∨	RBW 1 MHz		Ref Level 97.00 dBµV	RBW 1 MHz	and the second
Att 0 dB SWT 1 ms 1Pk Max	s S VBW 3 MHz Mode Auto Sweep		Att 0 dB SWT	1 ms VBW 3 MHz Mode Auto Swee	ер
	M3[1]	44.01 d8µV		M3[1]	
0 dBµV		5.696300 GHz	90 dBµV		5.721060 G
0 dBµV	M1[1]	42.04 dBpV 5.650000 GHz	80 dBµV	M1[1]	42.82 d8 5.650000 6
10.02524.04	1 1 1	1 mil	5,0 × 0, 25,0 × 2		
) dBµV			70 dBµV		
dBµV-			60 dBµV		
					Map
dBµV	MI	M3 Mg	50 dBµV		MI Tempermeter Art to
BBDA	manus and a contraction of the second	antaumantonetrophent	40 dBUV	with month the second second second	I manunal and
dBµV-			30 d8uV		
oup t			and motion		
dBµV			20 dBµV		
dBuV			10 d8µV-		
			C = 2.2		
iBµV-		0100 5 355 001	0 dBµV-		
art 5.46 GHz rker	691 pts	Stop 5.755 GHz	Start 5.46 GHz Marker	691 pts	Stop 5.755 G
pe Ref Trc X-value	Y-value Function	Function Result	Type Ref Trc X-va	lue Y-value Function	Function Result
M1 1 5.65 M2 1 5.725			M1 1 M2 1	5.65 GHz 42.82 dBµV 5.725 GHz 50.52 dBµV	
M3 1 5.6963	GHz 44.01 dBµV				
	/ Horizontal // Peak //	Above 5850 MHz	Restricted ba	nd // Vertical // Peal	
pectrum Spectrum 2	/ Horizontal // Peak //	Above 5850 MHz	Restricted ba	nd // Vertical // Peal 2 © Spectrum 3 ® Spec	
ectrum Spectrum 2	/ Horizontal // Peak //	Above 5850 MHz	Restricted ba	nd // Vertical // Peal	k // Above 5850 Mz
Spectrum Spectrum 2 of Level 99.00 dBμV tt 10 dB SWT 1 ms	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep	Above 5850 Mz	Restricted ba	nd // Vertical // Peal 2 Spectrum 3 Spec RBW 1 MHz 1 ms = VBW 3 MHz Mode Auto Swet	k // Above 5850 Mz
Spectrum Spectrum 2 of Level 99.00 dBµV 10 dB tt 10 dB Pk Max	/ Horizontal // Peak //	Above 5850 Mz	Restricted ba	nd // Vertical // Peal	k // Above 5850 MHz
Рестлит Урестлит 2 of Level 99.00 dBµV t 10 dB SWT 1 ms Pk Мах	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Restricted ba	nd // Vertical // Peal 2 Spectrum 3 Spec RBW 1 MHz 1 ms = VBW 3 MHz Mode Auto Swet	k // Above 5850 Mb
Spectrum Spectrum 2 of Level 99.00 dBµV 10 dB tt 10 dB Pk Max dBµV	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep MD[1]	Above 5850 Miz	Restricted ba	nd // Vertical // Peal 2 ③ Spectrum 3 ④ Spect 1 ms = VBW 3 M4z Mode Auto Swee M3[1]	k // Above 5850 MHz
Spectrum Spectrum 2 of Level 99.00 dbµV t t 10 db SWT 1 ms % Max dbµV dbµV dbµV dbµV dbµV	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep MD[1]	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Restricted ba	nd // Vertical // Peal 2 ③ Spectrum 3 ③ Spect 1 ms = VBW 3 M4z Mode Auto Swee M3(1)	k // Above 5850 MHz
естит 2 Spectrum 2 If Level 99.00 dbµV t 10 db SWT 1 ms dbµV dbµV dbµV	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep MD[1]	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Restricted ba	nd // Vertical // Peal 2 ③ Spectrum 3 ③ Spect 1 ms = VBW 3 M4z Mode Auto Swee M3(1)	k // Above 5850 Mb
Spectrum Spectrum 2 of Level 99.00 dbµV t t 10 db SWT 1 ms %r Max dbµV dbµV dbµV dbµV dbµV dbµV dbµV dbµV	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep MD[1]	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Spectrum Spectrum Ref Level 100.00 dBµV 10 dB Att 10 dB swr 90 dBµV 90 dBµV 90 dBµV 20 dBµV 90 dBµV 90 dBµV	nd // Vertical // Peal 2 ③ Spectrum 3 ③ Spect 1 ms = VBW 3 M4z Mode Auto Swee M3(1)	k // Above 5850 MHz
