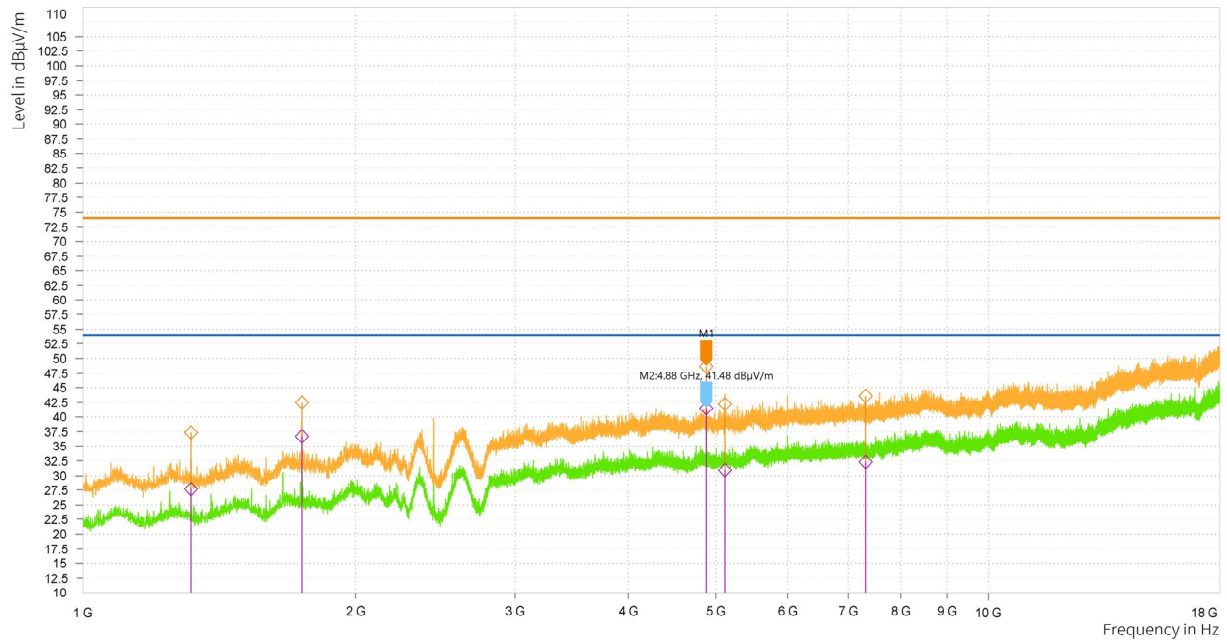




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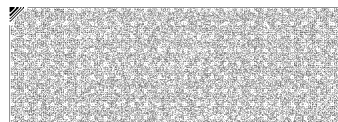
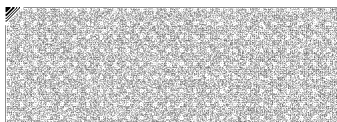
RE(Above 1 GHz)_EDR_2 441 MHz



Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
1 316.500	53.11	37.39	-	14.89	-22.50	2.00	V	43.5	-15.72	36.61	74.00	39.11	54.00
1 745.500	55.84	42.51	-	20.01	-22.50	2.00	V	187.5	-13.33	31.49	74.00	33.99	54.00
* 4 879.500	51.16	48.69	-	26.19	-22.50	3.00	H	160.1	-2.47	25.31	74.00	27.81	54.00
* 5 115.000	44.58	42.27	-	19.77	-22.50	2.00	H	139.1	-2.31	31.73	74.00	34.23	54.00
* 7 320.000	43.56	43.65	-	21.15	-22.50	3.00	V	359.9	0.09	30.35	74.00	32.85	54.00

Note)

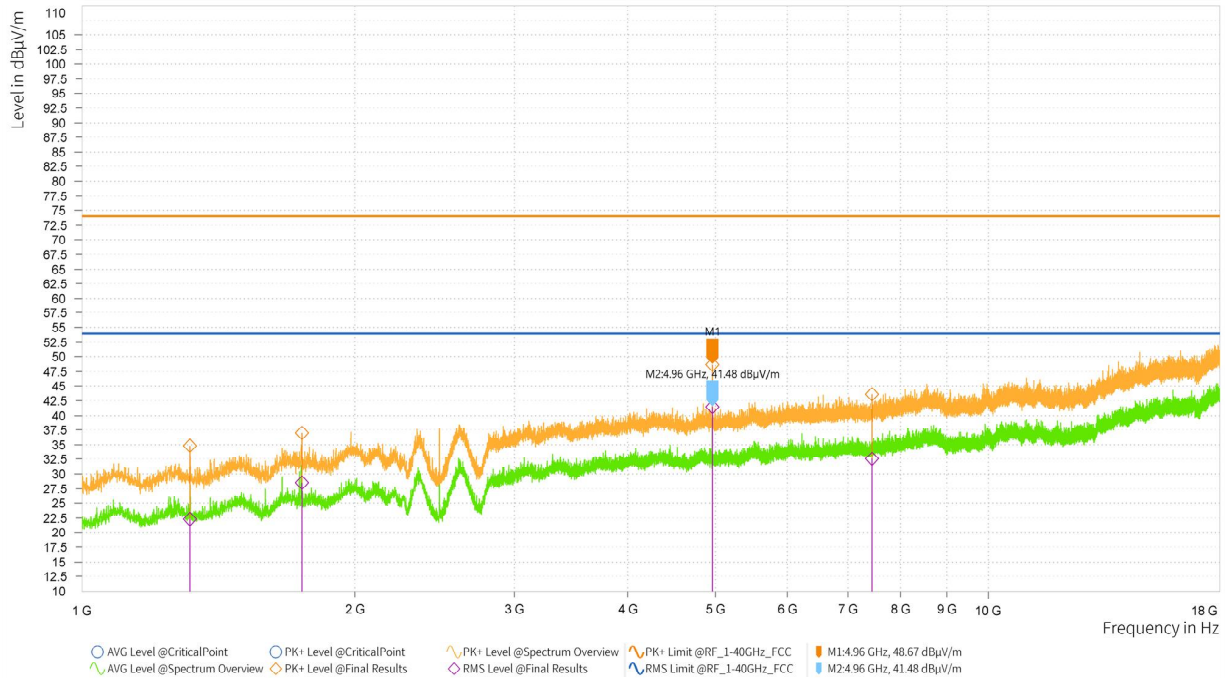
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = $20 \times \log(\text{worst dwell time}/100 \text{ ms})$
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) - (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.





