

Mode:

802.11b(Worst Case)_ DC 24V

Distance of measurement: 3 meter Channel: 01

3 meter 01

Spurious

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB _µ N/m)	Limit (dBµN/m)	Margin (dB)
1 056.40	45.80	Peak	Н	-9.21	-	36.59	74.00	37.41
1 328.50	46.42	Peak	V	-7.34	-	39.08	74.00	34.92

Band edge

- Danu eu	ye							
Frequency (畑)	Level (dBµV)	Detect mode	Ant. Pol. CF (H/V) (dB)		DCF (dB)	Field strength (dBµV/m)	Limit (dBµ∛/m)	Margin (dB)
2 381.45	43.00	Peak	V	-0.74	-	42.26	74.00	31.74
2 390.00	46.09	Peak	Н	-0.73	-	45.36	74.00	28.64

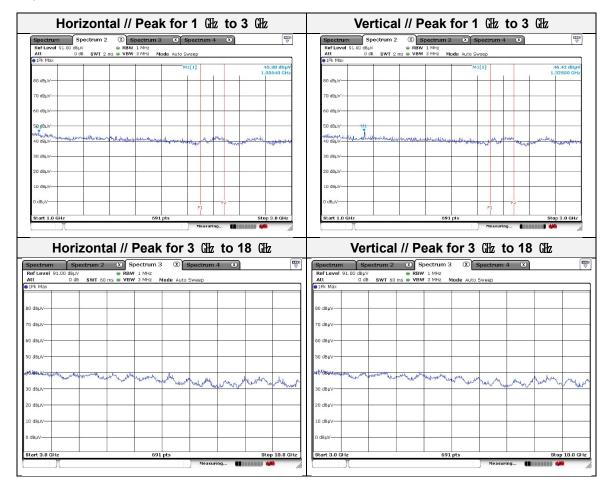
Re	stricted	d band //	Horizont	al // Peak		F	Restrict	ed ban	d // Ve	rtica	I // P	eak	
Spectrum Ref Level 107. Att 1Pk Max		 Spectrum 3 RBW 1 MHz 5.2 µs VBW 3 MHz 	_	4 8				 Spectru RBW 1 5.2 μs VBW 3 	MHz	Spectrum	4 (8)		
100 dBµV		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M2[1] M1[1]	2.390	.09 dBµĶ	48µV			, , , , , , , , , , , , , , , , , , ,		M2 M2	2.31	33.00 dBµV 81450 GHz 11.93 dBµV 11920 GHz
30 dBµV 20 dBµV 10 dBµV <mark>F1 Stort 2.3 GHz</mark>		691		F2 Stop 2.4	30 d 20 d 10 d 112 GHz Stor	ВµV			691 pts	Measur			2.412 GHz

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Note.

1. No spurious emission were detected above 3 $\,\mathrm{GHz}$.

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

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Mode:

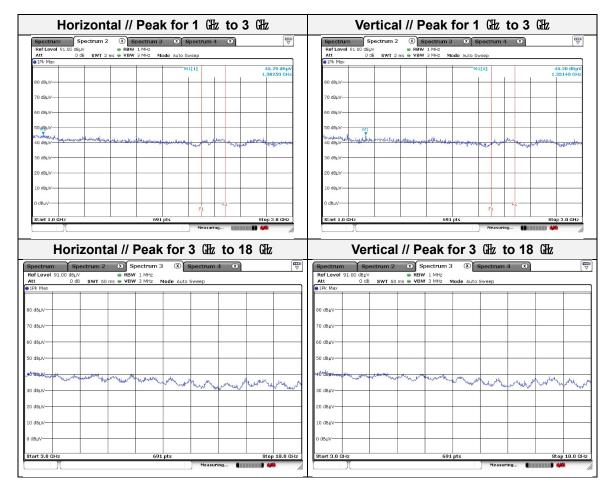
802.11b(Worst Case)_ DC 24V

Distance of measurement: 3 meter Channel: 06

3 meter 06

Spurious

- Spurious Frequency (Mz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB _# N/m)	Limit (dBµN/m)	Margin (dB)
1 082.50	45.29	Peak	Н	-9.03	-	36.26	74.00	37.74
1 331.40	45.20	Peak	V	-7.32	-	37.88	74.00	36.12



Note.

1. No spurious emission were detected above 3 $\,{\rm Ghz}.$

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

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Mode:	802.11b(Worst Case)_ DC 24V
Distance of measurement:	3 meter
Channel:	11

Spurious

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB _µ N/m)	Limit (dBµN/m)	Margin (dB)
1 001.40	47.39	Peak	Н	-9.59	-	37.80	74.00	36.20
1 328.50	46.76	Peak	V	-7.34	-	39.42	74.00	34.58

Band edge

- Danu eu	ye							
Frequency (Mb)	Level (dBµN)	Detect mode			DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 483.50	47.05	Peak	Н	-0.57	-	46.48	74.00	27.52
2 489.40	43.75	Peak	V	-0.56	-	43.19	74.00	30.81

