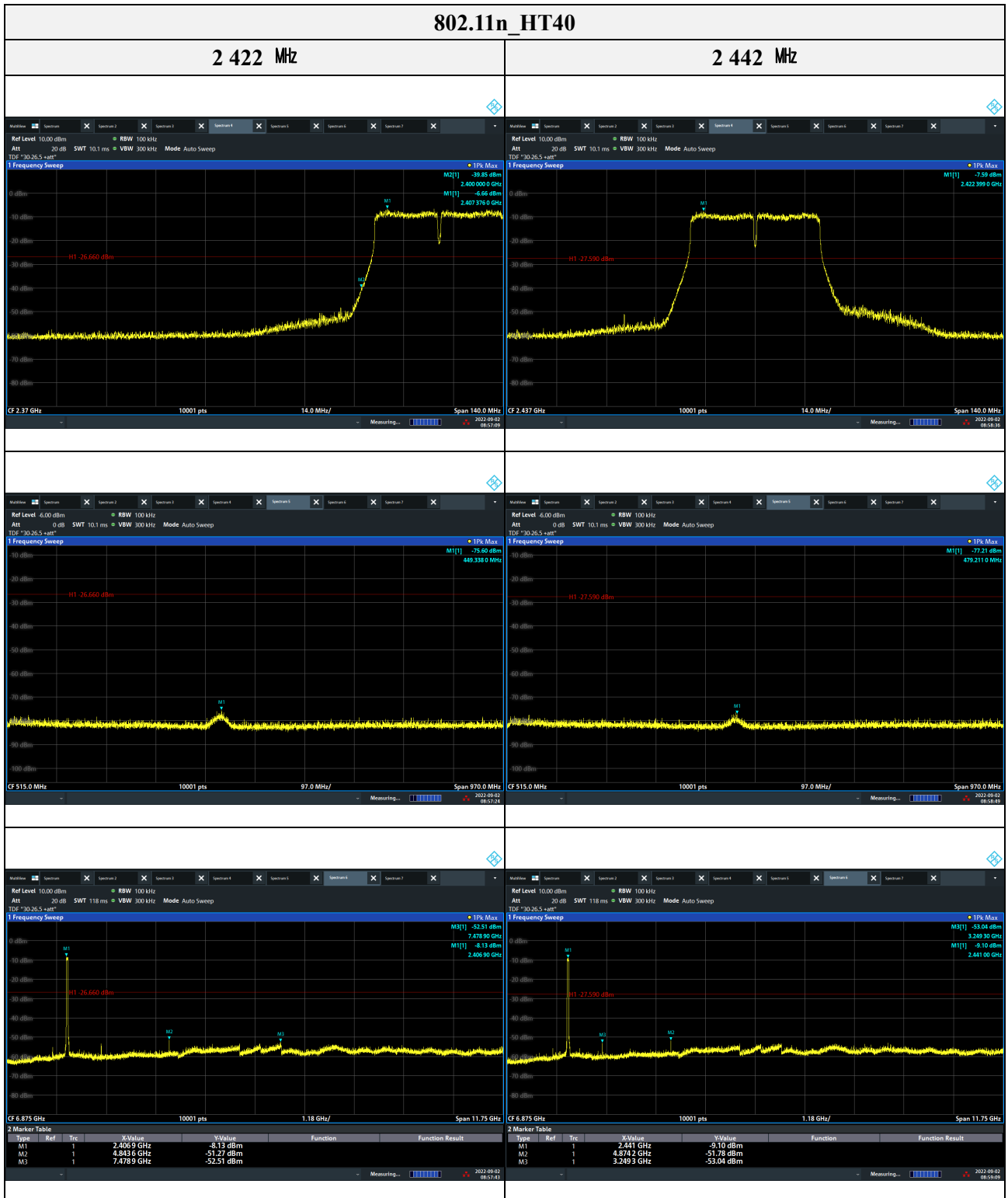