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RE(Above 1 GHz)_EDR_2 480 MHz



Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
1 315.500	50.55	34.82	-	12.32	-22.50	2.00	V	58.2	-15.73	39.18	74.00	41.68	54.00
1 748.500	50.33	37.00	-	14.50	-22.50	3.00	V	42.4	-13.33	37.00	74.00	39.50	54.00
* 4 959.500	51.02	48.67	-	26.17	-22.50	2.00	H	161.8	-2.35	25.33	74.00	27.83	54.00
* 7 440.000	43.47	43.59	-	21.09	-22.50	2.00	V	188.0	0.12	30.41	74.00	32.91	54.00

Note)

1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = 20 x Log(worst dwell time/100 ms)
4. Correction Factor(dB/m) = Antenna Factor(dB) + Cable Factor(dB) - Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) - (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.

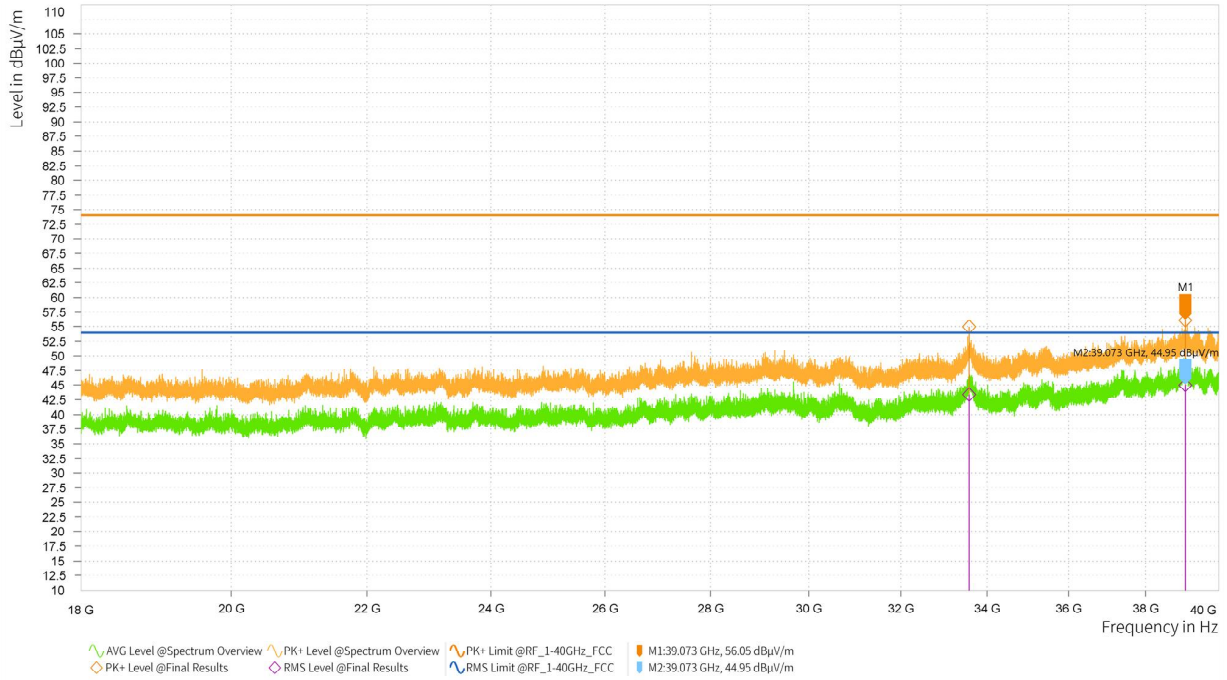




KIEL2403-YW03401-R01

Radiated Emission (Above 18 GHz)

Worst Case - RE(Above 18 GHz)_EDR_2 402 MHz



Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
33 575.000	53.91	54.99	-	32.49	-22.50	2.00	H	279.8	1.08	19.01	74.00	21.51	54.00
39 073.000	51.42	56.05	-	33.55	-22.50	3.00	H	267.0	4.63	17.95	74.00	20.45	54.00

