

ANNEX A: Test Result

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) for the loop antenna, the others are vertical and horizontal. and the worst case was recorded.

1. Unwanted Emission

1.1. NearLink SLE

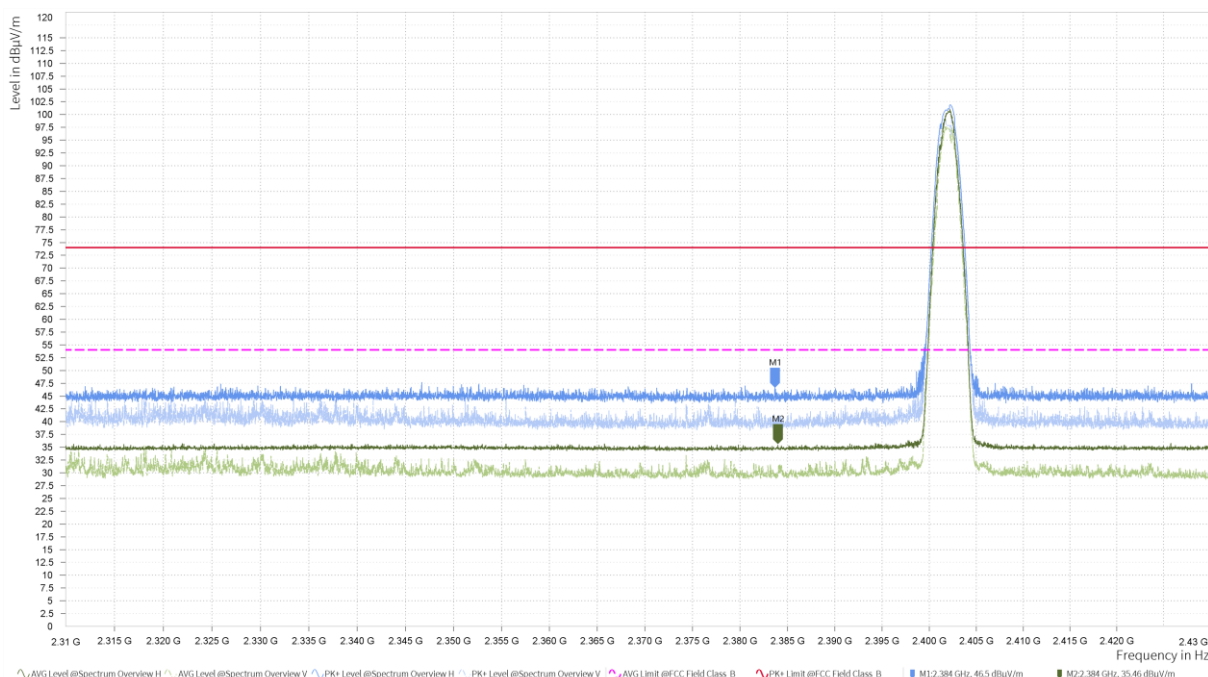
The following graphs display the maximum values of horizontal and vertical by software.
Blue trace uses the peak detection, Green trace uses the average detection.

After the pretest, NearLink SLE (1M) was selected as the worst Mode for NearLink SLE.

WR340

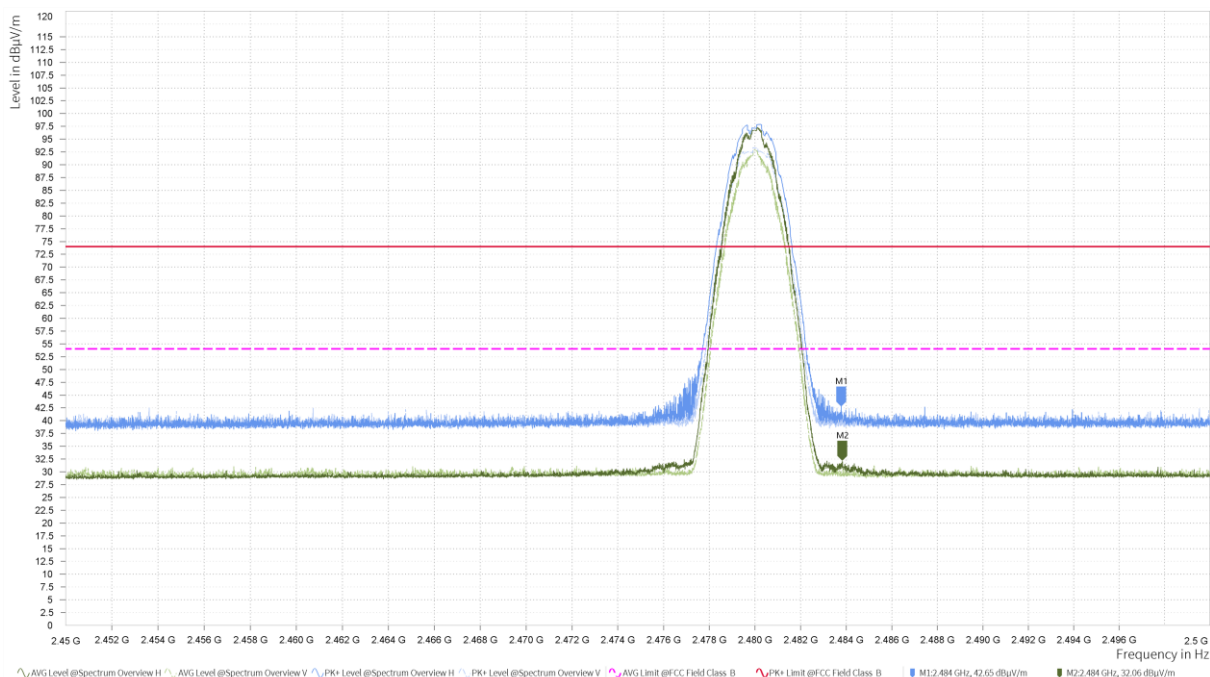
The signal beyond the limit is carrier.

