

**KES Co., Ltd.**

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www.kes.co.kr

Test report No.:
KES-RF-23T0038
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Mode: 802.11g (6 Mbps)_ANT 2
Channel: 01
Distance of measurement: 3 meter

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 108.72	60.85	Peak	V	-9.25	-	51.60	74.00	22.40
1 397.33	52.12	Peak	H	-6.99	-	45.13	74.00	28.87
1 497.83	56.47	Peak	V	-6.68	-	49.79	74.00	24.21
1 596.83	53.28	Peak	H	-6.05	-	47.23	74.00	26.77
1 621.82	56.00	Peak	V	-5.76	-	50.24	74.00	23.76
1 685.82	53.02	Peak	H	-4.96	-	48.06	74.00	25.94
3 492.88	43.04	Peak	H	0.31	-	43.35	74.00	30.65
3 667.71	42.46	Peak	V	1.20	-	43.66	74.00	30.34

- Band edge

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2 390.00	61.87	Peak	H	-1.86	-	60.01	74.00	13.99
2 390.00	55.31	Peak	V	-1.86	-	53.45	74.00	20.55
2 390.00	54.60	Average	H	-1.86	-	52.74	54.00	1.26

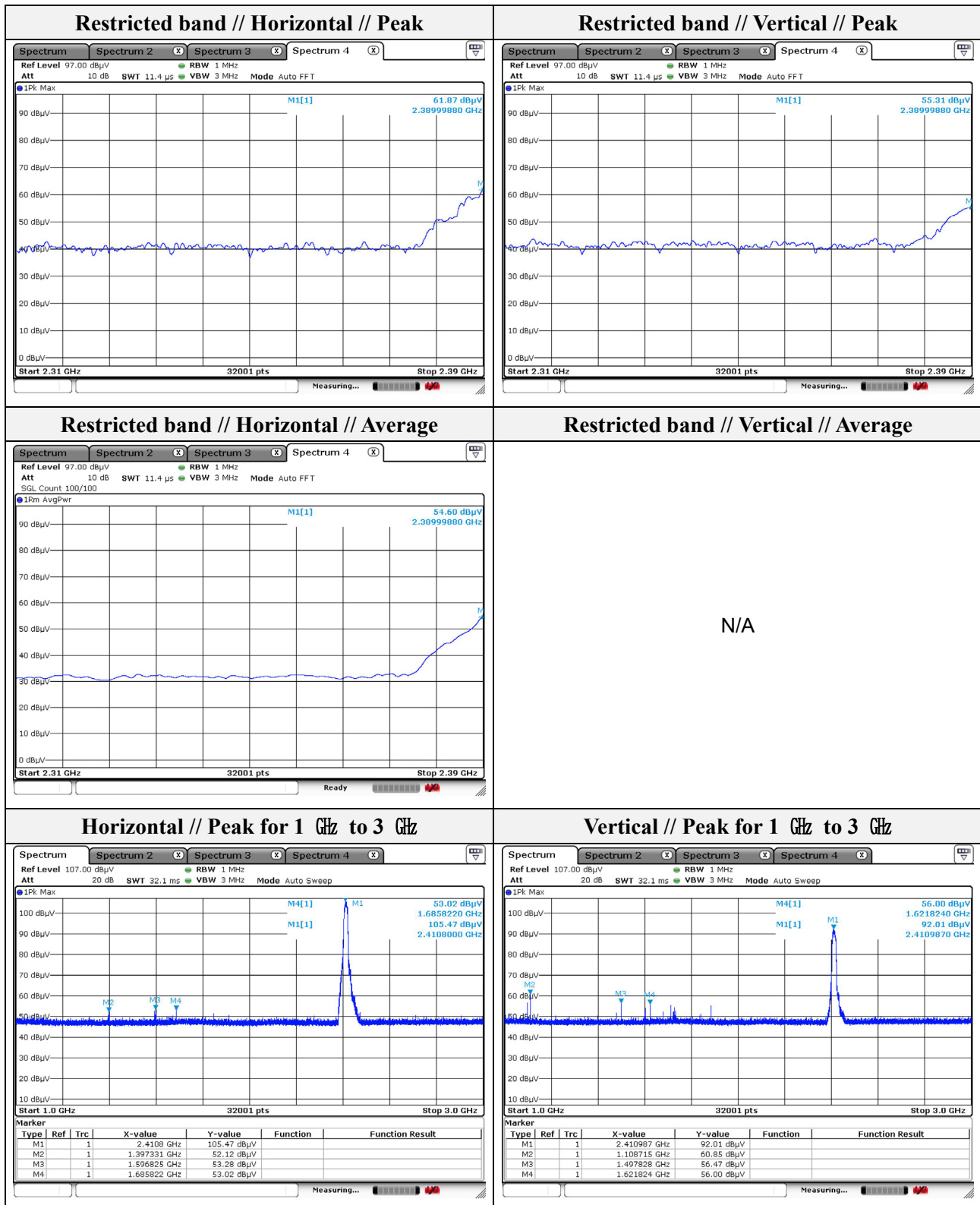
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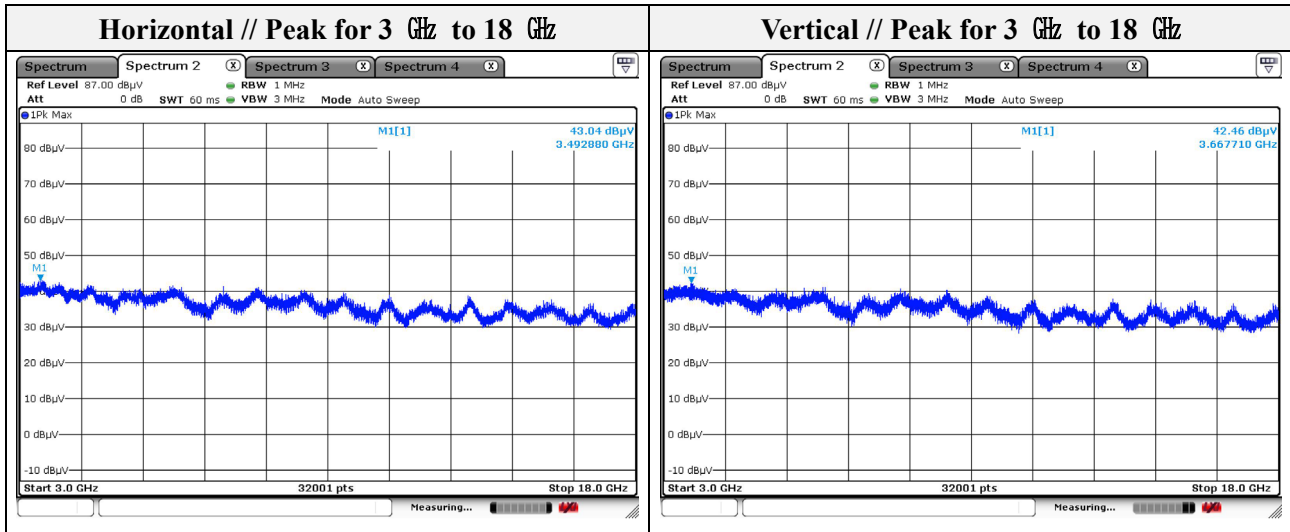
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Note.