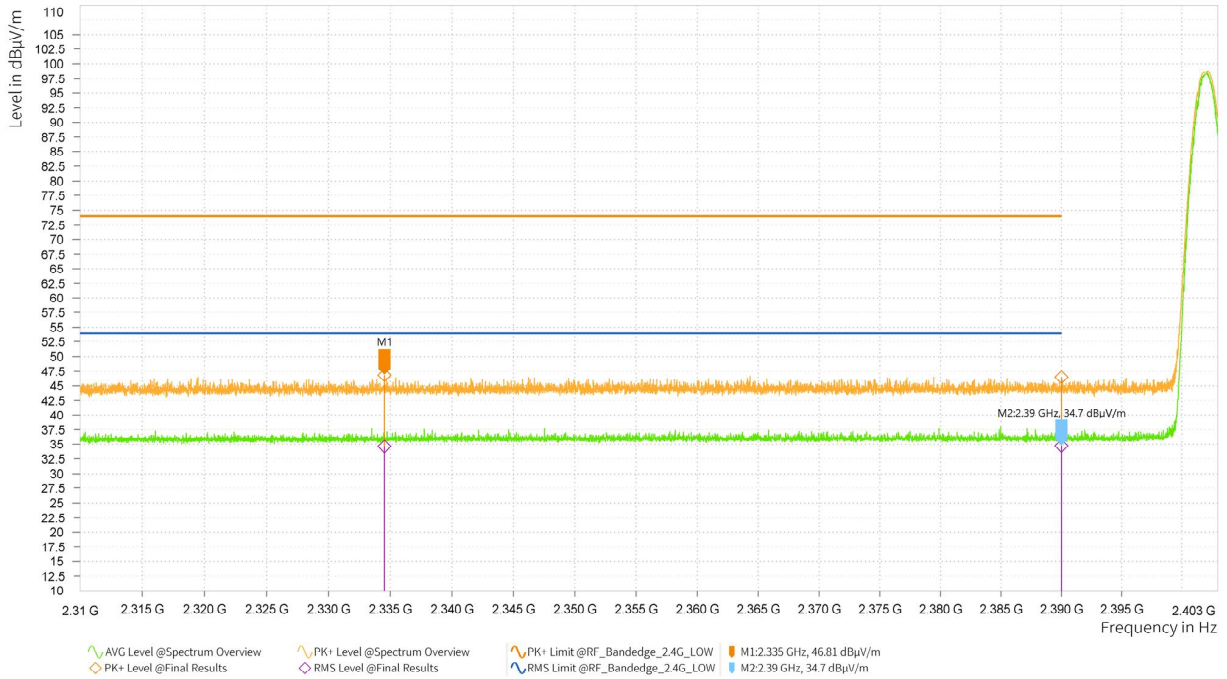
Note)

1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = 20 x Log(worst dwell time/100 ms)
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.





KIEL2403-YW03401-R01

Band Edge**Band Edge - RE_BDR_2 402 MHz**

	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
*	2 334.534	47.73	46.81	-	24.31	-22.50	1.00	H	46.1	-0.92	27.19	74.00	29.69	54.00
*	2 390.000	47.28	46.48	-	23.98	-22.50	3.00	V	271.5	-0.80	27.52	74.00	30.02	54.00

Note)

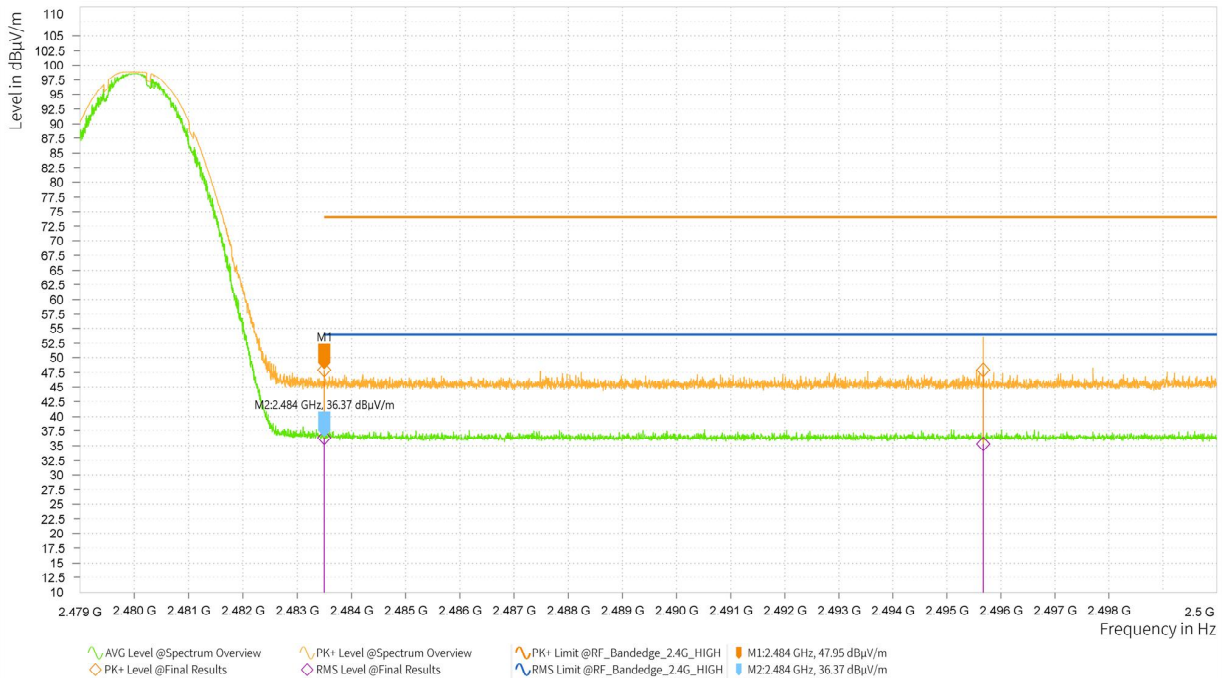
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = 20 x Log(worst dwell time/100 ms)
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.