Spectrum Overview H/V



NearLink SLE 2402MHz: Peak + Average

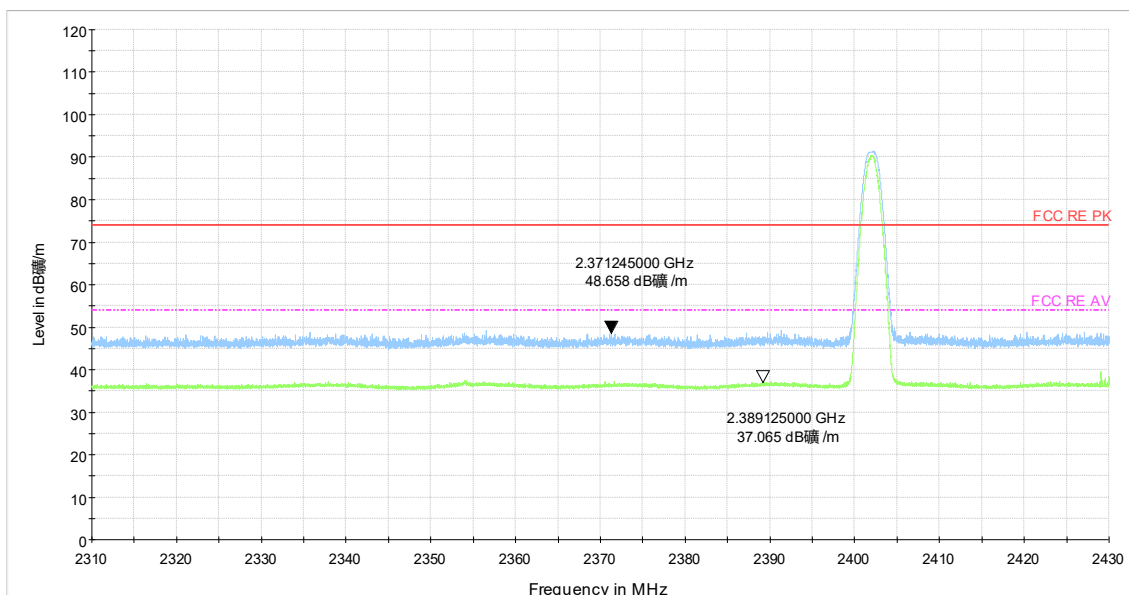
Spectrum Overview H/V



NearLink SLE 2480MHz: Peak + Average

WR320

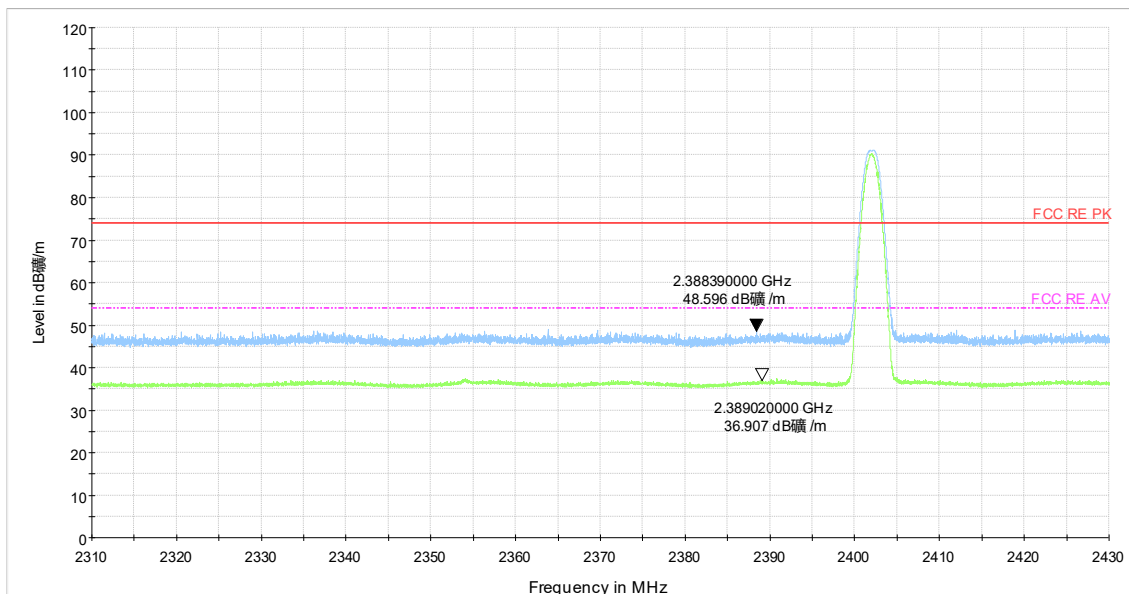
A symbol (dBμV/m) in the test plot below means (dBμV/m)



NearLink SLE 2402MHz: Peak + Average

WR310

A symbol ($\text{dB}\mu\text{V}/\text{m}$) in the test plot below means ($\text{dB}\mu\text{V}/\text{m}$)



NearLink SLE 2402MHz: Peak + Average

Result of RE

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier. The Radiates Emission from 9kHz to 30MHz and 18GHz to 26.5GHz are more than 20dB below the limit are not reported.

Remark:

1. **Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)**
2. **Margin = Limit – Quasi-Peak/ MAX Peak/ Average**
3. **The following graphs display the maximum values of horizontal and vertical by software.**
4. **For below 1GHz**

 QP Level @Spectrum Overview H
  QP Level @Spectrum Overview V
  QP Level @Final Results
  QP Limit

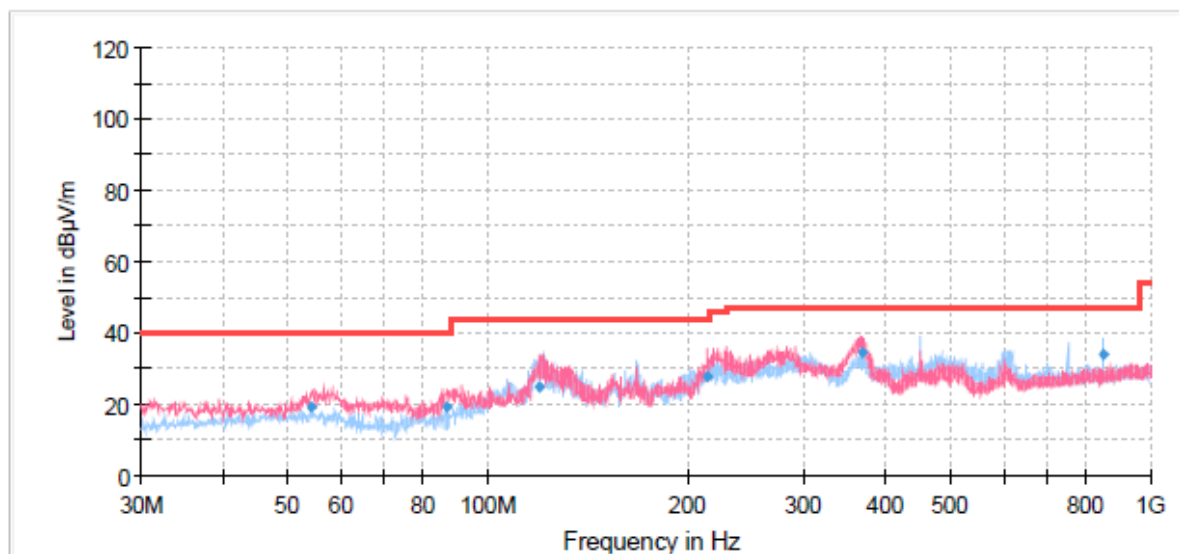
For above 1GHz

 PK Level @Spectrum Overview H
  PK Level @Spectrum Overview V
  PK Level @Final Results
  PK Limit
 AVG Level @Spectrum Overview H
  AVG Level @Spectrum Overview V
  AVG Level @Final Results
  AVG Limit

Continuous TX mode:

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels. The test data of the worst-case condition (**NearLink SLE 2440MHz**) was recorded in this report.