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

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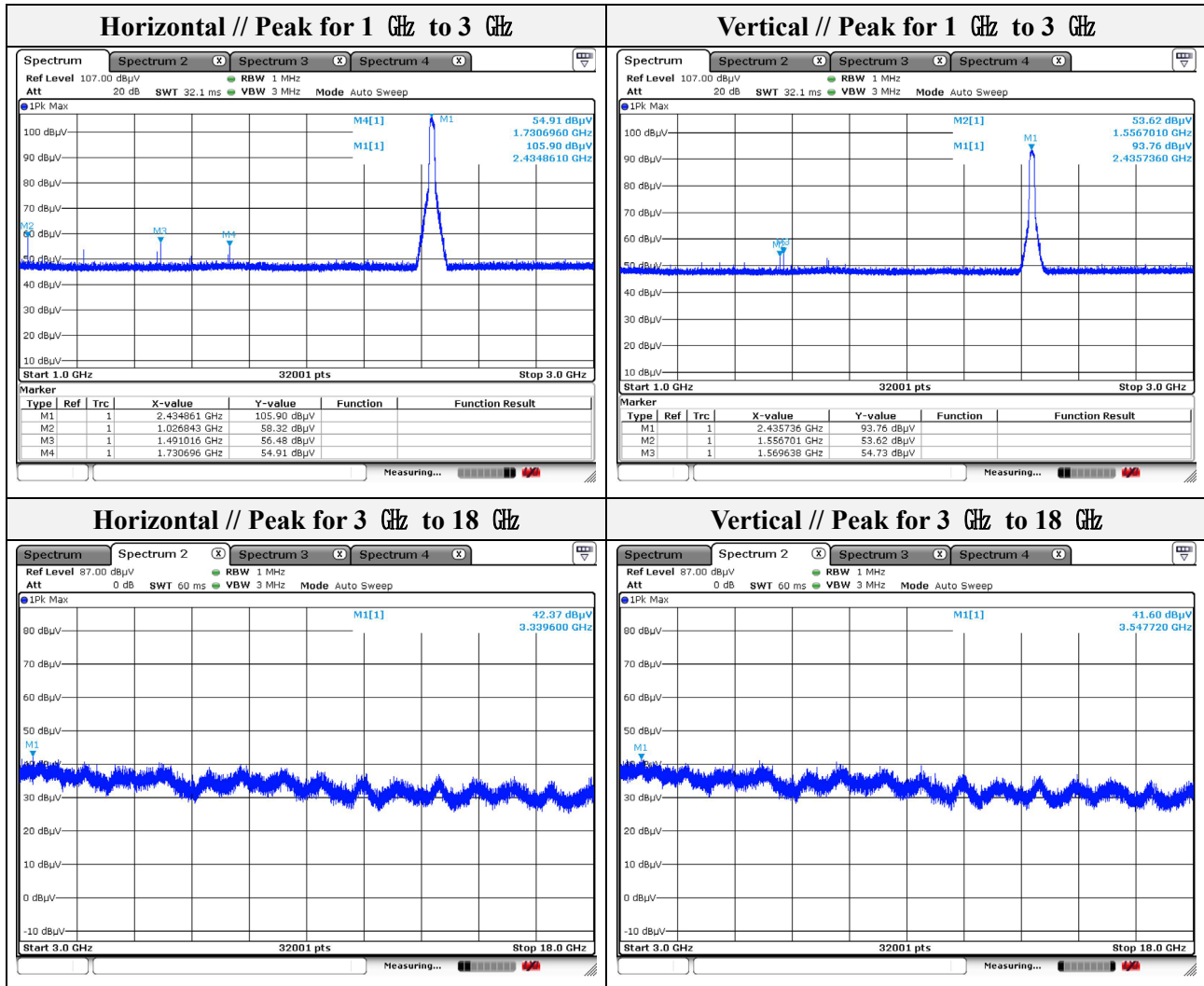
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Mode: 802.11g (6 Mbps)_ANT 2
Channel 06
Distance of measurement: 3 meter

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 026.84	58.32	Peak	H	-9.79	-	48.53	74.00	25.47
1 491.02	56.48	Peak	H	-6.70	-	49.78	74.00	24.22
1 556.70	53.62	Peak	V	-6.31	-	47.31	74.00	26.69
1 569.64	54.73	Peak	V	-6.23	-	48.50	74.00	25.50
1 730.70	54.91	Peak	H	-4.39	-	50.52	74.00	23.48
3 339.60	42.37	Peak	H	0.64	-	43.01	74.00	30.99
3 547.72	41.60	Peak	V	0.48	-	42.08	74.00	31.92

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Note.