KIEL2403-YW03401-R01

Band Edge - RE_BDR_2 480 MHz



	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
*	2 483.500	48.08	47.95	-	25.45	-22.50	2.00	H	186.8	-0.13	26.05	74.00	28.55	54.00
*	2 495.673	48.01	47.94	-	25.44	-22.50	3.00	V	151.0	-0.07	26.06	74.00	28.56	54.00

Note)

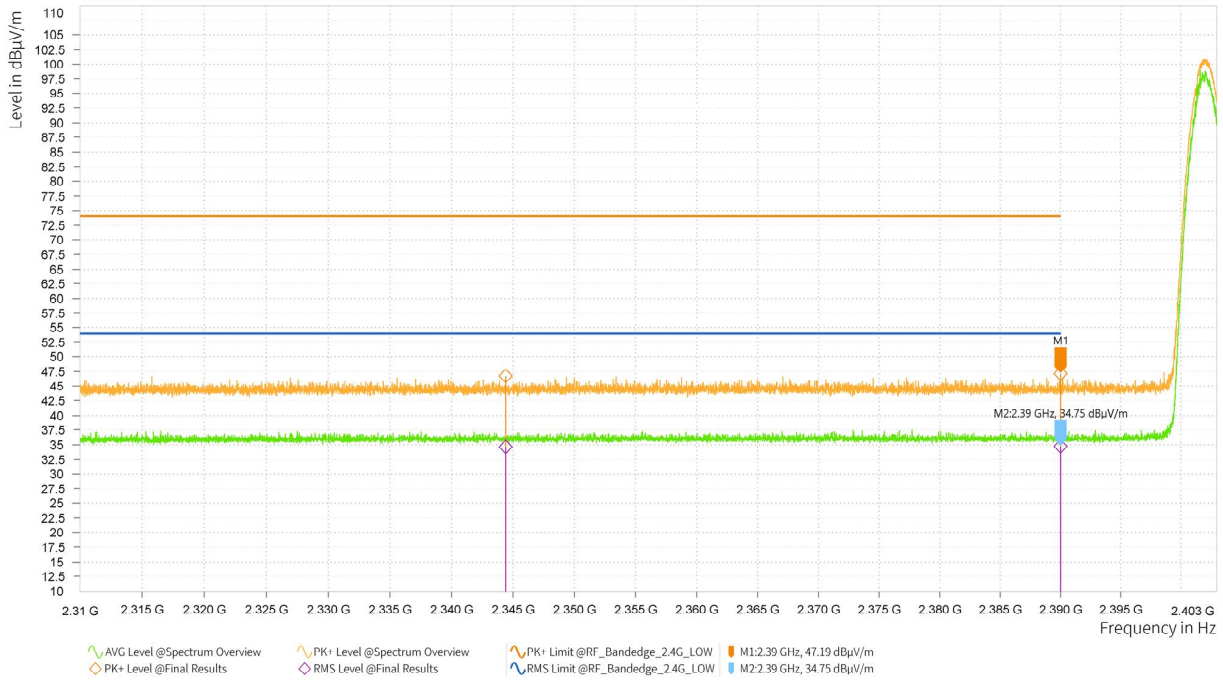
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = $20 \times \log(\text{worst dwell time}/100 \text{ ms})$
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) - (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.





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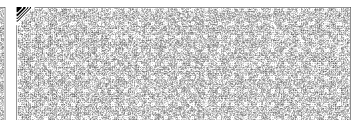
Band Edge - RE_EDR_2 402 MHz



	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
*	2 344.410	47.65	46.78	-	24.28	-22.50	1.00	V	200.5	-0.87	27.22	74.00	29.72	54.00
*	2 390.000	47.99	47.19	-	24.69	-22.50	2.00	H	238.7	-0.80	26.81	74.00	29.31	54.00

