



3.6. AC conducted emissions

Limit

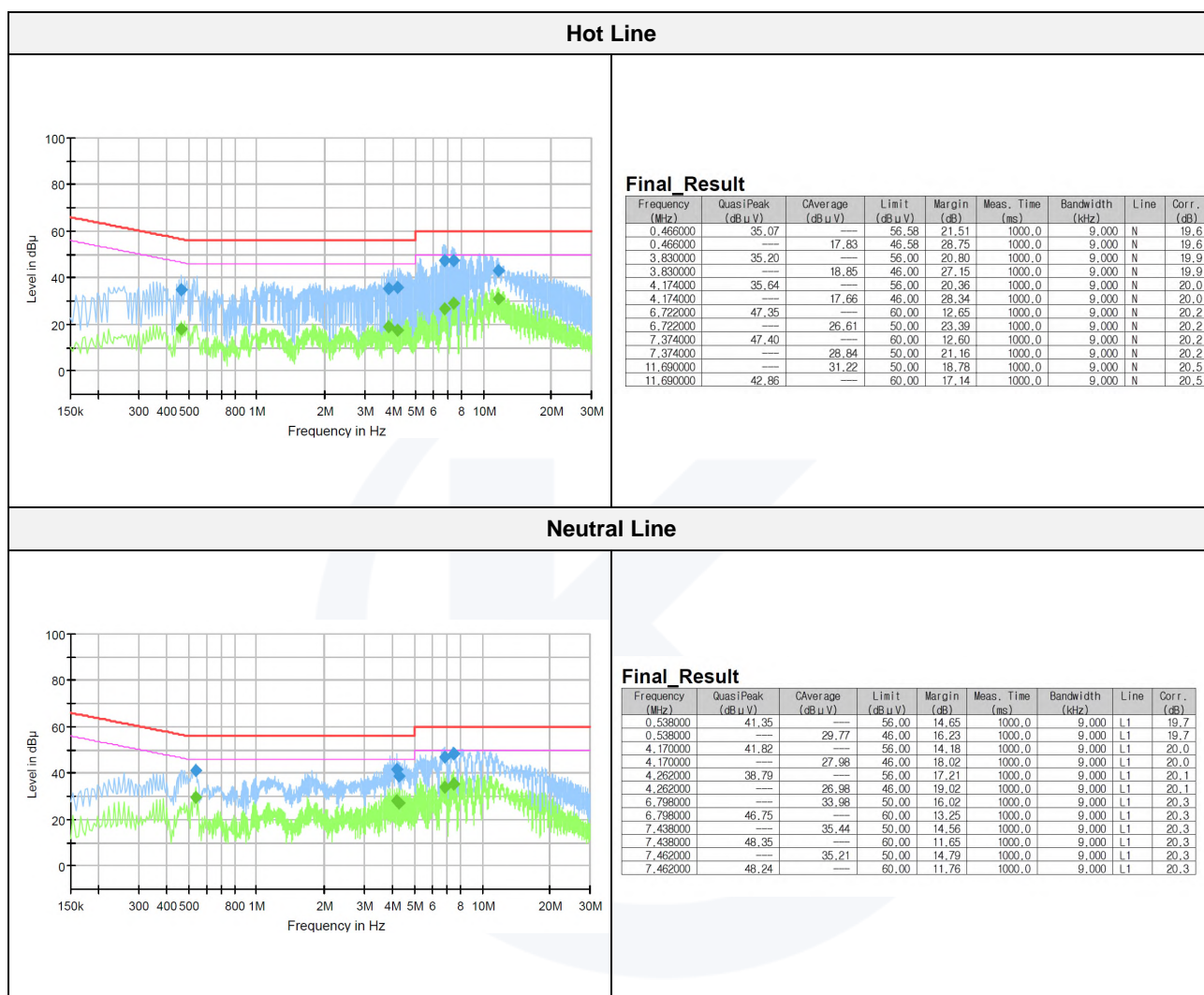
According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50uH/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 (dBμV)	
	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: LE 2 Mbps (Worst Case)

Channel: 20 (Worst Case)

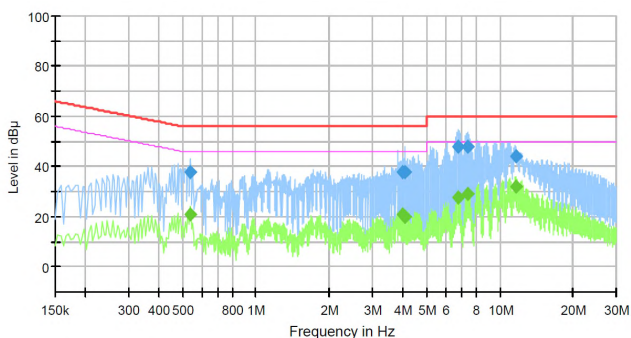




Mode: 802.11ax_HE20 (MCS0) (Worst Case)

Channel: 6 (Worst Case)