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

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Mode: 802.11g (6 Mbps)_ANT 2
Channel 11
Distance of measurement: 3 meter

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 132.78	59.88	Peak	H	-9.09	-	50.79	74.00	23.21
1 219.84	55.91	Peak	V	-8.48	-	47.43	74.00	26.57
1 406.33	53.06	Peak	H	-6.95	-	46.11	74.00	27.89
1 522.52	52.85	Peak	V	-6.53	-	46.32	74.00	27.68
1 597.95	52.14	Peak	V	-6.05	-	46.09	74.00	27.91
1 643.14	55.39	Peak	H	-5.49	-	49.90	74.00	24.10
3 497.56	42.16	Peak	V	0.30	-	42.46	74.00	31.54
3 570.22	42.61	Peak	H	0.56	-	43.17	74.00	30.83

- Band edge

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2 483.50	68.15	Peak	H	-1.66	-	66.49	74.00	7.51
2 483.50	51.50	Average	H	-1.66	-	49.84	54.00	4.16
2 483.50	48.12	Average	V	-1.66	-	46.46	54.00	7.54
2 485.32	60.36	Peak	V	-1.66	-	58.70	74.00	15.30

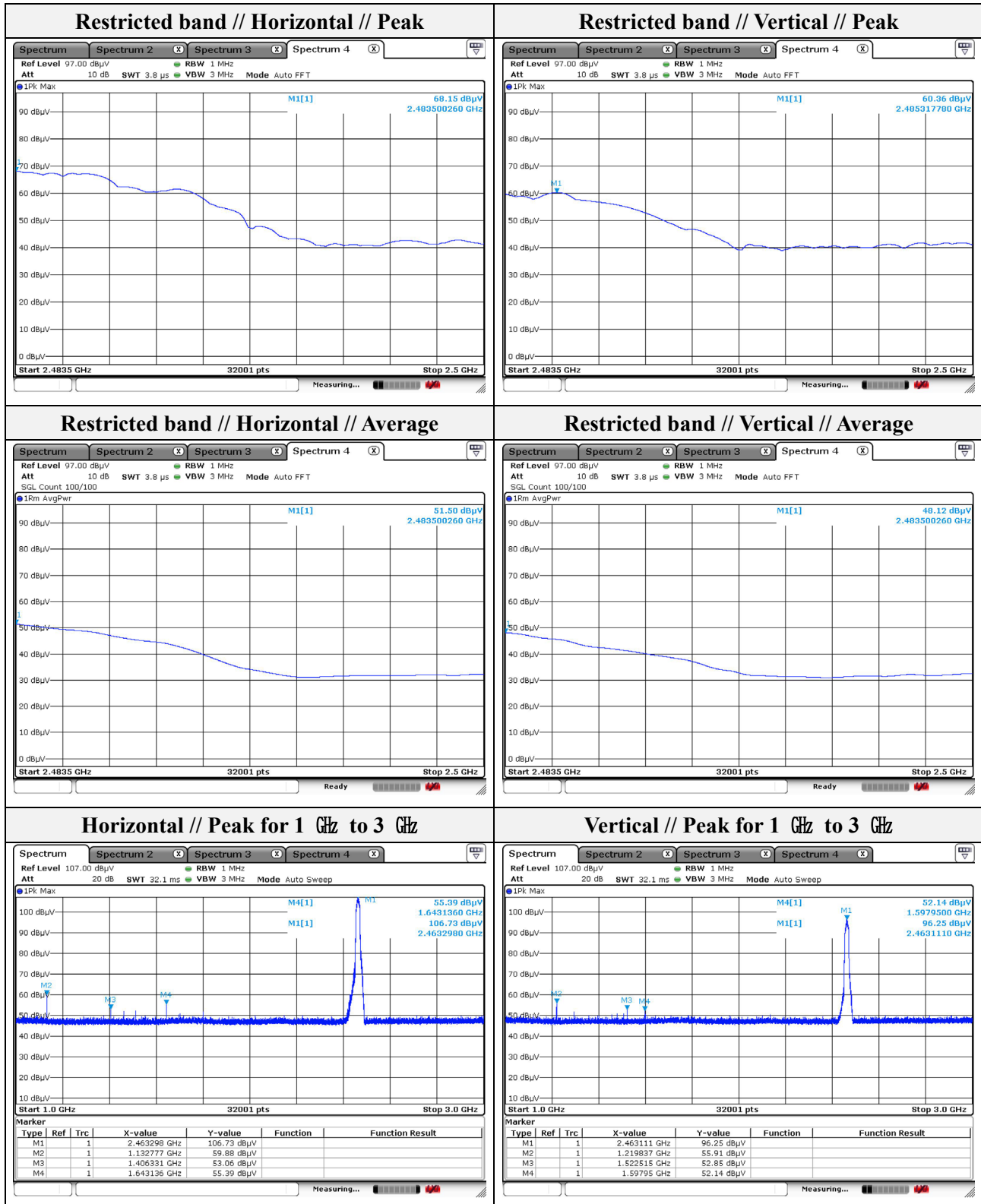
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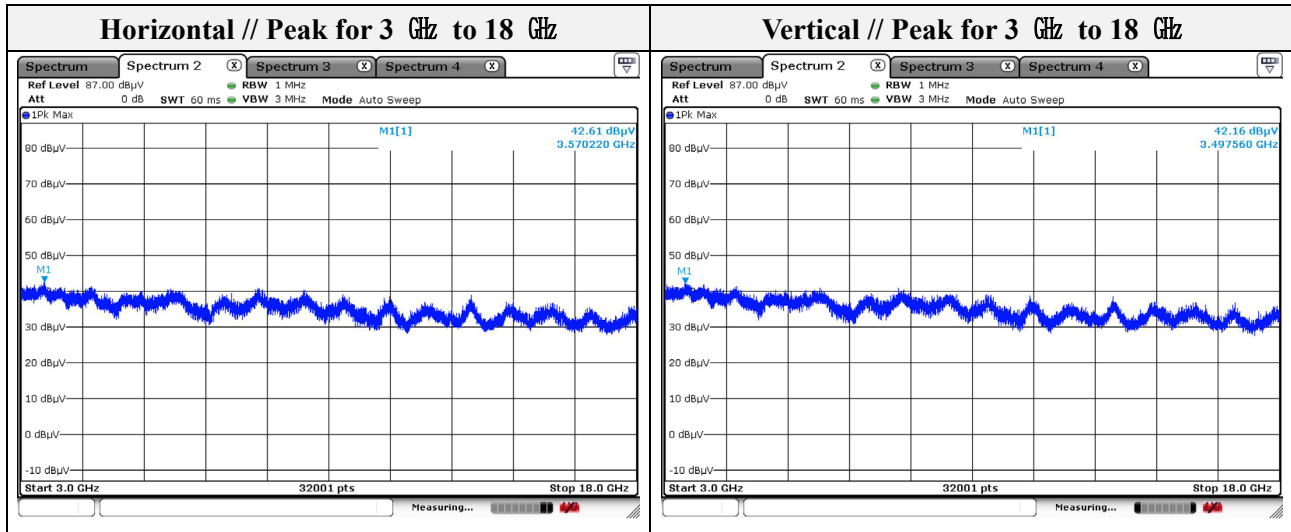
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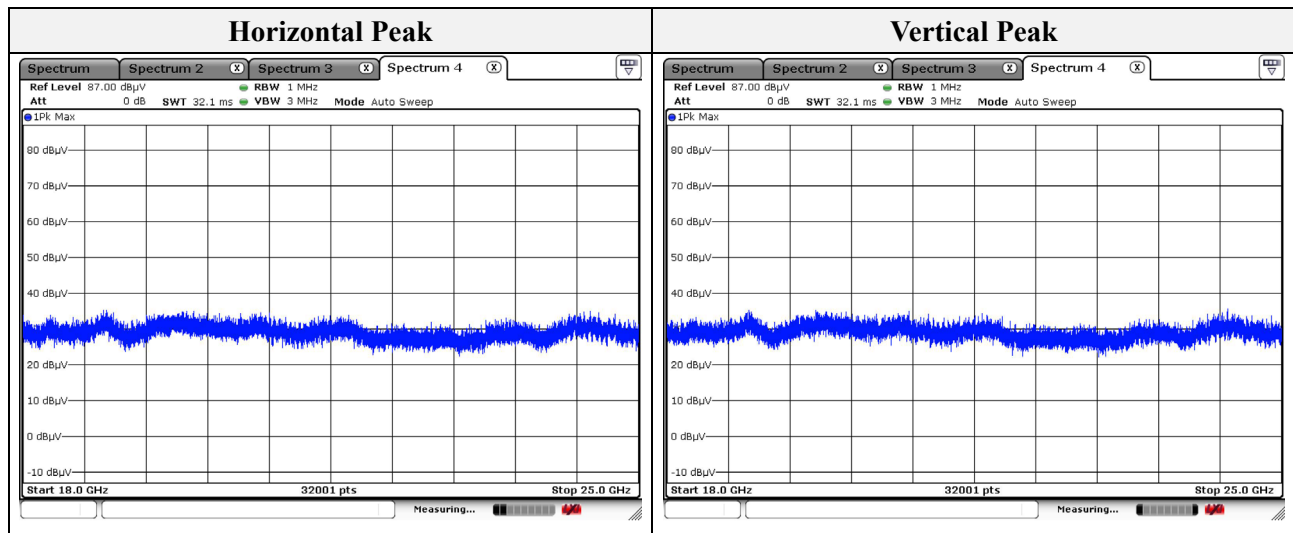
Note.