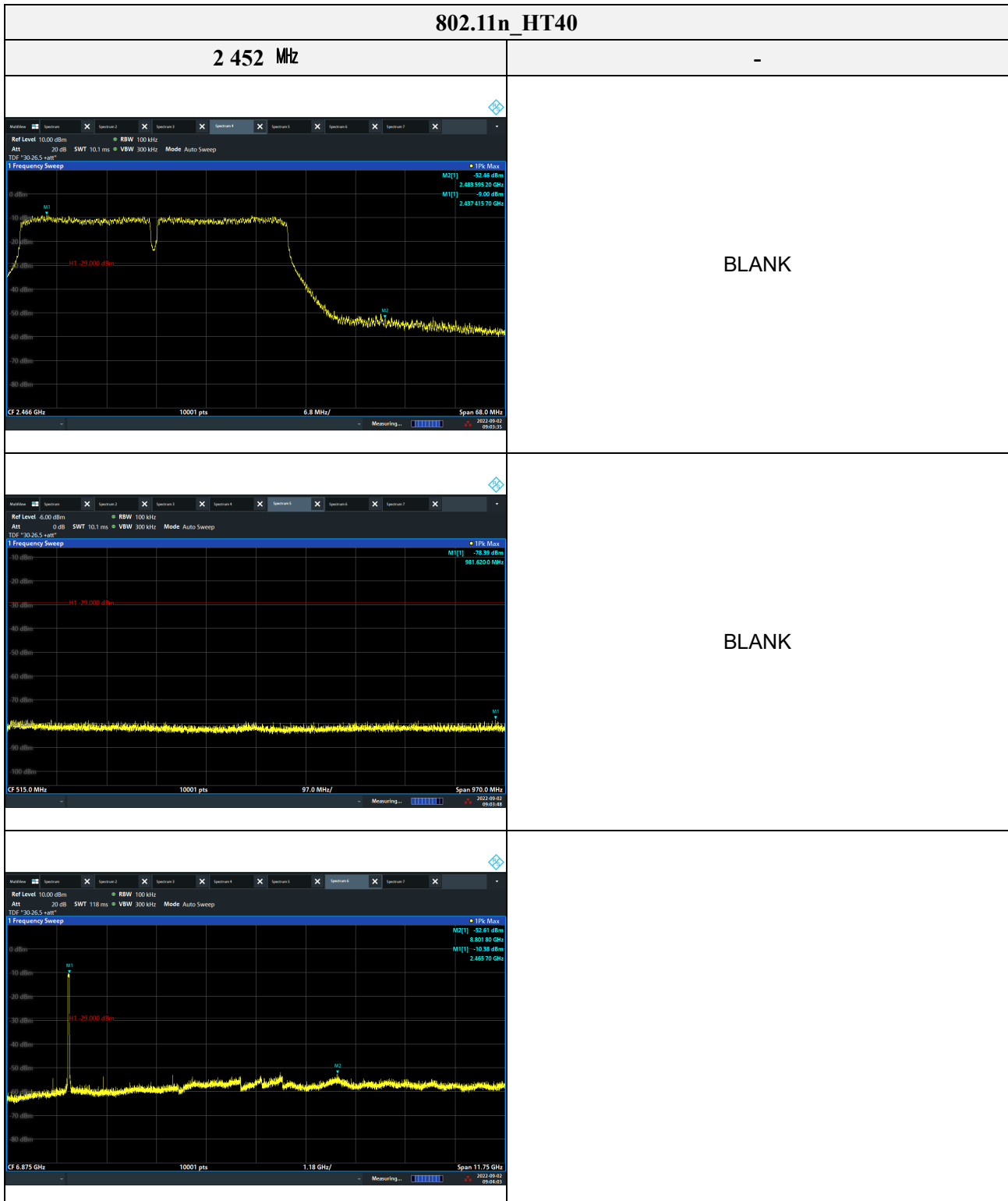