WR340

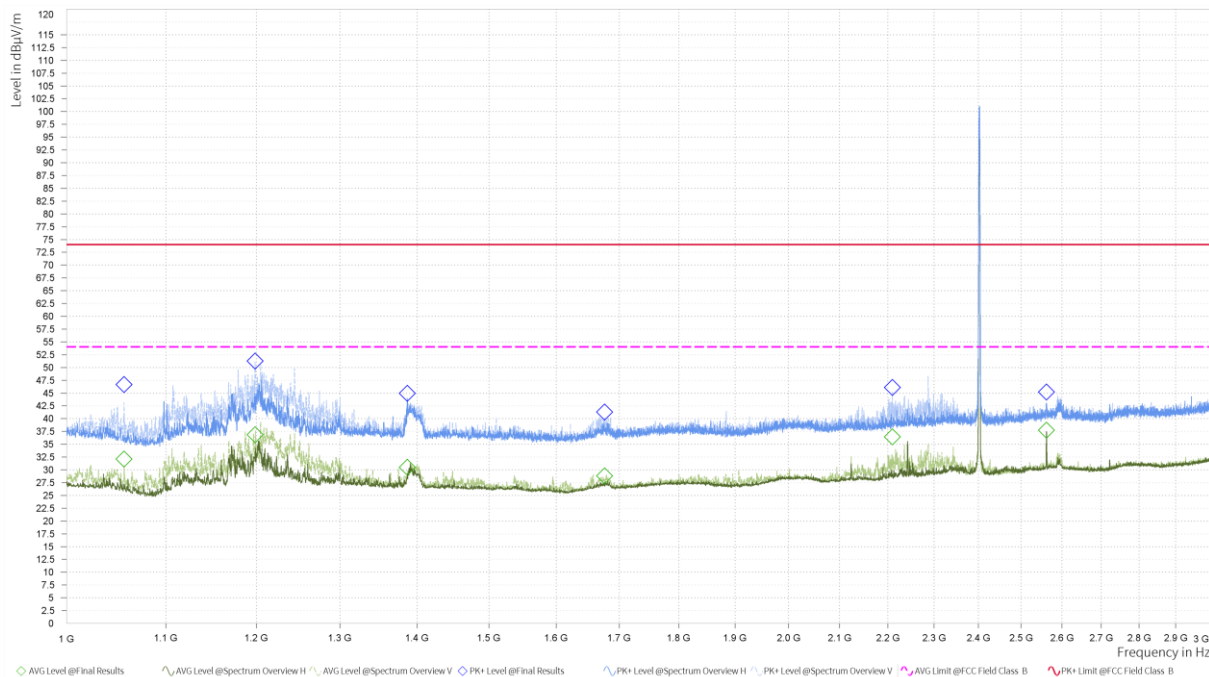


Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
54.08	19.12	40.00	20.88	100.0	V	24.00	20
86.58	19.36	40.00	20.64	100.0	V	326.00	16
119.57	24.84	43.50	18.66	100.0	V	176.00	17
214.30	27.69	43.50	15.81	100.0	V	17.00	18
365.99	34.43	47.00	12.57	100.0	V	347.00	22
850.02	33.85	47.00	13.15	100.0	H	198.00	30

NearLink SLE 2402MHz

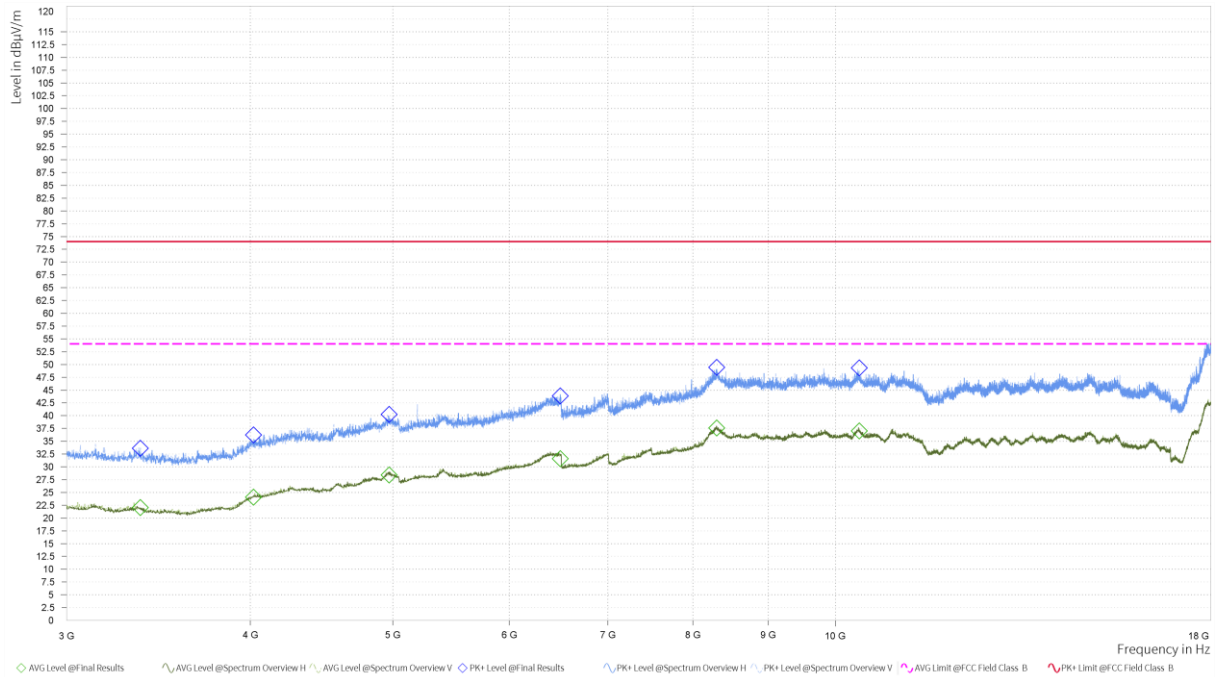
Spectrum Overview H/V



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,056.750	46.63	74.00	27.37	32.10	54.00	21.90	-5.70	V	138.1	2.00	1.000
1,198.250	51.21	74.00	22.79	36.84	54.00	17.16	-4.73	V	145	2.00	1.000
1,387.000	44.90	74.00	29.10	30.49	54.00	23.51	-4.45	H	215.6	2.00	1.000
1,676.250	41.29	74.00	32.71	28.78	54.00	25.22	-3.94	V	327.2	2.00	1.000
2,209.500	46.08	74.00	27.92	36.43	54.00	17.57	-1.13	V	169.4	1.00	1.000
2,562.000	45.18	74.00	28.82	37.71	54.00	16.29	0.68	H	350.1	2.00	1.000

Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 3GHz

Spectrum Overview H/V

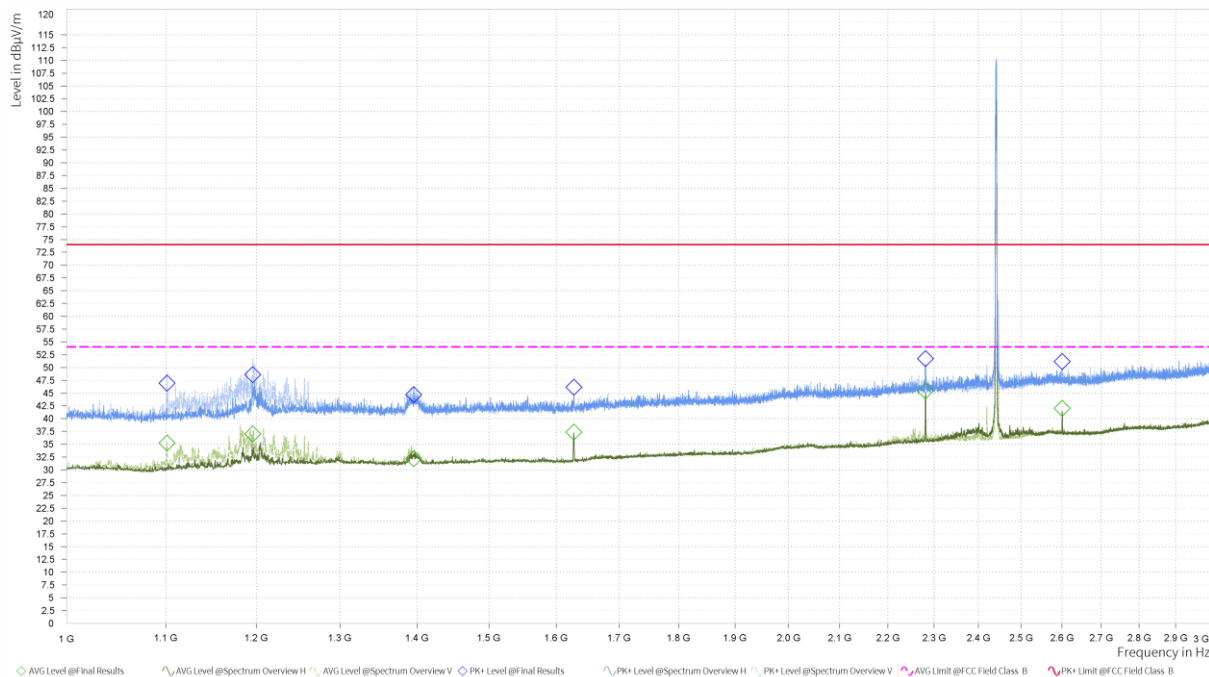


Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
3,367.500	33.60	74.00	40.40	22.02	54.00	31.98	-7.53	V	335.1	1.00	1.000
4,020.000	36.19	74.00	37.81	24.05	54.00	29.95	-5.43	V	357	2.00	1.000
4,970.625	40.21	74.00	33.79	28.37	54.00	25.63	-0.86	V	156.3	1.00	1.000
6,498.750	43.82	74.00	30.18	31.56	54.00	22.44	1.15	H	199.3	2.00	1.000
8,302.500	49.41	74.00	24.59	37.54	54.00	16.46	6.65	V	144.1	2.00	1.000
10,378.125	49.32	74.00	24.68	37.01	54.00	16.99	6.20	V	174	2.00	1.000