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Test results (18 GHz to 26 GHz) – Worst case

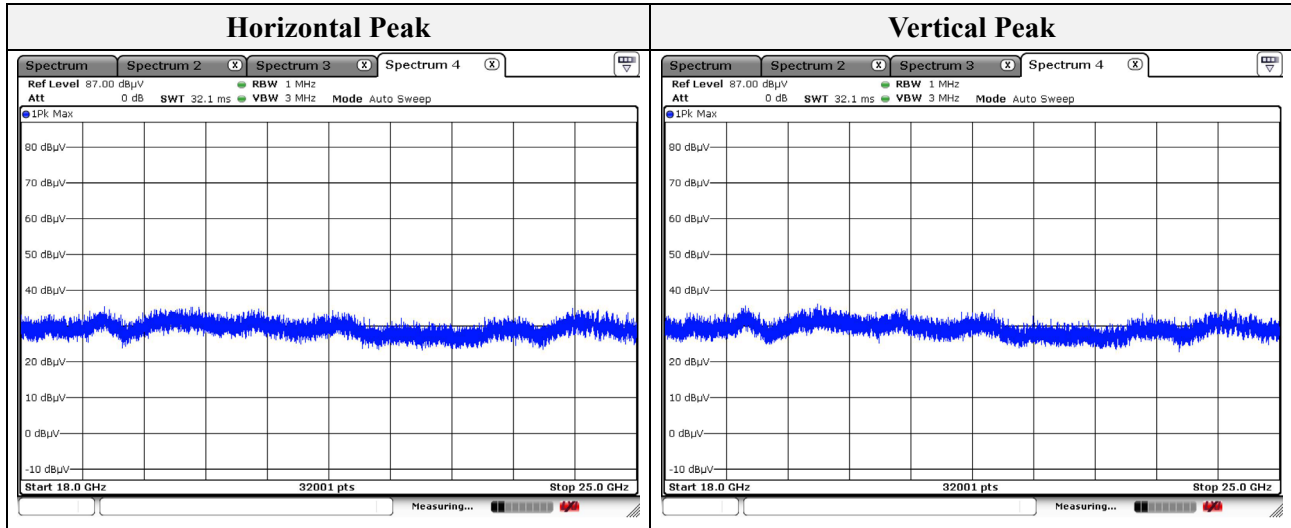
Mode: 802.11g (6 Mbps)_ANT 0
Channel: 06
Distance of easurement : 3 meter



Note.

No spurious emission were detected above 18 GHz.

Mode: 802.11g (6 Mbps)_ANT 1
Channel: 06
Distance of easurement : 3 meter



Note.

No spurious emission were detected above 18 GHz.

3.3. AC conducted emissions

Limit

According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

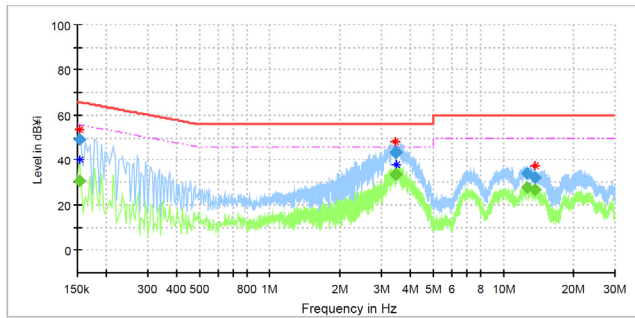
Frequency of Emission (MHz)	Conducted limit (dB μ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Test results