Spectrum Spectrum 2 If Level 99.00 dbµV If Level 99.00 dbµV It 10 db SWT 1 ms Bk Max dbµV dbµV dbµV dbµV dbµV dbµV dbµV dbµV	/ Horizontal // Peak // © Spectrum 3 ③ Spectrum 4 ■ RBW 1 MHz ■ VBW 3 MHz Mode Auto Sweep MD[1]	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Spectrum Spectrum Ref Level 100.60 68µV IPIE Max 10 db sw1 90 8µV 80 60 70 68µV 70 60 60 68µV 111 111	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum 2 It Level 99.00 dbµV t t 10 dB SWT 1 ms dbµV dbµV dbµV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Spectrum Spectrum Ref Level 100.00 dBµV 10 dB Att 10 dB swr 90 dBµV 90 dBµV 90 dBµV 20 dBµV 90 dBµV 90 dBµV	nd // Vertical // Peal	k // Above 5850 MHz ctrum 4 C ep 5.95700 5.950000 5.950000 C 5.9500000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.9500000 C 5.9500000 C 5.9500000000000000000000000000000000000
Spectrum Spectrum 2 If Level 99.00 dBµV t 10 dB SWT 1 ms % Max 10 dB SWT 1 ms dBµV dBµV	Messuring	Above 5850 M₂ ♥ 49.78 dByV 5.867370 dbyV 40.80 dByV	Spectrum Spectrum Ref Level 100.60 68µV IPIE Max 10 db sw1 90 8µV 80 60 70 68µV 70 60 60 68µV 111 111	nd // Vertical // Peal	k // Above 5850 MHz ctrum 4 C ep 5.95700 5.950000 5.950000 C 5.9500000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.9500000 C 5.9500000 C 5.9500000000000000000000000000000000000
Spectrum Spectrum 2 If Level 99.00 dBµV t 10 dB SWT 1 ms % Max 00 dB WT 1 ms dBµV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Restricted ba	nd // Vertical // Peal	k // Above 5850 MHz ctrum 4 C ep 5.95700 5.950000 5.950000 C 5.9500000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.950000 C 5.9500000 C 5.9500000 C 5.9500000000000000000000000000000000000
Spectrum Spectrum 2 If Level 99.00 dBµV t 10 dB SWT 1 ms % Max 00 dB WT 1 ms dBuV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Restricted ba	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum Spectrum 2 If Level 99.00 dBµV t 10 dB SWT 1 ms % Max 00 dB WT 1 ms dBuV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Restricted ba	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum Spectrum 2 If Level 99.00 dbµV If Level 99.00 dbµV It 10 db SWT 1 ms BkW dbµV dbµV dbµV dbµV dbµV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Spectrum Spectrum Ref Level 100.00 dBµ/v 10 dB swi att 12 dB swi 10 dB swi 90 dBµ/v 10 dB swi	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum Spectrum 2 If Level 99.00 dbµV If Level 99.00 dbµV It 10 db SWT 1 ms BkW dbµV dbµV dbµV dbµV dbµV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Restricted ba Spectrum Spectrum Ref Level 100.00 dBµ/ Att 10 dB Sw1 P0 dBµ/ 10 dB Sw1 90 dBµ/ 90 dBµ/ 60 dBµ/ 10 dB Sw1 50 dBµ/ 10 dB Sw1 40 dBµ/ 10 dB Sw1 30 dBµ/ 30 dBµ/	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum 2 If Level 99.00 dbµV t 3k Max dbµV	Measuring / Horizontal // Peak // Spectrum 3 Spectrum 4 RDW 1 MH: VBW 3 MH: Mode Auto Sweep M3[1] M1[1]	Above 5850 MHz	Spectrum Spectrum Ref Level 100.00 dBµ/v 10 dB swi att 12 dB swi 10 dB swi 90 dBµ/v 10 dB swi	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum Spectrum 2 of Level 99.00 dbµV 10 db SWT 1 ms tt 10 db SWT 1 ms dbµV dbµV dbµV	Messuring / Horizontal // Peak // © Spectrum 3 ® Spectrum 4 RBW 1 MH2 Node Auto Sweep No[1] Numere with a start of the second seco	Above 5850 MHz	Spectrum Spectrum Ref Level 100.00 dBµV 10 dB Att 10 dB SW1 90 dBµV 80 dBµV 80 dBµV 90 dBµV 90 dBµV 10 dB 90 dBµV 90 dBµV 10 dB 90 dBµV 90 dBµV 10 dB 90 dBµV 90 dBµV 10 dBµV 90 dBµV 10 dBµV 10 dBµV 90 dBµV 10 dBµV 10 dBµV 90 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV 10 dBµV	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum Spectrum 2 If Level 99.00 dbµV Ims It 10 db SWT 1 ms BkW dbµV dbµV dbµV dbµV dµV db		Above 5850 Mbz	Restricted ba	nd // Vertical // Peal	k // Above 5850 MHz
Spectrum 2 of Level 99.00 dbµV t 10 db sk Max dbµV		Above 5850 MHz	Restricted ba Spectrum Ref Level 100.00 dBµ// Att Didde SWI PO dBµ// SO dBµ// PO dBµ// SO dBµ//	nd // Vertical // Peal	k // Above 5850 MH