Radiates Emission from 3GHz to 18GHz

NearLink SLE 2440MHz

Spectrum Overview H/V

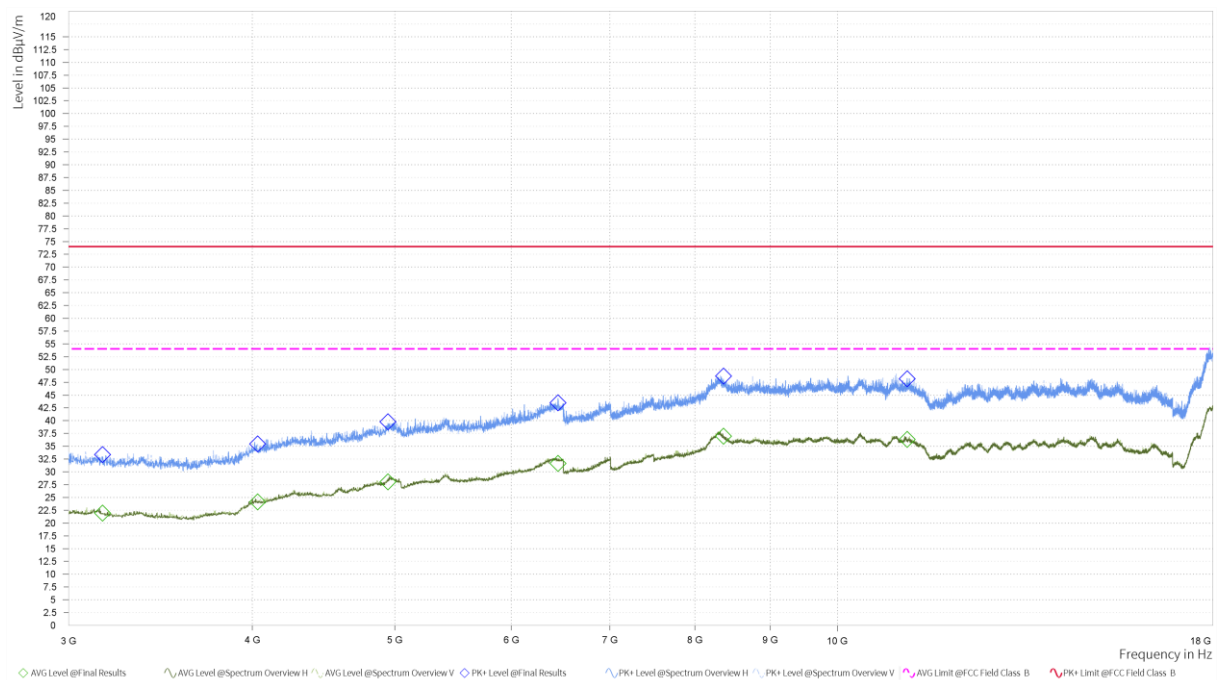


Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,101.250	46.89	74.00	27.11	35.20	54.00	18.80	-5.62	V	101.1	2.00	1.000
1,195.750	48.55	74.00	25.45	36.99	54.00	17.01	-4.77	V	135.2	2.00	1.000
1,395.500	44.67	74.00	29.33	32.12	54.00	21.88	-4.47	H	284.9	1.00	1.000
1,627.500	46.10	74.00	27.90	37.33	54.00	16.67	-4.21	H	164	2.00	1.000
2,280.750	51.70	74.00	22.30	45.39	54.00	8.61	-0.74	H	358.4	2.00	1.000
2,601.000	51.12	74.00	22.88	42.02	54.00	11.98	0.51	H	342.2	2.00	1.000

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

Spectrum Overview H/V

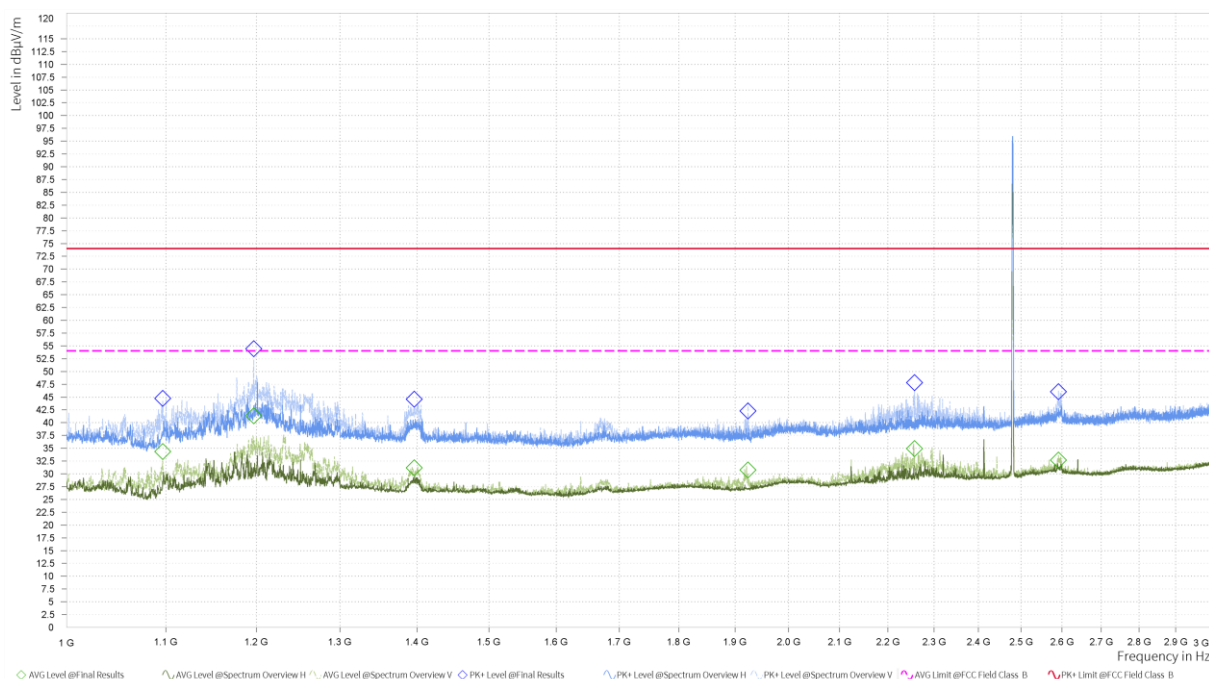


Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
3,163.125	33.34	74.00	40.66	21.91	54.00	32.09	-7.89	H	41.8	1.00	1.000
4,033.125	35.42	74.00	38.58	24.09	54.00	29.91	-5.46	V	126.6	1.00	1.000
4,946.250	39.77	74.00	34.23	28.04	54.00	25.96	-1.15	H	219.3	1.00	1.000
6,455.625	43.49	74.00	30.51	31.62	54.00	22.38	1.35	H	295.9	2.00	1.000
8,364.375	48.65	74.00	25.35	36.96	54.00	17.04	5.72	V	115.5	2.00	1.000
11,154.375	48.13	74.00	25.87	36.33	54.00	17.67	7.18	H	108.5	1.00	1.000