Mode: 802.11g_ANT 1

Channel: 06(Worst case)

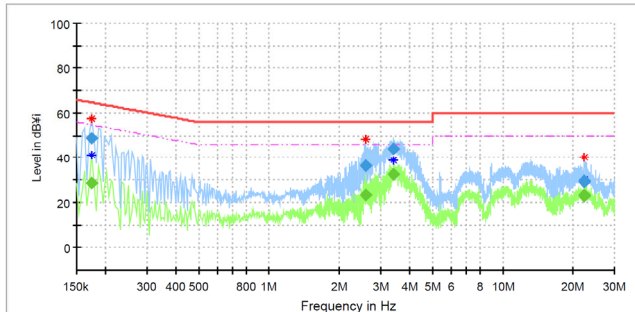
Hot Line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.154000	---	30.38	55.78	25.40	1000.0	9,000	L1	19.6
0.154000	49.11	---	65.78	16.67	1000.0	9,000	L1	19.6
3.458000	---	33.42	46.00	12.58	1000.0	9,000	L1	20.2
3.458000	43.33	---	56.00	12.67	1000.0	9,000	L1	20.2
3.470000	---	33.44	46.00	12.56	1000.0	9,000	L1	20.2
3.470000	43.36	---	56.00	12.64	1000.0	9,000	L1	20.2
12.618000	---	27.86	50.00	22.14	1000.0	9,000	L1	20.5
12.618000	33.73	---	60.00	26.27	1000.0	9,000	L1	20.5
13.662000	---	26.63	50.00	23.37	1000.0	9,000	L1	20.5
13.662000	32.18	---	60.00	27.82	1000.0	9,000	L1	20.5

Neutral Line



Final Result

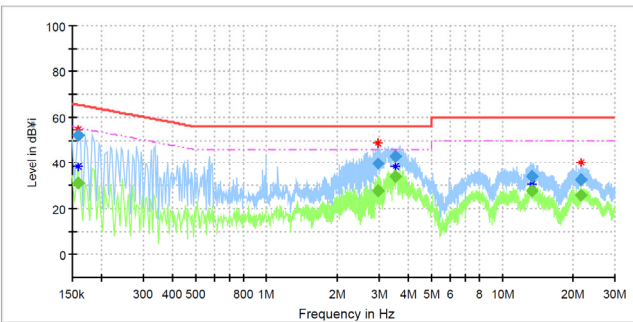
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.174000	---	28.70	54.77	26.07	1000.0	9,000	N	19.5
0.174000	48.74	---	64.77	16.03	1000.0	9,000	N	19.5
2.598000	---	23.23	46.00	22.77	1000.0	9,000	N	20.4
2.598000	36.10	---	56.00	19.90	1000.0	9,000	N	20.4
3.422000	---	32.68	46.00	13.32	1000.0	9,000	N	20.2
3.422000	43.85	---	56.00	12.15	1000.0	9,000	N	20.2
22.406000	---	23.35	50.00	26.65	1000.0	9,000	N	21.0
22.406000	29.56	---	60.00	30.44	1000.0	9,000	N	21.0
22.410000	---	22.87	50.00	27.13	1000.0	9,000	N	21.0
22.410000	29.01	---	60.00	30.99	1000.0	9,000	N	21.0

Test results

Mode: 802.11g_ANT 2

Channel: 06(Worst case)