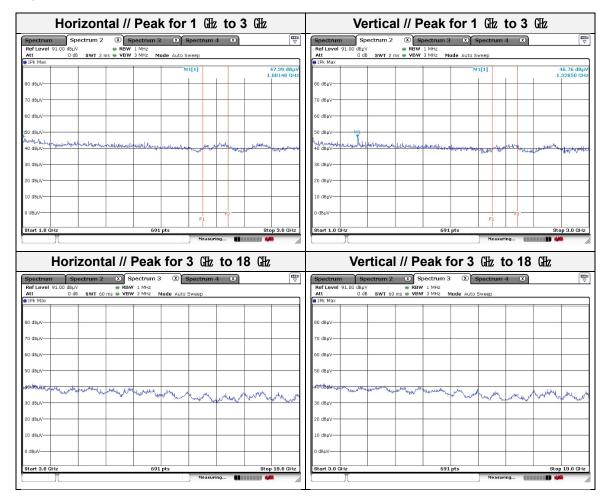
Restric	ted band // Hor	zontal // Po	eak	I	Restrict	ed ban	d // Ve	rtical	// Pea	ak
	m 2 ⑧ Spectrum 3 ⑧ ■ RBW 1 MH2 SWT 7.5 µs ■ VBW 3 MH2 Mode Au	o FFT		Spectrum Ref Level 10 Att		 Spectru RBW 11 5 µs VBW 31 	ИНZ	Spectrum 4	®	
IPK Max Io0 dBpv 90 dBµv 90 dBµv 90 dBµv 00 dBµv			47.05 dBpV 2.4835000 GHz 103.10 dBy 2.4631460 GHz	IPk Max 100 dbµV 1 96 dbµV 96 dbµV 70 dbµV 60 dbµV 60 dbµV 40 dbµV 20 dbµV 20 dbµV					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	43.75 dBµV 2.4994040 GH2 92.23 dBµV 2.4620350 GH2
10 dBµV	F1 691.pts	F2	Stop 2.51 GHz	10 dBµV	z	FJ	691 pts	Measuring	F2	Stop 2.51 GHz

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Note.

1. No spurious emission were detected above 3 $\,{\rm Ghz}.$

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

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Test results (18 🕀 to 30 🕀)
Mode:	802.11b(Worst Case)_ DC 24V
Distance of measurement:	3 meter
Channel:	06 (Worst case)

	Horizontal Peak						Vertical Peak								
			Spectrum 4 (x		Spectrun		ectrum 2		ectrum 3	× *	Spectrum 4	+ ®		
Ref Level 91.00 dBµ Att 0 d	IV ● RB 18 SWT 48 ms ● VB	WIMHZ WIMHZ Mode Au	to Sween			Ref Level Att	91.00 dBµV 0 dB	SWT 48	RBW ms VBW		Inde Auto	Sween			
1Pk Max						1Pk Max								,,	
80 dBµV						80 dBµV									
70 dBµV						70 dBμV-									
60 dBuV						60 dBµV									
o uspv						oo uspo									
50 dBµV						50 dBµV									
40 dBµV	much in the	June June		and contents		40 dBµV-	use Maria	the au	1000	1	Sec. 10				
30 dBuy	and wanter and define	New Mary Mary	mon whow my	Here Have And here	holyphilons	30 dBµV-	Martin	harton	n would	do Wiene	manula malli	musica	monorphan	alassin hyperty	book And
20 dBµV						20 dBµV									
10 dBuV-						10 dBuV-									
to doby						TO OBHA									
0 dBµV						0 dBµV									
Start 18.0 GHz		691 pts			30.0 GHz	Start 18.0	GHz			691	pts			Stop	30.0 GHz
J			Measuring	(IIIIIII) 🗰	🛎 ///							Measuri	ng 💷		

Note.

No spurious emission were detected above 18 $\,{\rm GHz}.$

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3.3. 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.

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Appendix A. Meas	urement equipm	ent	1		r
Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
SPECTRUM ANALYZER	R&S	FSV3044	101272	1 year	2024.03.16
SPECTRUM ANALYZER	R&S	FSV40	101725	1 year	2024.06.15
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2024.04.19
SIGNAL GENERATOR	Anritsu	68369B	002118	1 year	2024.05.12
Power Meter	Anritsu	ML2495A	2010001	1 year	2024.04.19
Pulse Power Sensor	Anritsu	MA2411B	1911111	1 year	2024.04.18
ATTENUATOR	Mini-Circuits	BW-S10-2W263+	1	1 year	2024.01.13
EMI TEST RECEIVER	R&S	ESU26	100517	1 year	2024.07.31
ACTIVE LOOP ANTENNA	Schwarzbeck	HFH2-Z2E	100975	2 years	2025.02.15
BILOG ANTENNA	Schwarzbeck	VULB 9163	714	2 years	2024.04.19
DC POWER SUPPLY	SORENSEN	DCS40-75E	1408A02745	1 year	2024.01.12
Attenuator	HUBER+SHHNER	6806.17.A	NONE	1 year	2024.03.21
Horn Antenna	A.H.	SAS-571	414	1 year	2024.01.16
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170550	1 year	2024.01.16
Amplifier	SONOMA INSTRUMENT	310N	186549	1 year	2024.03.21
PREAMPLIFIER	HP	8449B	3008A00538	1 year	2024.05.31
BROADBAND AMPLIFIER	SCHWARZBECK	BBV9721	PS9721-003	1 year	2024.01.16

Appendix A. Measurement equipment

* 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	Device Manufacturer		Serial No.
Notebook computer	LG Electronics Inc.,	LGS53	306QCZP560949

The end of test report

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