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3.7. AC conducted emissions

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)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

According to RSS-Gen 8.8, For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

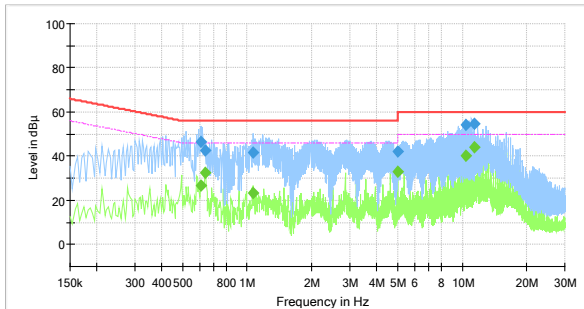
Frequency of Emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Test results

SISO ANT1

Mode: 802.11b
 Distance of measurement: 3 meter
 Channel: 01 (Worst Case)

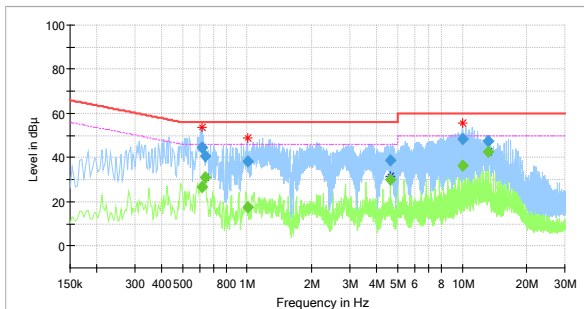
Hot Line



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.606000	46.21	---	56.00	9.79	1000.0	9.000	L1	20.0
0.606000	---	26.51	46.00	19.49	1000.0	9.000	L1	20.0
0.638000	42.54	---	56.00	13.46	1000.0	9.000	L1	20.0
0.638000	---	32.26	46.00	13.74	1000.0	9.000	L1	20.0
1.070000	41.47	---	56.00	14.53	1000.0	9.000	L1	20.2
1.070000	---	23.20	46.00	22.80	1000.0	9.000	L1	20.2
4.998000	41.90	---	56.00	14.10	1000.0	9.000	L1	19.9
4.998000	---	33.04	46.00	12.96	1000.0	9.000	L1	19.9
10.358000	53.99	---	60.00	6.01	1000.0	9.000	L1	20.4
10.358000	---	40.11	50.00	9.89	1000.0	9.000	L1	20.4
11.426000	---	43.85	50.00	6.15	1000.0	9.000	L1	20.4
11.426000	54.88	---	60.00	5.12	1000.0	9.000	L1	20.4

Neutral Line



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.614000	---	26.48	46.00	19.52	1000.0	9.000	N	19.9
0.614000	44.72	---	56.00	11.28	1000.0	9.000	N	19.9
0.638000	---	31.05	46.00	14.95	1000.0	9.000	N	20.0
0.638000	40.51	---	56.00	15.49	1000.0	9.000	N	20.0
1.002000	---	17.49	46.00	28.51	1000.0	9.000	N	20.1
1.002000	38.24	---	56.00	17.76	1000.0	9.000	N	20.1
4.642000	---	29.93	46.00	16.07	1000.0	9.000	N	19.9
4.642000	38.74	---	56.00	17.26	1000.0	9.000	N	19.9
9.994000	---	36.32	50.00	13.68	1000.0	9.000	N	20.3
9.994000	48.40	---	60.00	11.60	1000.0	9.000	N	20.3
13.214000	---	42.76	50.00	7.24	1000.0	9.000	N	20.5
13.214000	47.36	---	60.00	12.64	1000.0	9.000	N	20.5

SISO ANT2

Mode: 802.11b
 Distance of measurement: 3 meter
 Channel: 01 (Worst Case)

Hot Line

The spectrum plot for the Hot Line shows the signal level in dBμ across a frequency range from 150k to 30M Hz. The blue signal line fluctuates between approximately 20 and 50 dBμ. The red limit line starts at about 65 dBμ at 150k Hz, decreases to 60 dBμ at 100 MHz, and then steps up to 60 dBμ at 10 MHz. The green noise floor is consistently below 20 dBμ. Several data points are marked with blue diamonds and red asterisks, indicating specific frequency measurements.

Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.614000	---	27.20	46.00	18.80	1000.0	9.000	L1	20.0
0.614000	46.51	---	56.00	9.49	1000.0	9.000	L1	20.0
0.638000	---	32.14	46.00	13.86	1000.0	9.000	L1	20.0
0.638000	42.49	---	56.00	13.51	1000.0	9.000	L1	20.0
1.102000	---	19.16	46.00	26.84	1000.0	9.000	L1	20.2
1.102000	41.02	---	56.00	14.98	1000.0	9.000	L1	20.2
4.642000	---	30.84	46.00	15.16	1000.0	9.000	L1	20.0
4.642000	40.89	---	56.00	15.11	1000.0	9.000	L1	20.0
11.070000	---	43.83	50.00	6.17	1000.0	9.000	L1	20.4
11.070000	56.07	---	60.00	3.93	1000.0	9.000	L1	20.4
11.074000	---	43.01	50.00	6.99	1000.0	9.000	L1	20.4
11.074000	55.50	---	60.00	4.50	1000.0	9.000	L1	20.4

Neutral Line

The spectrum plot for the Neutral Line shows the signal level in dBμ across a frequency range from 150k to 30M Hz. The blue signal line fluctuates between approximately 20 and 50 dBμ. The red limit line starts at about 65 dBμ at 150k Hz, decreases to 60 dBμ at 100 MHz, and then steps up to 60 dBμ at 10 MHz. The green noise floor is consistently below 20 dBμ. Several data points are marked with blue diamonds and red asterisks, indicating specific frequency measurements.

Final Result

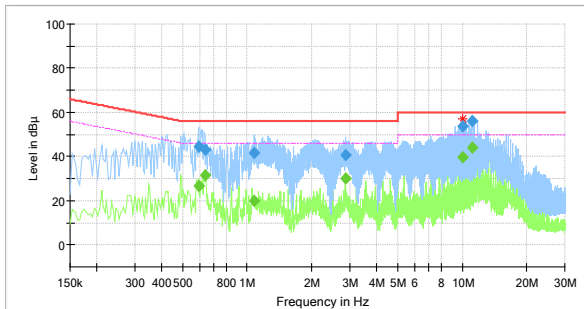
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.590000	---	27.19	46.00	18.81	1000.0	9.000	N	19.9
0.590000	42.86	---	56.00	13.14	1000.0	9.000	N	19.9
0.634000	---	30.38	46.00	15.62	1000.0	9.000	N	20.0
0.634000	40.80	---	56.00	15.20	1000.0	9.000	N	20.0
1.170000	---	19.21	46.00	26.79	1000.0	9.000	N	20.2
1.170000	39.95	---	56.00	16.05	1000.0	9.000	N	20.2
4.646000	---	27.57	46.00	18.43	1000.0	9.000	N	19.9
4.646000	37.80	---	56.00	18.20	1000.0	9.000	N	19.9
11.430000	---	42.57	50.00	7.43	1000.0	9.000	N	20.4
11.430000	51.78	---	60.00	8.22	1000.0	9.000	N	20.4
13.214000	---	42.64	50.00	7.36	1000.0	9.000	N	20.5
13.214000	47.35	---	60.00	12.65	1000.0	9.000	N	20.5

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MIMO (ANT 1+2)

Mode: 802.11b
 Distance of measurement: 3 meter
 Channel: 01 (Worst Case)