Radiates Emission from 3GHz to 18GHz

NearLink SLE 2480MHz

Spectrum Overview H/V

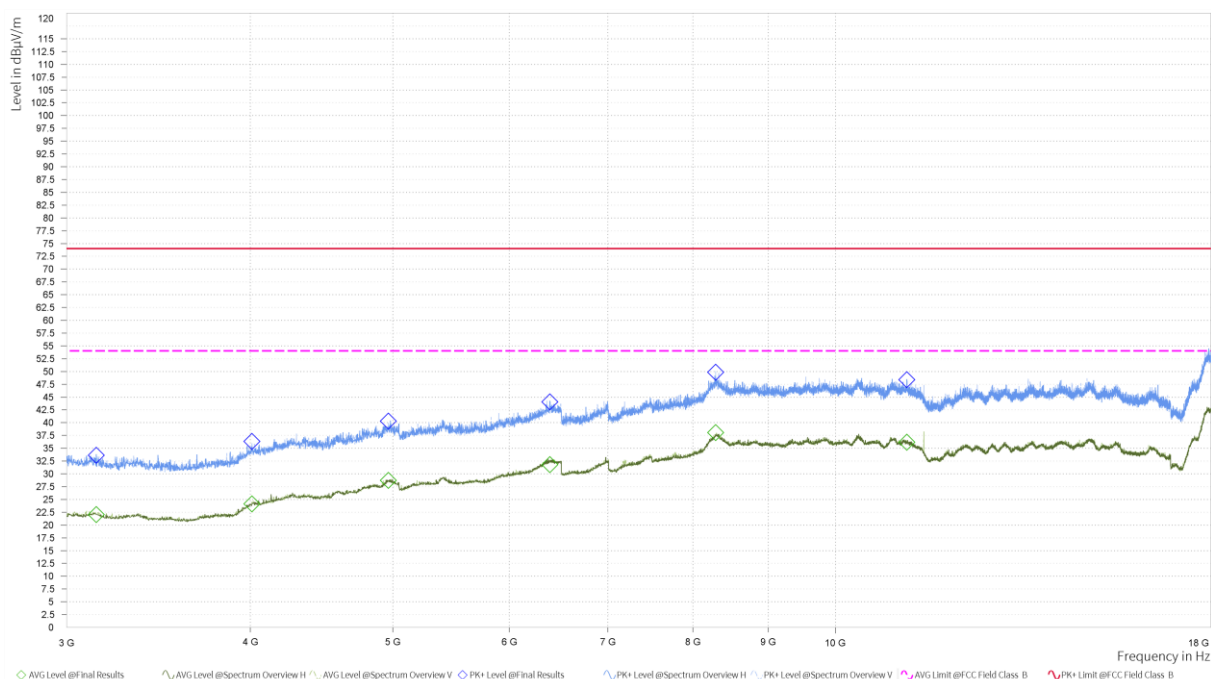


Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,096.750	44.72	74.00	29.28	34.33	54.00	19.67	-5.61	V	156.7	1.00	1.000
1,196.750	54.43	74.00	19.57	41.33	54.00	12.67	-4.75	V	156.7	1.00	1.000
1,396.250	44.55	74.00	29.45	31.15	54.00	22.85	-4.47	V	299.7	1.00	1.000
1,923.500	42.24	74.00	31.76	30.71	54.00	23.29	-2.78	V	306.1	2.00	1.000
2,257.250	47.80	74.00	26.20	34.91	54.00	19.09	-0.95	V	346.9	2.00	1.000
2,591.750	46.00	74.00	28.00	32.64	54.00	21.36	0.55	V	357.7	1.00	1.000

Note: The signal beyond the limit is carrier.

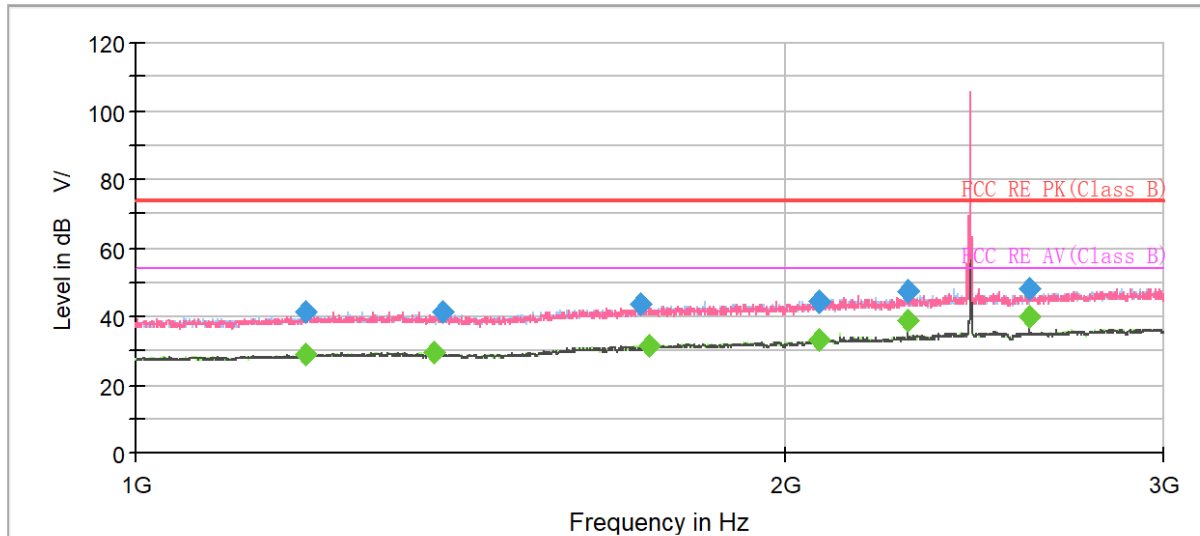
Radiates Emission from 1GHz to 3GHz

Spectrum Overview H/V



Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
3,142.500	33.58	74.00	40.42	21.99	54.00	32.01	-7.71	H	133	1.00	1.000
4,010.625	36.30	74.00	37.70	24.12	54.00	29.88	-5.48	V	43.7	2.00	1.000
4,965.000	40.30	74.00	33.70	28.72	54.00	25.28	-0.83	V	308.9	2.00	1.000
6,393.750	44.04	74.00	29.96	31.76	54.00	22.25	1.60	H	184.9	1.00	1.000
8,289.375	49.85	74.00	24.15	38.02	54.00	15.98	6.67	V	279	2.00	1.000
11,180.625	48.37	74.00	25.63	36.14	54.00	17.86	7.36	H	8.7	1.00	1.000

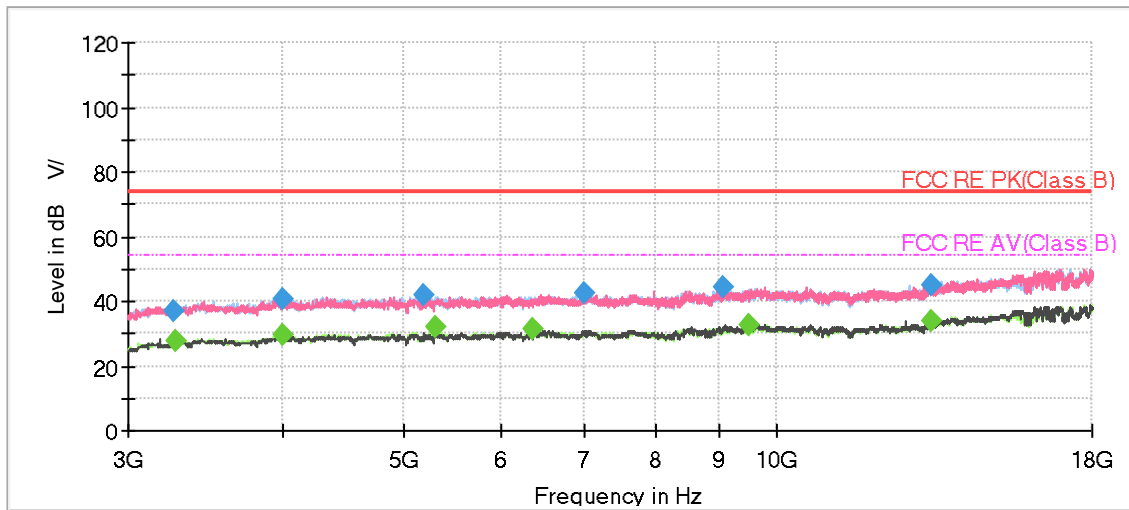
Radiates Emission from 3GHz to 18GHz

WR320
NearLink SLE 2440MHz


Note: The signal beyond the limit is carrier.