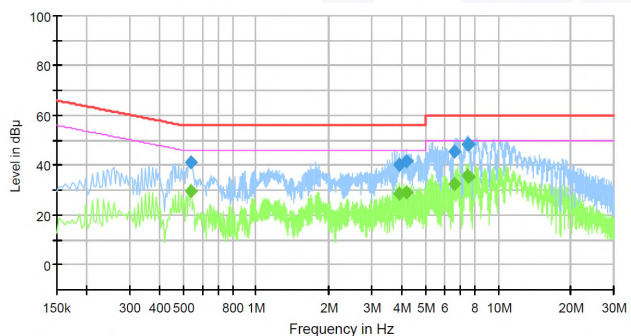
Hot Line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.538000	37.64	---	56.00	18.36	1000.0	9.000	N	19.6
0.538000	---	20.81	46.00	25.19	1000.0	9.000	N	19.6
4.006000	37.60	---	56.00	18.40	1000.0	9.000	N	19.9
4.006000	---	20.69	46.00	25.31	1000.0	9.000	N	19.9
4.086000	37.56	---	56.00	18.44	1000.0	9.000	N	19.9
4.086000	---	20.08	46.00	25.92	1000.0	9.000	N	19.9
6.714000	47.74	---	60.00	12.26	1000.0	9.000	N	20.2
6.714000	---	27.80	50.00	22.20	1000.0	9.000	N	20.2
7.414000	47.67	---	60.00	12.33	1000.0	9.000	N	20.2
7.414000	---	29.04	50.00	20.96	1000.0	9.000	N	20.2
11.650000	---	32.14	50.00	17.86	1000.0	9.000	N	20.4
11.650000	43.81	---	60.00	16.19	1000.0	9.000	N	20.4

Neutral Line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.538000	41.27	---	56.00	14.73	1000.0	9.000	L1	19.7
0.538000	---	29.44	46.00	16.56	1000.0	9.000	L1	19.7
3.922000	40.35	---	56.00	15.65	1000.0	9.000	L1	20.0
3.922000	---	28.73	46.00	17.27	1000.0	9.000	L1	20.0
4.178000	41.66	---	56.00	14.34	1000.0	9.000	L1	20.0
4.178000	---	29.07	46.00	16.93	1000.0	9.000	L1	20.0
6.610000	---	32.49	50.00	17.51	1000.0	9.000	L1	20.2
6.610000	45.56	---	60.00	14.44	1000.0	9.000	L1	20.2
7.434000	---	35.81	50.00	14.19	1000.0	9.000	L1	20.3
7.434000	48.54	---	60.00	11.46	1000.0	9.000	L1	20.3
7.518000	---	35.34	50.00	14.66	1000.0	9.000	L1	20.3
7.518000	48.14	---	60.00	11.86	1000.0	9.000	L1	20.3



3.7. Antenna Requirement

According to 15.207(a), An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

**Appendix A. Measurement equipment**

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
Spectrum analyzer	R&S	FSV40	101725	1 year	2025.06.12
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2025.04.15
SIGNAL GENERATOR	Anritsu	68369B	002118	1 year	2025.04.15
Power Meter	Anritsu	ML2495A	1438001	1 year	2025.04.15
Pulse Power Sensor	Anritsu	MA2411B	1339205	1 year	2025.04.15
Attenuator	Mini-Circuits	BW-S20-2W263A+	Y1	1 year	2026.02.10
BAND REJECT FILTER	MICRO-TRONICS	BRM50702	G272	1 year	2026.01.08
LOOP ANTENNA	TESEQ	HLA6121	66547	2 years	2026.01.22
TRILOG-BROADBAND ANTENNA	Schwarzbeck	VULB 9163	714	2 years	2026.04.19
Attenuator	HUBER+SHHNER	6806.17.A	NONE	1 year	2026.02.13
HORN ANTENNA	A.H.	SAS-571	414	1 year	2026.01.13
ATTENUATOR	HP	8491B	23094	1 year	2026.02.13
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170550	1 year	2026.01.13
Amplifier	SONOMA INSTRUMENT	310N	401123	1 year	2026.02.13
PREAMPLIFIER	HP	8449B	3008A00538	1 year	2025.04.30
BROADBAND AMPLIFIER	SCHWARZBECK	BBV9721	PS9721-003	1 year	2026.01.09
DC POWER SUPPLY	SORENSEN	DCS40-75E	1408A02745	1 year	2026.01.08
EMI Test Receiver	R & S	ESR7	101190	1 year	2025.07.29
EMI Test Receiver	R&S	ESR3	101783	1 year	2025.11.06
PULSE LIMITER	R&S	ESH2-Z2	101915	1 year	2025.11.06
LISN	R&S	ENV216	101786	1 year	2026.01.09
Cable	-	-	#5	1 year	2025.11.01
Cable (SR #6)	RG 400	-	-	0.5 year	2025.07.25
Cable (SAC #5)	SUCOFLEX106	HUBER_SUHNER	-	0.5 year	2025.07.25
	SUCOFLEX106	HUBER_SUHNER	-		
	LH21D/2xSMA	OSI Cable	-		
Cable (SAC #6)	TCLH21D-SMSM-2.5M 0222	OSI Cable	-	0.5 year	2025.07.25
	TCLH21D-NMNM-10.0M 0222	OSI Cable	-		
	TCLH21D-SMSM-7.0M 0222	OSI Cable	-		

* Statement of Traceability: KES Co., Ltd. attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Peripheral devices

Device	Manufacturer	Model No.	Serial No.
Notebook computer	LG Electronics Inc.,	LGS53	306QCZP560949
Test Jig Board	N/A	N/A	N/A

The End.