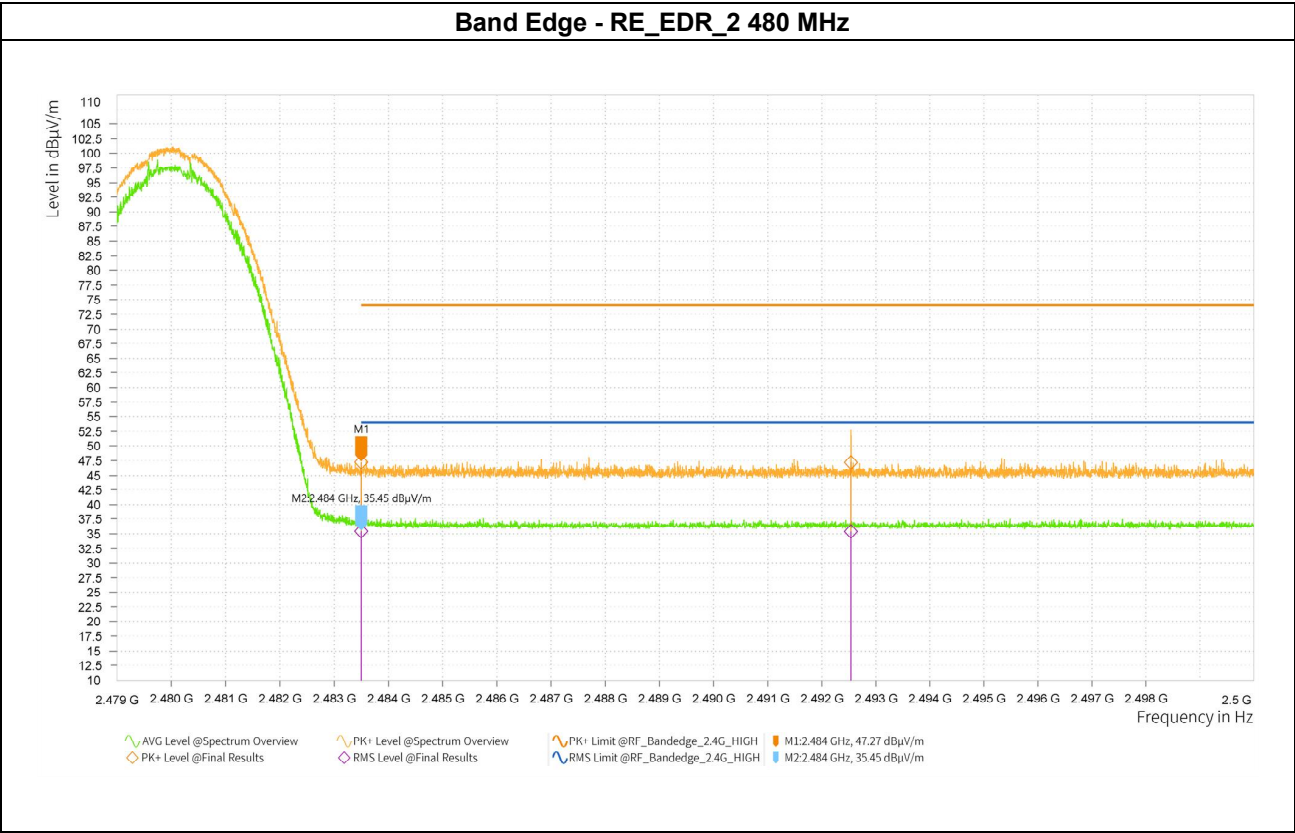
Note)

1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
3. DCCF(Duty Cycle Correction Factor) = $20 \times \log(\text{worst dwell time}/100 \text{ ms})$
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.



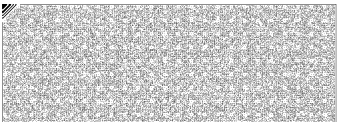
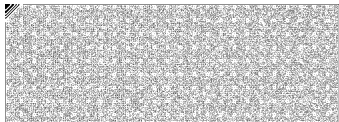


KIEL2403-YW03401-R01



Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
* 2 483.500	47.40	47.27	-	24.77	-22.50	3.00	V	126.1	-0.13	26.73	74.00	29.23	54.00
* 2 492.541	47.31	47.23	-	24.73	-22.50	1.00	H	162.9	-0.08	26.77	74.00	29.27	54.00