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Note.



Test results (18 GHz to 40	(Hz) – Worst case
Mode:	UNII-3
Distance of measurement:	3 meter
Channel:	165(worst case)

Horizontal	Vertical				
Spectrum 2 3	Spectrum Spectrum 2 🕚				
Ref Level 87.00 dBµV ■ RBW 1 MHz Att 0 dB SWT 88 ms VBW 3 MHz Mode Auto Sweep	Ref Level 87.00 dBµV				
1Pk Max	1Pk Max				
30 d8µV	80 d8µV				
70 dBµV	70 d8µv				
50 dBµV	60 dBµV				
50 dBuV	50 dBµV				
10 dbµV	40 dBµV				
Restread war where a super war where we want war where we have been and the service of the war where	Browship wander under operation when a set of we the marked and and Marian Marian				
20 d8µV	20 d8µv				
10 d8µV	10 dBµV				
D dBµV	0 d8µV				
10 dbuv-	-10 dbµV				
Start 18.0 GHz 691 pts Stop 40.0 GHz	Stort 18.0 GHz 691 pts Stop 40.0 GHz Neasuring				



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Appendix A. Measurement equipment

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration date.	Calibration due.
Spectrum Analyzer	R&S	FSV30	100736	1 year	2018.06.28 2019.01.09	2019.06.28 2020.01.09
Spectrum Analyzer	R&S	FSV40	101002	1 year	2018.06.29	2019.06.29
8360B Series Swept Signal Generator	HP	83630B	3844A00786	1 year	2018.01.22 2019.01.15	2019.01.22 2020.01.15
Power Meter	Anritsu	ML2495A	1438001	1 year	2018.01.25 2019.01.15	2019.01.25 2020.01.15
Pulse Power Sensor	Anritsu	MA2411B	1339205	1 year	2018.01.25 2019.01.15	2019.01.25 2020.01.15
Attenuator	HP	8494B	2630A12857	1 year	2018.01.18 2019.01.15	2019.01.18 2020.01.15
Loop Antenna	Schwarzbeck	FMZB1513	225	2 years	2017.05.10	2019.05.10
Trilog-broadband antenna	SCHWARZBECK	VULB 9163	9168-714	2 years	2018.11.26	2020.11.26
Horn Antenna	A.H	SAS-571	414	2 years	2017.02.15	2019.02.15
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1802	2 years	2017.09.04	2019.09.04
High Pass Filter	Wainwright Instrument Gmbh	WHJS3000- 10TT	1	1 year	2018.06.29	2019.06.29
Amplifier	R&S	SCU 01	100603	1 year	2018.11.26	2019.11.26
Preamplifier	AGILENT	8449B	3008A01742	1 year	2018.01.11 2019.01.08	2019.01.11 2020.01.08
EMI Test Receiver	R&S	ESR3	101781	1 year	2018.04.25	2019.04.25
EMI Test Receiver	R&S	ESU26	100551	1 year	2018.04.11	2019.04.11
Pulse Limiter	R&S	ESH3-Z2	101915	1 year	2018.11.26	2019.11.26
LISN	R&S	ENV216	101787	1 year	2018.01.31 2019.01.04	2019.01.31 2020.01.04
DC Power supply	EXTENDED	EX-1500H2	405410100030	1 year	2018.04.13	2019.04.13

Peripheral devices

Device	Manufacturer	Model No.	Serial No.	
Notebook Computer	SAMSUNG	NT-R519	ZKPA93ES900086Z	