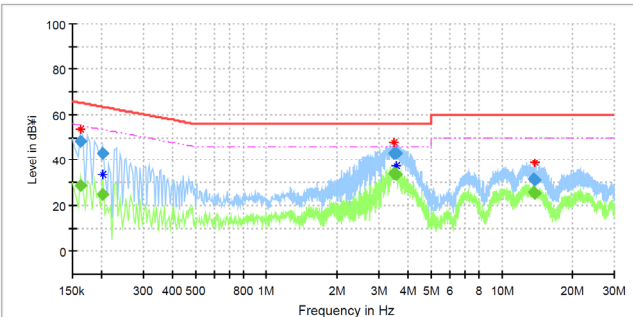
Hot Line



Final Result

Frequency (MHz)	QuasiPeak (dBm V)	CAverage (dBm V)	Limit (dBm V)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.158000	---	31.22	55.57	24.35	1000.0	9.000	L1	19.6
0.158000	52.21	---	65.57	13.36	1000.0	9.000	L1	19.6
2.954000	---	27.59	46.00	18.41	1000.0	9.000	L1	20.4
2.954000	39.88	---	56.00	16.12	1000.0	9.000	L1	20.4
3.538000	---	33.82	46.00	12.18	1000.0	9.000	L1	20.2
3.538000	43.27	---	56.00	12.73	1000.0	9.000	L1	20.2
13.374000	---	27.58	50.00	22.42	1000.0	9.000	L1	20.5
13.374000	33.91	---	60.00	26.09	1000.0	9.000	L1	20.5
21.578000	---	25.69	50.00	24.31	1000.0	9.000	L1	20.9
21.578000	32.59	---	60.00	27.41	1000.0	9.000	L1	20.9

Neutral Line



Final Result

Frequency (MHz)	QuasiPeak (dBm V)	CAverage (dBm V)	Limit (dBm V)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.162000	---	28.75	55.36	26.61	1000.0	9.000	N	19.5
0.162000	48.51	---	65.36	16.85	1000.0	9.000	N	19.5
0.202000	---	24.65	53.53	28.88	1000.0	9.000	N	19.6
0.202000	42.85	---	63.53	20.68	1000.0	9.000	N	19.6
3.470000	---	33.70	46.00	12.30	1000.0	9.000	N	20.2
3.470000	43.06	---	56.00	12.94	1000.0	9.000	N	20.2
3.582000	---	33.43	46.00	12.57	1000.0	9.000	N	20.2
3.582000	43.17	---	56.00	12.83	1000.0	9.000	N	20.2
13.726000	---	25.62	50.00	24.38	1000.0	9.000	N	20.5
13.726000	31.52	---	60.00	28.48	1000.0	9.000	N	20.5
13.786000	---	25.28	50.00	24.72	1000.0	9.000	N	20.5
13.786000	31.12	---	60.00	28.88	1000.0	9.000	N	20.5

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Appendix A. Measurement equipment

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
Spectrum Analyzer	R&S	FSV40	101725	1 year	2023.06.16
Spectrum Analyzer	R&S	FSV40N	102194	1 year	2023.08.11
ATTENUATOR	KEYSIGHT	8493C	82506	1 year	2024.01.17
Power Meter	Anritsu	ML2495A	1438001	1 year	2024.01.13
Pulse Power Sensor	Anritsu	MA2411B	1339205	1 year	2024.01.13
DC POWER SUPPLY	AGILENT	6632B	MY43004130	1 year	2023.06.17
EMI Test Receiver	R&S	ESU26	100552	1 year	2023.08.01
LISN	R&S	ENV216	101787	1 year	2023.11.10
LISN	R&S	ESH2-Z5	100450	1 year	2023.11.10
EMI TEST RECEIVER	R&S	ERS3	101783	1 year	2023.11.11
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2023.04.27
SIGNAL GENERATOR	Anritsu	68369B	002118	1 year	2024.01.14
BAND REJECT FILTER	MICRO-TRONICS	BRM50702	G272	1 year	2024.01.12
Attenuator	HUBER+SUHNER	6806.17.A	-	1 year	2023.04.01
Loop Antenna	Schwarzbeck	FMZB1513	1513-257	2 years	2023.03.18
Horn Antenna	A.H	SAS-571	414	1 year	2024.01.16
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170550	1 year	2024.01.16
TRILOG- BROADBAND ANTENNA	VULB9163	Schwarzbeck	714	2 years	2024.04.19
Amplifier	SONOMA INSTRUMENT	310N	186549	1 year	2023.04.21
PREAMPLIFIER	HP	8449B	3008A00538	1 year	2023.06.02

Peripheral devices

Device	Manufacturer	Model No.	Serial No.
Notebook computer	LG Electronics Inc.,	LG15N54	504NZJV027828
Jig board	-	-	-

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