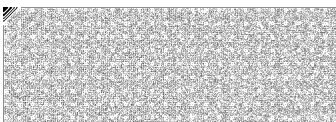
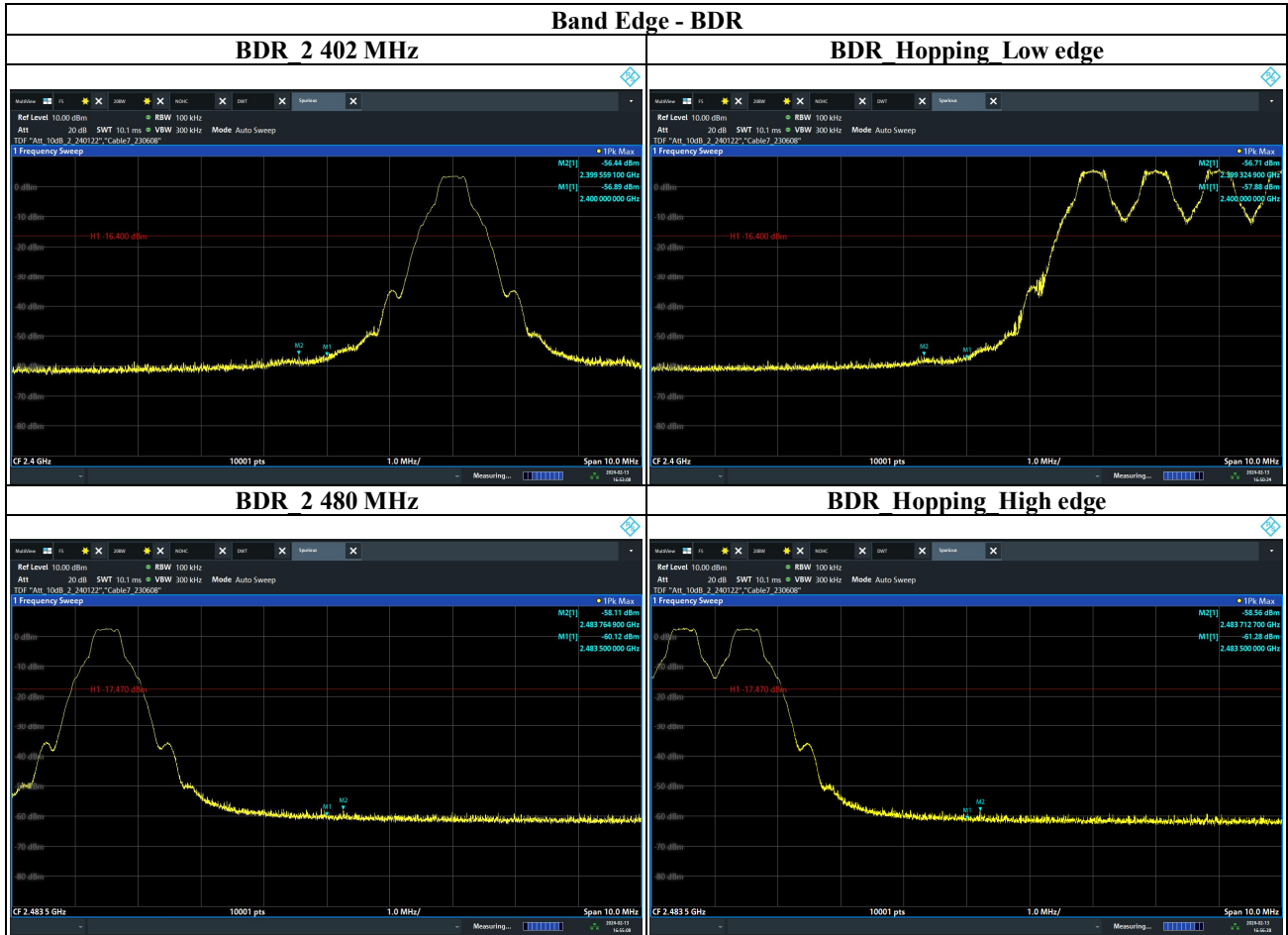
- Note)
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
 2. AVG Result(dBuV/m) = Peak Result(dBuV/m) + DCCF(dB)
 3. DCCF(Duty Cycle Correction Factor) = 20 x Log(worst dwell time/100 ms)
 4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
 5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
 6. * - indicates frequency in Restricted Band.





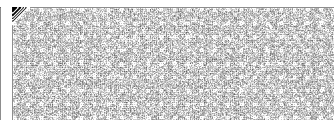
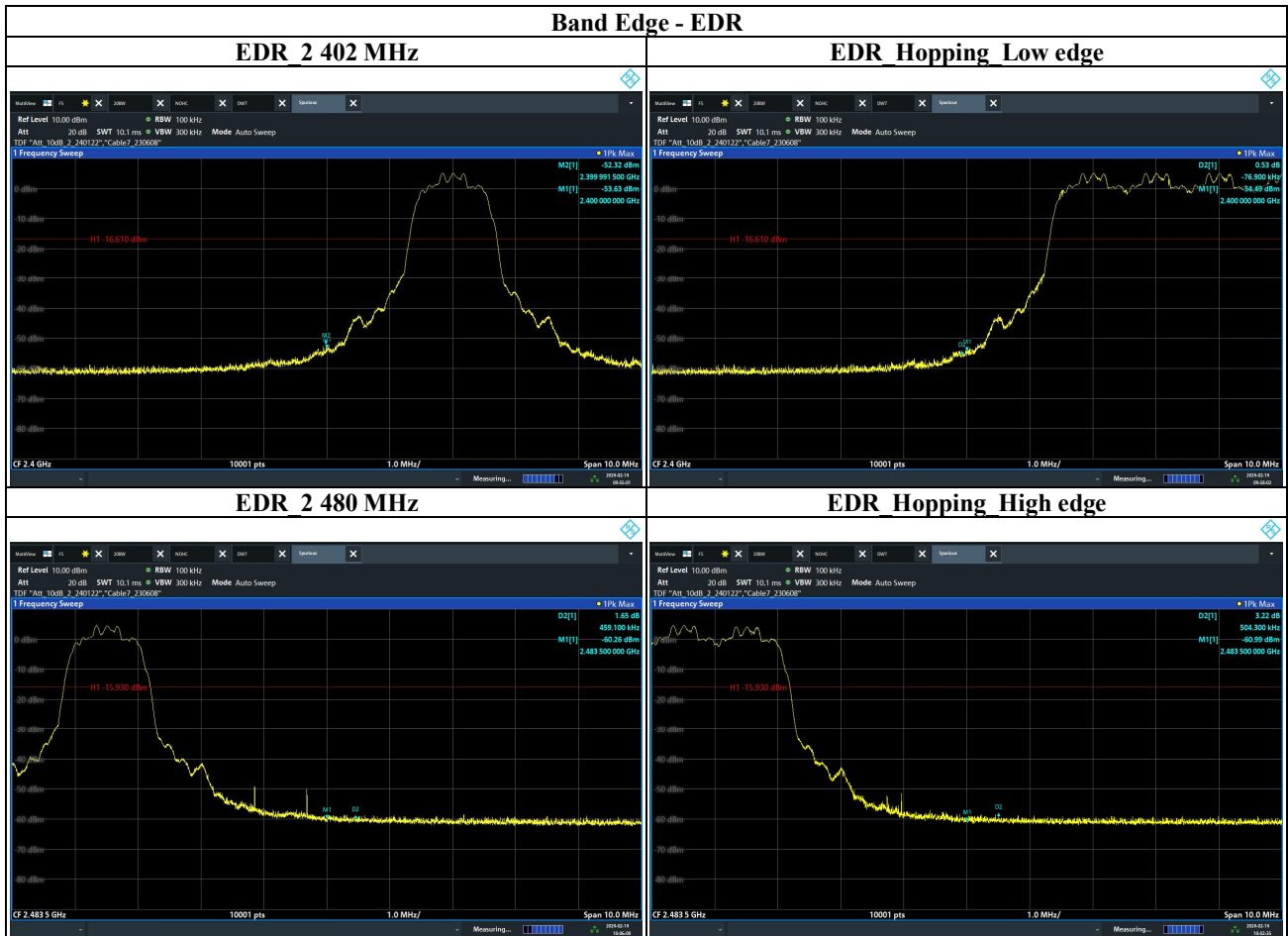
KIEL2403-YW03401-R01

Test Plot of Conducted Spurious Emissions



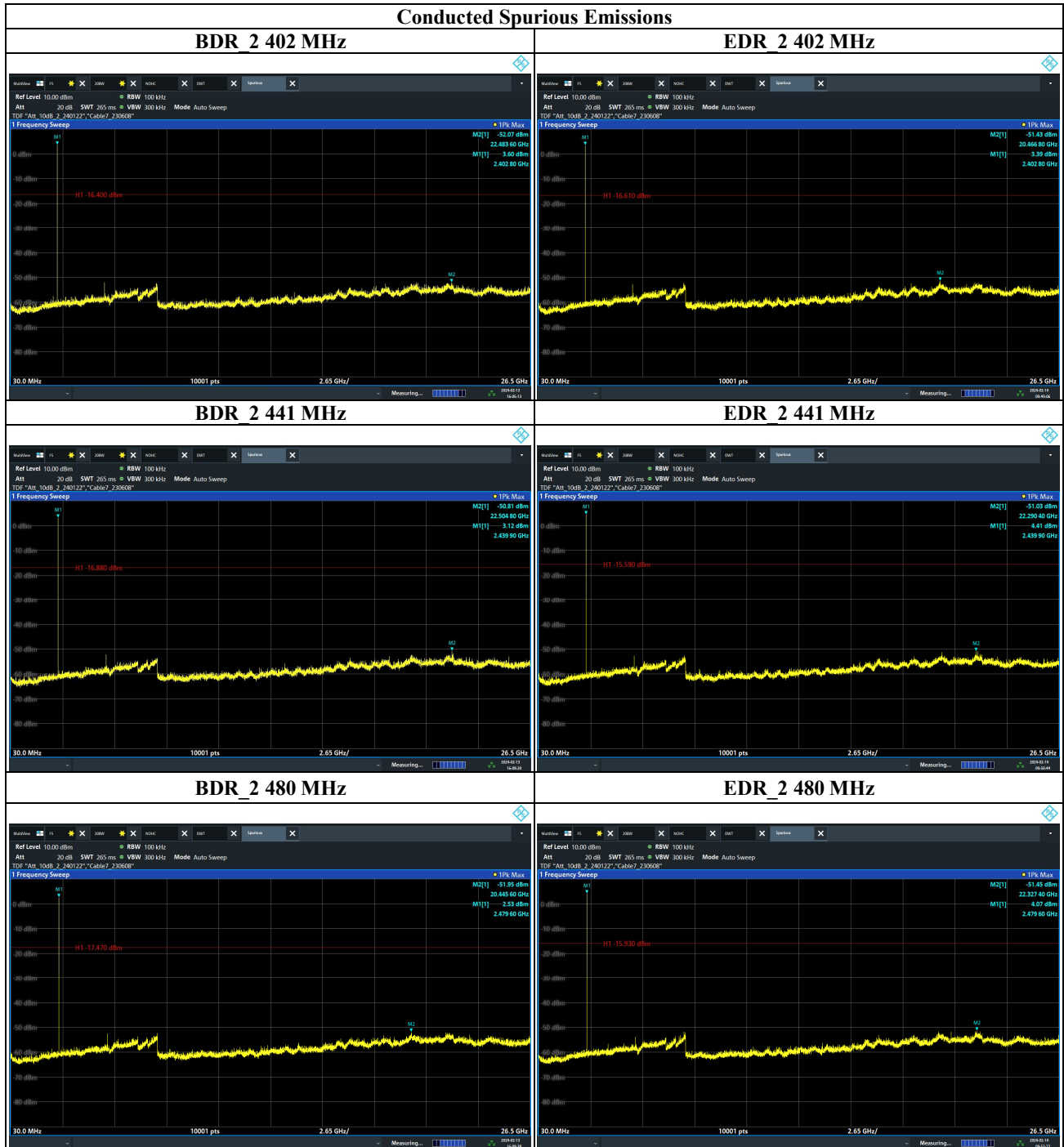


KIEL2403-YW03401-R01





KIEL2403-YW03401-R01



6.8 AC Conducted Emissionss (150 kHz to 30 MHz)

6.8.1 Regulation

§15.207(a) : Except as shown in paragraphs (b) and (c) of this section, 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 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