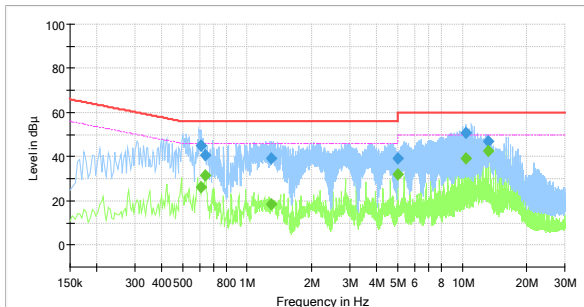
Hot Line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.594000	44.44	---	56.00	11.56	1000.0	9.000	L1	20.0
0.594000	---	26.66	46.00	19.34	1000.0	9.000	L1	20.0
0.634000	42.84	---	56.00	13.16	1000.0	9.000	L1	20.0
0.634000	---	31.42	46.00	14.58	1000.0	9.000	L1	20.0
1.082000	41.53	---	56.00	14.47	1000.0	9.000	L1	20.2
1.082000	---	19.88	46.00	26.12	1000.0	9.000	L1	20.2
2.854000	40.82	---	56.00	15.18	1000.0	9.000	L1	20.4
2.854000	---	29.87	46.00	16.13	1000.0	9.000	L1	20.4
9.998000	53.73	---	60.00	6.27	1000.0	9.000	L1	20.3
9.998000	---	39.83	50.00	10.17	1000.0	9.000	L1	20.3
11.070000	---	43.87	50.00	6.13	1000.0	9.000	L1	20.4
11.070000	55.98	---	60.00	4.02	1000.0	9.000	L1	20.4

Neutral Line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.610000	---	26.29	46.00	19.71	1000.0	9.000	N	19.9
0.610000	45.18	---	56.00	10.82	1000.0	9.000	N	19.9
0.638000	---	31.31	46.00	14.69	1000.0	9.000	N	20.0
0.638000	40.68	---	56.00	15.32	1000.0	9.000	N	20.0
1.286000	---	18.67	46.00	27.33	1000.0	9.000	N	20.3
1.286000	39.15	---	56.00	16.85	1000.0	9.000	N	20.3
4.998000	---	31.99	46.00	14.01	1000.0	9.000	N	19.9
4.998000	39.43	---	56.00	16.57	1000.0	9.000	N	19.9
10.358000	---	39.14	50.00	10.86	1000.0	9.000	N	20.3
10.358000	50.96	---	60.00	9.04	1000.0	9.000	N	20.3
13.214000	---	42.59	50.00	7.41	1000.0	9.000	N	20.5
13.214000	47.17	---	60.00	12.83	1000.0	9.000	N	20.5

Appendix A. Measurement equipment

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
Spectrum analyzer	R&S	FSV3044	101272	1 year	2023.03.14
Spectrum analyzer	R&S	FSV40-N	102194	1 year	2023.08.11
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2023.04.27
SIGNAL GENERATOR	Anritsu	68369B	002118	1 year	2023.05.13
Power Meter	Anritsu	ML2495A	2010001	1 year	2023.04.27
Pulse Power Sensor	Anritsu	MA2411B	1911111	1 year	2023.04.27
Attenuator	Mini-Circuits	BW-S10-2W263+	3	1 year	2023.01.17
Loop Antenna	Schwarzbeck	FMZB1513	225	2 years	2023.01.18
TRILOG-BROADBAND ANTENNA	Schwarzbeck	VULB 9163	714	2 years	2024.04.19
Attenuator	HUBER+SHHNER	6806.17.A	NONE	1 year	2023.04.01
Horn Antenna	A.H	SAS-571	414	1 year	2023.01.18
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170550	1 year	2023.01.18
Amplifier	SONOMA INSTRUMENT	310N	100517	1 year	2023.08.01
PREAMPLIFIER	HP	8449B	3008A00538	1 year	2023.06.02
BROADBAND AMPLIFIER	SCHWARZBECK	BBV9721	PS9721-003	1 year	2023.01.17
DC Power supply	Agilent	6632B	MY43004090	1 year	2023.06.21
EMI Test Receiver	R&S	ESU26	100517	1 year	2023.08.01
EMI Test Receiver	R&S	ESR3	101783	1 year	2023.11.11
PULSE LIMITER	R&S	ESH2-Z2	101915	1 year	2023.11.10
LISN	R&S	ENV216	101787	1 year	2023.11.10
BAND REJECT FILTER	MICRO-TRONICS	BRM50702	G272	1 year	2023.01.14

Peripheral devices

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

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