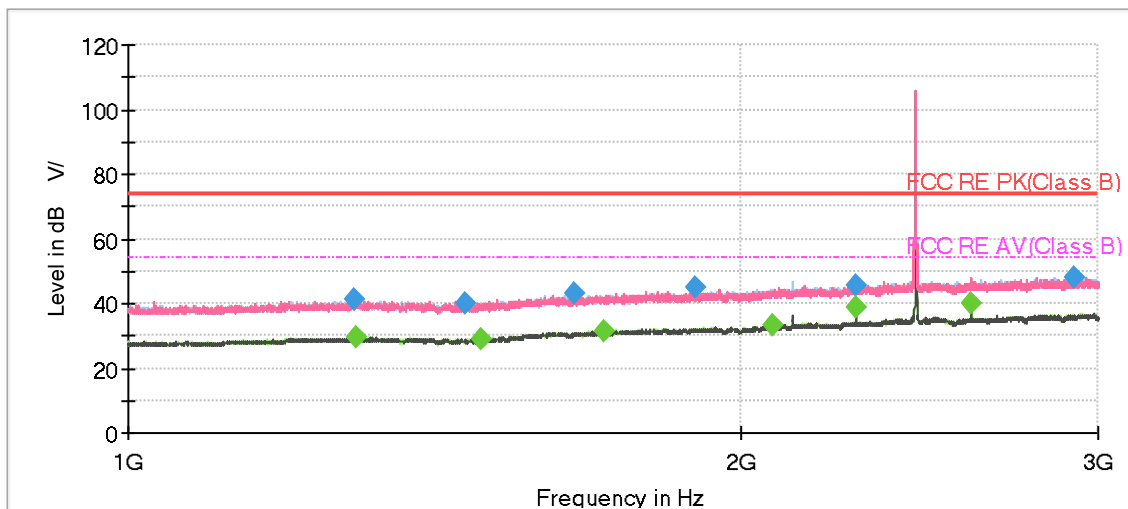
Radiates Emission from 1GHz to 3GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1198.250000	41.04	---	74.00	32.96	500.0	100.0	H	71.0	-8.8
1200.250000	---	29.13	54.00	24.87	500.0	200.0	H	134.0	-8.8
1375.750000	---	29.64	54.00	24.36	500.0	200.0	V	111.0	-7.7
1387.750000	41.50	---	74.00	32.50	500.0	100.0	V	80.0	-7.7
1713.000000	43.55	---	74.00	30.45	500.0	200.0	V	202.0	-5.9
1730.500000	---	31.45	54.00	22.55	500.0	100.0	V	15.0	-5.8
2075.750000	---	33.11	54.00	20.89	500.0	200.0	V	218.0	-4.0
2076.750000	44.53	---	74.00	29.47	500.0	200.0	H	155.0	-3.9
2280.000000	---	38.71	54.00	15.29	500.0	100.0	H	346.0	-3.0
2280.250000	47.41	---	74.00	26.59	500.0	200.0	V	63.0	-3.0
2600.000000	---	40.27	54.00	13.73	500.0	200.0	V	339.0	-2.0
2600.250000	47.85	---	74.00	26.15	500.0	200.0	V	345.0	-2.0



Radiates Emission from 3GHz to 18GHz

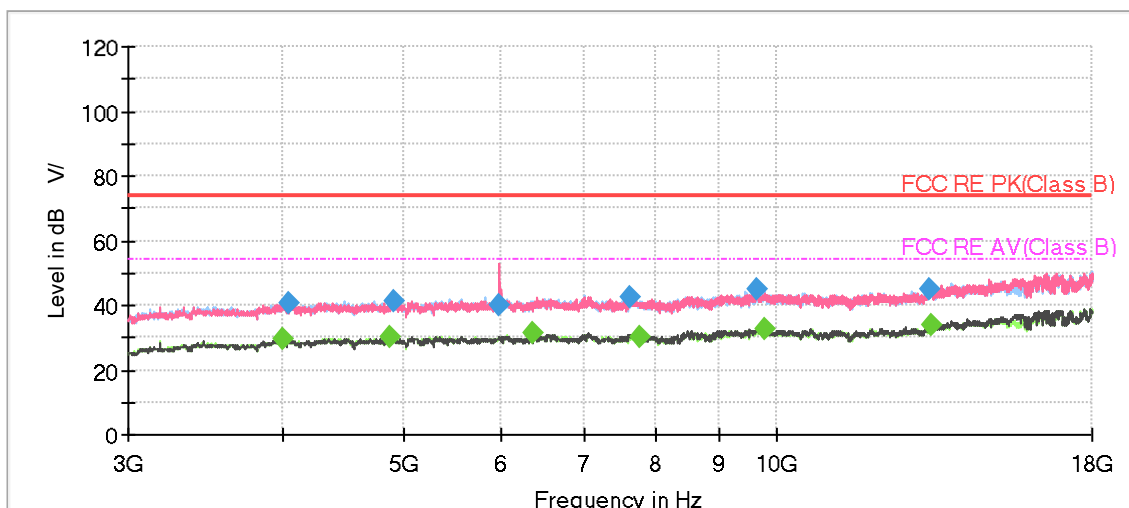
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3266.250000	37.21	---	74.00	36.79	500.0	100.0	H	0.0	-9.5
3277.500000	---	27.58	54.00	26.42	500.0	100.0	H	0.0	-9.4
4003.125000	---	29.31	54.00	24.69	500.0	100.0	H	0.0	-6.8
4005.000000	40.50	---	74.00	33.50	500.0	100.0	H	178.0	-6.8
5203.125000	41.74	---	74.00	32.26	500.0	200.0	V	117.0	-4.7
5310.000000	---	32.03	54.00	21.97	500.0	200.0	H	304.0	-4.6
6371.250000	---	31.37	54.00	22.63	500.0	200.0	H	357.0	-4.3
7005.000000	42.51	---	74.00	31.49	500.0	100.0	V	54.0	-3.0
9052.500000	44.30	---	74.00	29.70	500.0	100.0	V	273.0	-1.3
9521.250000	---	32.77	54.00	21.23	500.0	100.0	V	182.0	-0.1
13333.125000	45.06	---	74.00	28.94	500.0	200.0	V	92.0	2.3
13346.250000	---	33.78	54.00	20.22	500.0	200.0	V	74.0	2.4