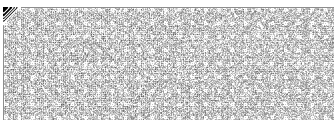
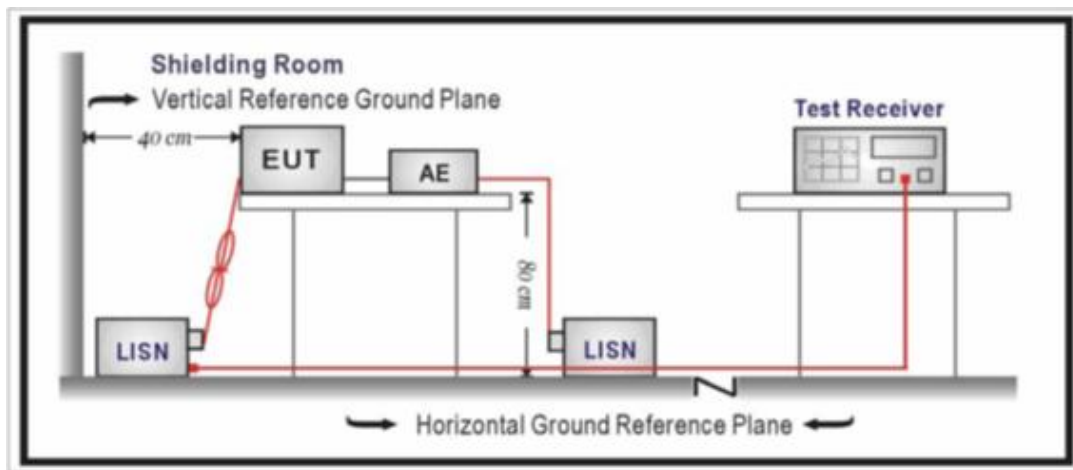
* Decreases with the logarithm of the frequency.

6.8.2 Test Procedure

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm / 50 μ H of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Remark : The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz – 30 MHz.

6.8.3 Test Setup

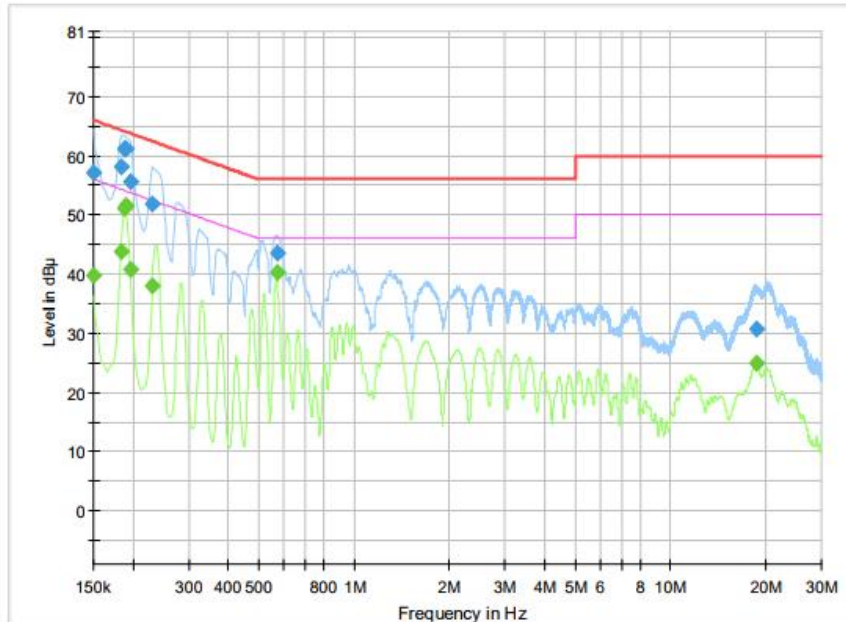




KIEL2403-YW03401-R01

6.8.4 Test Result

Worst Case - EDR_2 402 MHz



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150	---	39.85	56.00	16.15	9.0	N	ON	9.7
0.150	57.03	---	66.00	8.97	9.0	N	ON	9.7
0.184	---	43.75	54.31	10.56	9.0	N	ON	9.9
0.184	58.01	---	64.31	6.30	9.0	N	ON	9.9
0.188	---	51.09	54.11	3.02	9.0	L1	ON	9.9
0.188	61.22	---	64.11	2.90	9.0	L1	ON	9.9
0.191	---	51.58	54.02	2.44	9.0	N	ON	9.9
0.191	61.24	---	64.02	2.77	9.0	N	ON	9.9
0.197	55.66	---	63.73	8.07	9.0	N	ON	9.9
0.197	---	40.70	53.73	13.03	9.0	N	ON	9.9
0.231	51.85	---	62.41	10.56	9.0	N	ON	9.7
0.231	---	38.05	52.41	14.36	9.0	N	ON	9.7
0.571	---	40.17	46.00	5.83	9.0	L1	ON	9.8
0.571	43.54	---	56.00	12.46	9.0	L1	ON	9.8
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
18.647	---	24.92	50.00	25.08	9.0	N	ON	9.9
18.647	30.61	---	60.00	29.39	9.0	N	ON	9.9

Note)

1. Final Value (QP and/or CAV) = Reading Value (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)
2. Margin (QP and/or CAV) = Limit – Final Value (QP and/or CAV)
3. Two graphs measured for both Live (L1) and Neutral (N) of the LISN are combined into one graph.

- END of report -