WR310
NearLink SLE 2440MHz


Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1291.750000	40.99	---	74.00	33.01	500.0	200.0	V	340.0	-8.2
1295.500000	---	29.46	54.00	24.54	500.0	100.0	V	74.0	-8.2
1464.250000	39.82	---	74.00	34.18	500.0	200.0	V	334.0	-7.2
1491.750000	---	28.90	54.00	25.10	500.0	200.0	V	319.0	-7.1
1658.000000	43.24	---	74.00	30.76	500.0	100.0	V	4.0	-6.1
1712.750000	---	31.43	54.00	22.57	500.0	200.0	H	108.0	-5.9
1902.750000	44.82	---	74.00	29.18	500.0	200.0	H	24.0	-5.0
2074.250000	---	33.16	54.00	20.84	500.0	200.0	V	195.0	-4.0
2279.250000	45.51	---	74.00	28.49	500.0	200.0	H	3.0	-3.0
2280.000000	---	39.02	54.00	14.98	500.0	100.0	V	30.0	-3.0
2600.000000	---	39.93	54.00	14.07	500.0	200.0	V	334.0	-2.0
2920.250000	48.00	---	74.00	26.00	500.0	200.0	V	298.0	-1.0



Radiates Emission from 3GHz to 18GHz

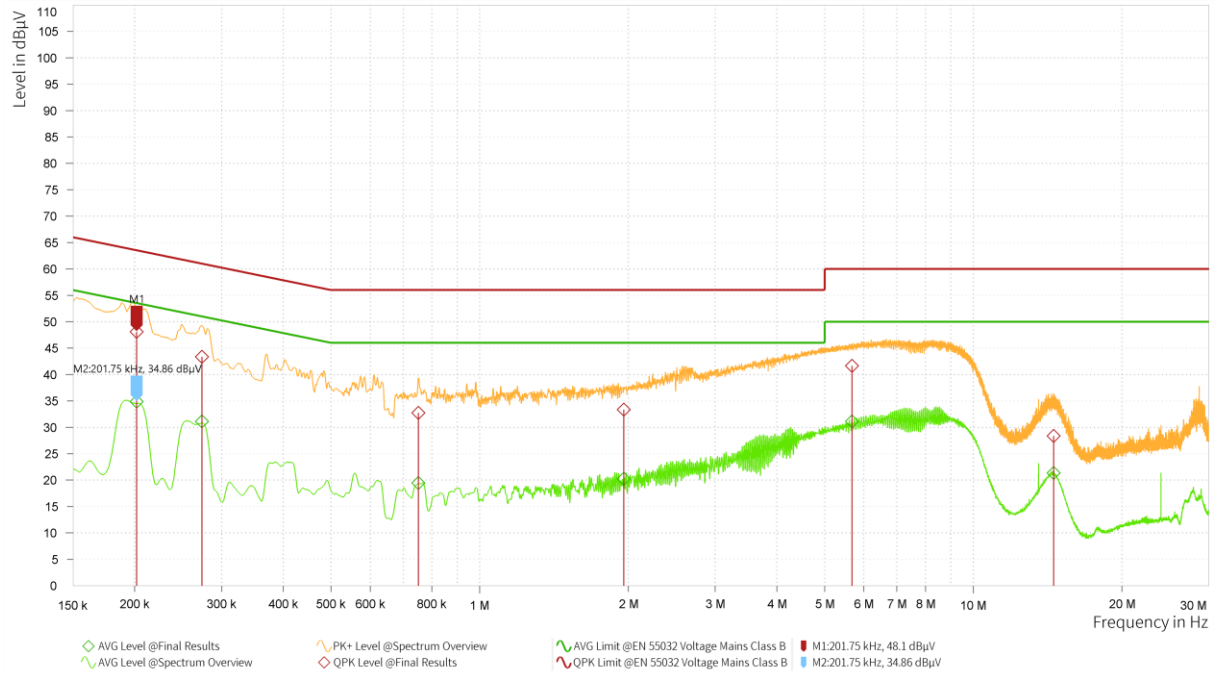
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4001.250000	---	29.44	54.00	24.56	500.0	100.0	H	38.0	-6.8
4038.750000	40.45	---	74.00	33.55	500.0	200.0	H	281.0	-6.7
4880.625000	---	30.26	54.00	23.74	500.0	200.0	V	65.0	-5.7
4908.750000	41.46	---	74.00	32.54	500.0	200.0	H	269.0	-5.4
5977.500000	40.08	---	74.00	33.92	500.0	200.0	H	71.0	-4.6
6371.250000	---	31.61	54.00	22.39	500.0	200.0	H	319.0	-4.3
7618.125000	42.44	---	74.00	31.56	500.0	200.0	V	89.0	-2.9
7766.250000	---	30.30	54.00	23.70	500.0	100.0	H	347.0	-2.5
9661.875000	44.92	---	74.00	29.08	500.0	100.0	V	138.0	-0.6
9783.750000	---	32.70	54.00	21.30	500.0	200.0	V	71.0	-0.5
13305.000000	44.79	---	74.00	29.21	500.0	100.0	V	210.0	2.3
13336.875000	---	33.78	54.00	20.22	500.0	100.0	H	75.0	2.3

2. Conducted Emission

2.1. NearLink SLE

During the test, the Conducted Emission was performed in all modes with all channels. The test data of the worst-case condition (**NearLink SLE 2440MHz**) was recorded in this report.

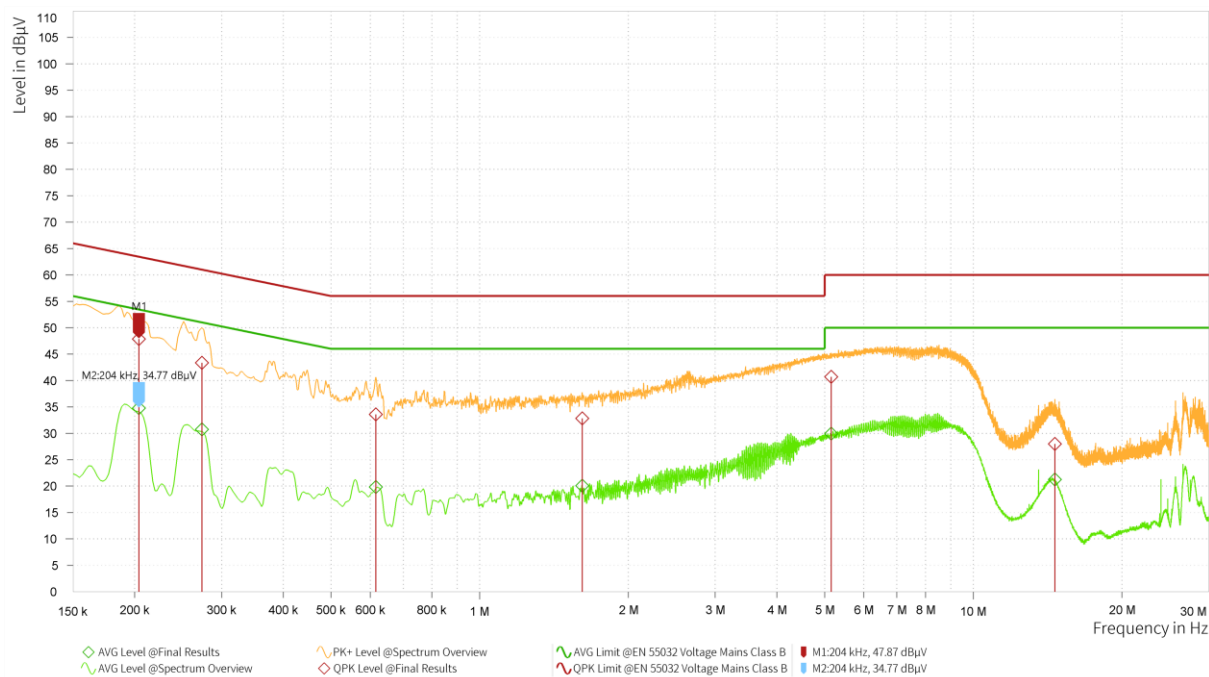
WR320



Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.202	48.10	63.54	15.44	34.86	53.54	18.68	21.01	L1	9.000	1.000
0.274	43.34	61.00	17.66	31.12	51.00	19.89	20.96	L1	9.000	1.000
0.751	32.75	56.00	23.25	19.45	46.00	26.55	20.37	L1	9.000	1.000
1.959	33.33	56.00	22.67	20.28	46.00	25.72	19.66	L1	9.000	1.000
5.681	41.64	60.00	18.36	31.13	50.00	18.87	19.40	L1	9.000	1.000
14.557	28.37	60.00	31.63	21.35	50.00	28.65	19.49	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz

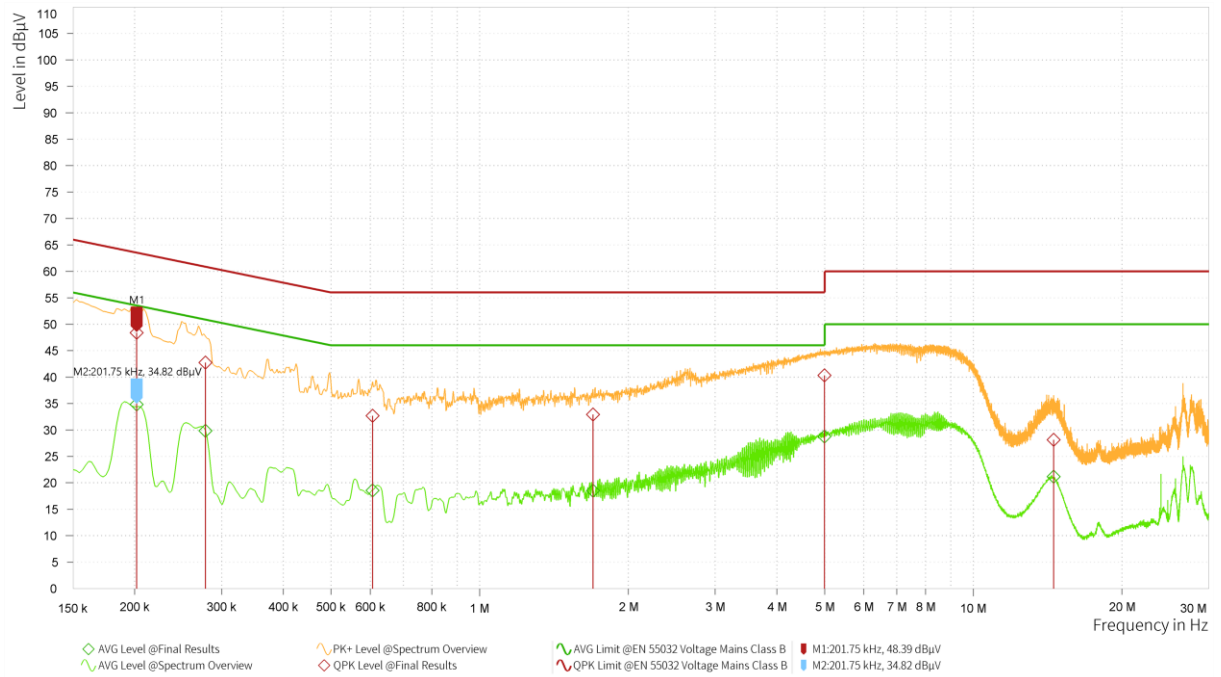


Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.204	47.87	63.45	15.57	34.77	53.45	18.68	21.02	N	9.000	1.000
0.274	43.35	61.00	17.65	30.74	51.00	20.26	20.97	N	9.000	1.000
0.616	33.57	56.00	22.43	19.83	46.00	26.17	20.67	N	9.000	1.000
1.613	32.84	56.00	23.16	20.08	46.00	25.92	19.80	N	9.000	1.000
5.152	40.71	60.00	19.29	29.95	50.00	20.05	19.41	N	9.000	1.000
14.629	27.99	60.00	32.01	21.24	50.00	28.76	19.52	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

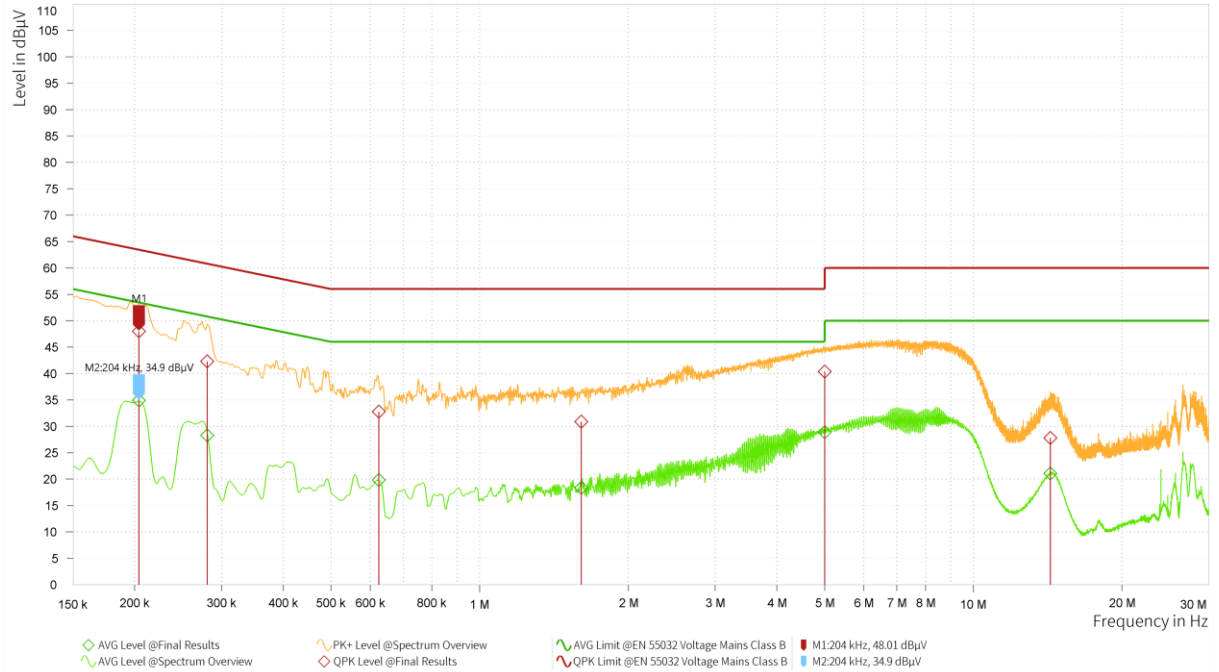
WR310



Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.202	48.39	63.54	15.14	34.82	53.54	18.72	21.01	L1	9.000	1.000
0.278	42.76	60.87	18.11	29.81	50.87	21.05	20.95	L1	9.000	1.000
0.607	32.68	56.00	23.32	18.57	46.00	27.43	20.67	L1	9.000	1.000
1.696	32.92	56.00	23.08	18.52	46.00	27.48	19.75	L1	9.000	1.000
4.994	40.30	56.00	15.70	28.73	46.00	17.27	19.40	L1	9.000	1.000
14.543	28.15	60.00	31.85	21.18	50.00	28.82	19.49	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.204	48.01	63.45	15.43	34.90	53.45	18.55	21.02	N	9.000	1.000
0.281	42.29	60.80	18.51	28.29	50.80	22.51	20.96	N	9.000	1.000
0.625	32.78	56.00	23.22	19.81	46.00	26.19	20.66	N	9.000	1.000
1.606	30.89	56.00	25.11	18.37	46.00	27.63	19.80	N	9.000	1.000
5.000	40.35	56.00	15.65	28.91	46.00	17.09	19.41	N	9.000	1.000
14.336	27.78	60.00	32.22	21.07	50.00	28.93	19.51	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz