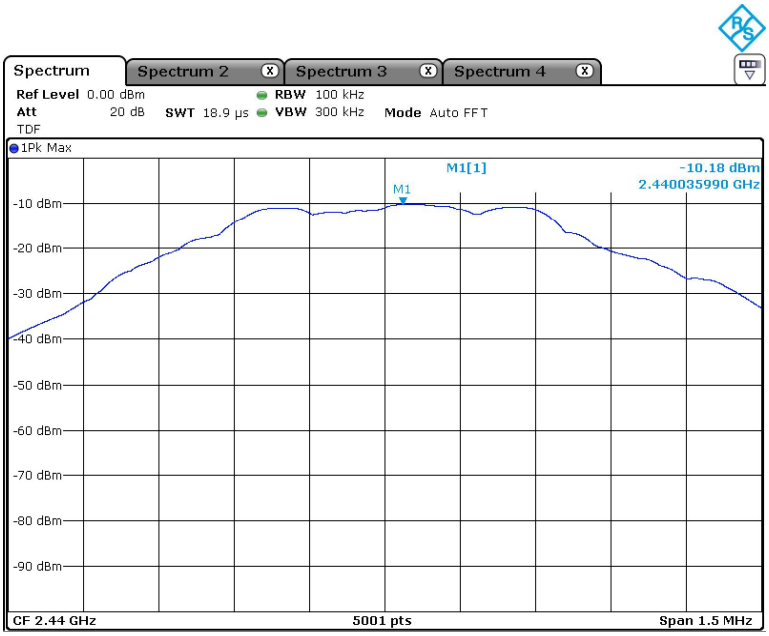
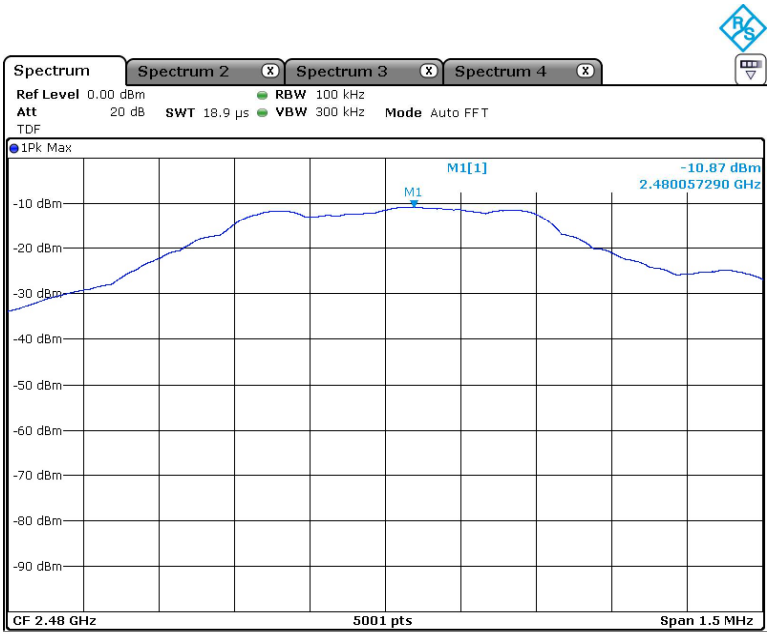
G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

Mid ch_Reference Level

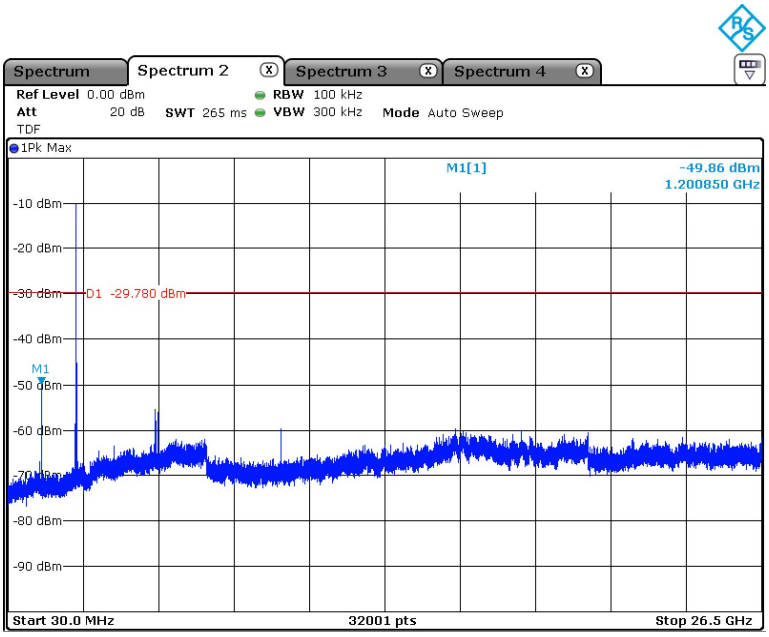


High ch_Power Spectral Density

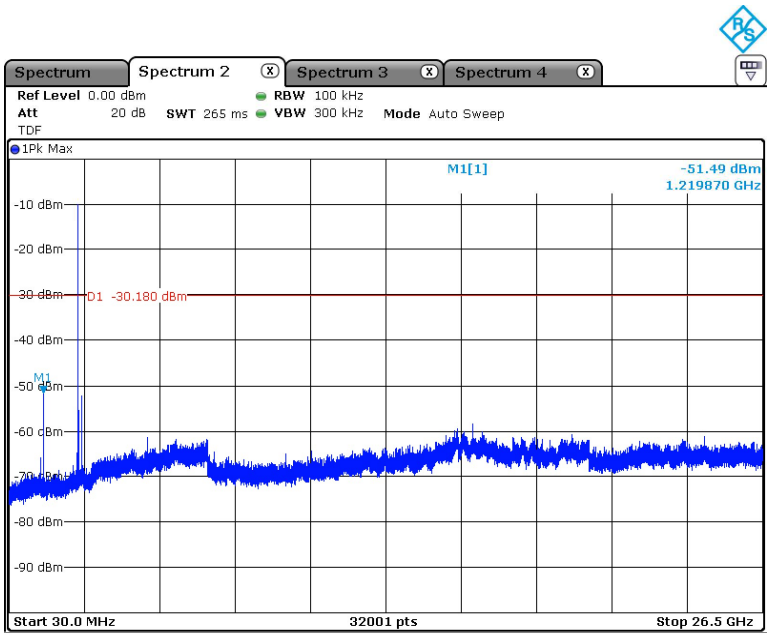


G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

Low ch_Conducted Spurious Emission

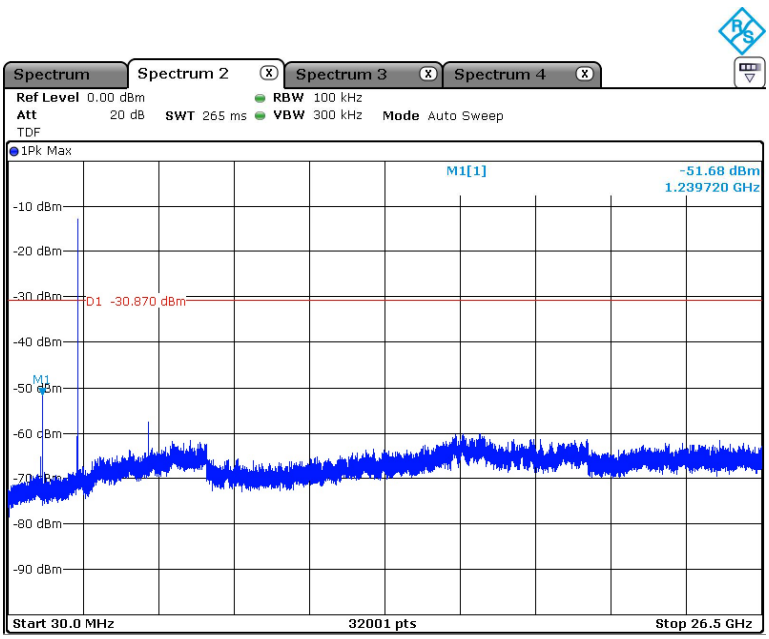


Mid ch_Conducted Spurious Emission



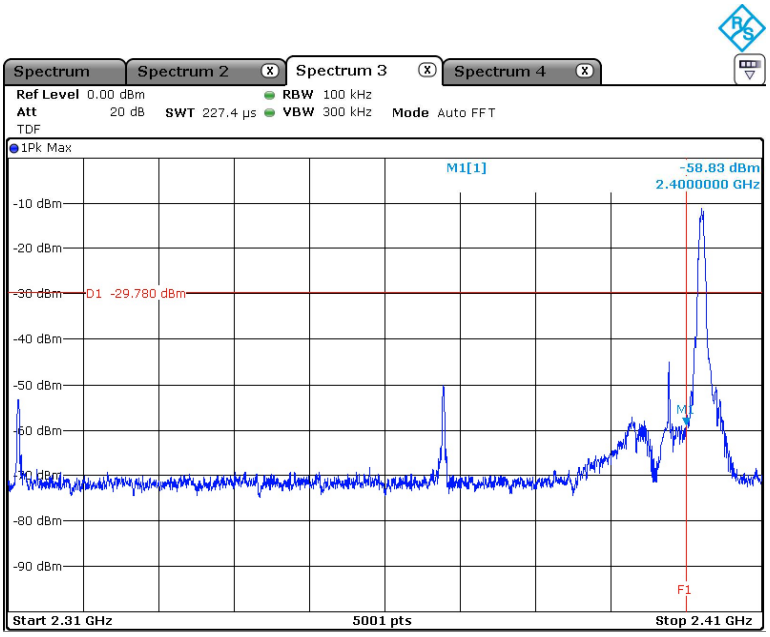
G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

High ch_Conducted Spurious Emission

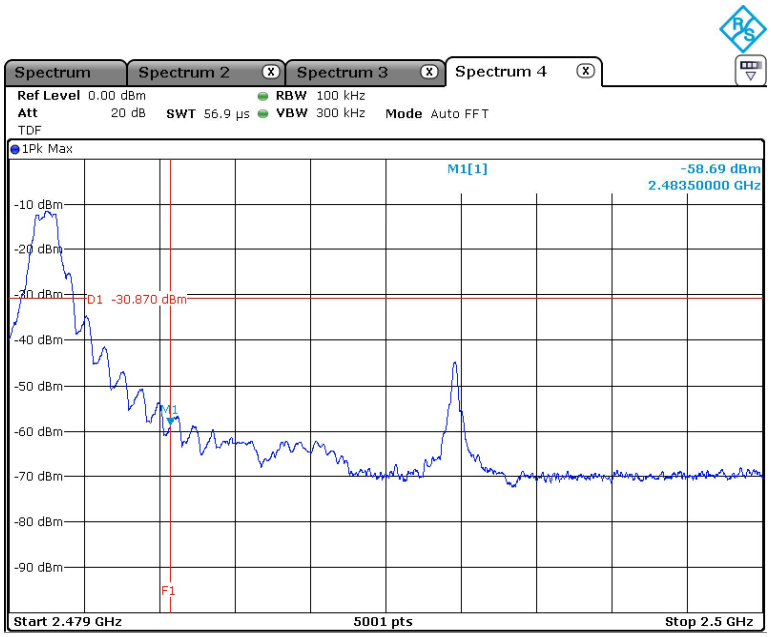


G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

Low ch_Band Edge



High ch_Band Edge



G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

4.5 Radiated Spurious Emission

4.5.1 Test procedure

ANSI C63.10-2013 Clause 11.11, 11.12

4.5.2 Limit

§15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

§15.209 Radiated emission limits; general requirements.(a)

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

§15.205 Restricted bands of operation.(a),(b)

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
[1] 0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	([2])
13.36–13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz.

[2] Above 38.6

Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.

G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

4.5.3 Test data

Result : Pass

- Below 30 MHz_Low ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
It was not found any emissions peaks found from the EUT.								

- Below 30 MHz_Mid ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
It was not found any emissions peaks found from the EUT.								

- Below 30 MHz_High ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
It was not found any emissions peaks found from the EUT.								

G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

- 30 MHz ~ 1 GHz_Low ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
43.97	33.15	QP	H	-23.30	9.85	40.00	30.15	
50.37	32.54	QP	V	-22.90	9.64	40.00	30.36	
562.53	35.09	QP	V	-15.60	19.49	46.00	26.51	
920.17	23.94	QP	H	-9.90	14.04	46.00	31.96	

- 30 MHz ~ 1 GHz_Mid ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
45.52	34.18	QP	V	-23.10	11.08	40.00	28.92	
359.99	30.69	QP	H	-20.10	10.59	40.00	29.41	
562.53	34.98	QP	V	-15.60	19.38	46.00	26.62	
784.56	23.96	QP	V	-12.00	11.96	46.00	34.04	

- 30 MHz ~ 1 GHz_High ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
44.07	35.78	QP	V	-23.30	12.48	40.00	27.52	
287.92	36.03	QP	H	-22.00	14.03	40.00	25.97	
562.53	34.54	QP	V	-15.60	18.94	40.00	21.06	
860.81	23.76	QP	V	-10.40	13.36	46.00	32.64	

G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

- 1 GHz Above_Low ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
2313.00	45.71	PK	H	-10.90	34.81	74.00	39.19	Restricted band
	32.27	AVG	H		21.37	54.00	32.63	
2489.00	46.78	PK	H	-10.20	36.58	74.00	37.42	Restricted band
	33.02	AVG	H		22.82	54.00	31.18	
4804.00	45.34	PK	H	-1.70	43.64	74.00	30.36	2nd Harmonic
	33.58	AVG	H		31.88	54.00	22.12	
7206.00	39.66	PK	H	3.00	42.66	74.00	31.34	3rd Harmonic
	25.92	AVG	H		28.92	54.00	25.08	
9609.60	42.14	PK	H	5.50	47.64	74.00	26.36	5th Harmonic
	27.91	AVG	H		33.41	54.00	20.59	

- 1 GHz Above_Mid ch

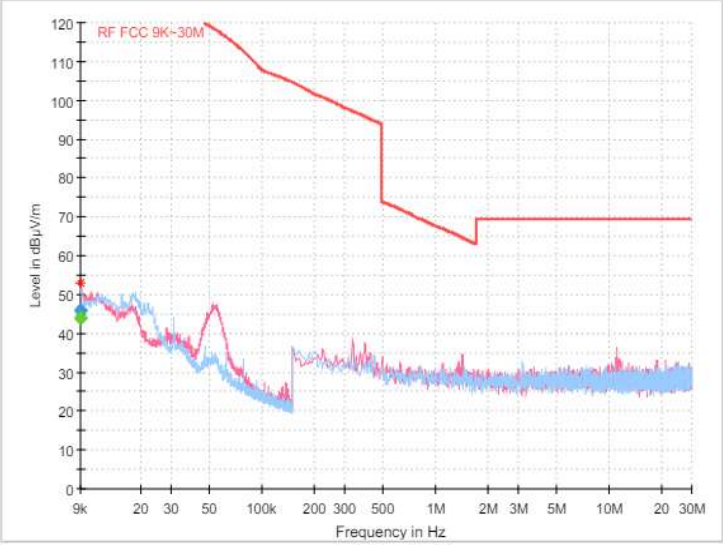
Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
2385.50	45.53	PK	V	-10.70	34.83	74.00	39.17	Restricted band
	32.53	AVG	V		21.83	54.00	32.17	
2493.00	50.57	PK	H	-10.20	40.37	74.00	33.63	Restricted band
	33.32	AVG	H		23.12	54.00	30.88	
4880.50	46.67	PK	V	-1.60	45.07	74.00	28.93	2nd Harmonic
	34.45	AVG	V		32.85	54.00	21.15	
7320.00	40.25	PK	H	2.70	42.95	74.00	31.05	3rd Harmonic
	26.81	AVG	H		29.51	54.00	24.49	
9763.20	38.24	PK	H	6.40	44.64	74.00	29.36	4th Harmonic
	24.78	AVG	H		31.18	54.00	22.82	

- 1 GHz Above_High ch

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Note
2368.00	46.16	PK	V	-10.80	35.36	74.00	38.64	Restricted band
	32.67	AVG	V		21.87	54.00	32.13	
2493.50	52.01	PK	V	-10.20	41.81	74.00	32.19	Restricted band
	33.47	AVG	V		23.27	54.00	30.73	
4960.00	47.60	PK	V	-1.50	46.10	74.00	27.90	2nd Harmonic
	37.92	AVG	V		36.42	54.00	17.58	
7442.40	39.35	PK	H	2.50	41.85	74.00	32.15	3rd Harmonic
	25.93	AVG	H		28.43	54.00	25.57	
9961.20	37.68	PK	V	5.60	43.28	74.00	30.72	4th Harmonic
	23.89	AVG	V		29.49	54.00	24.51	

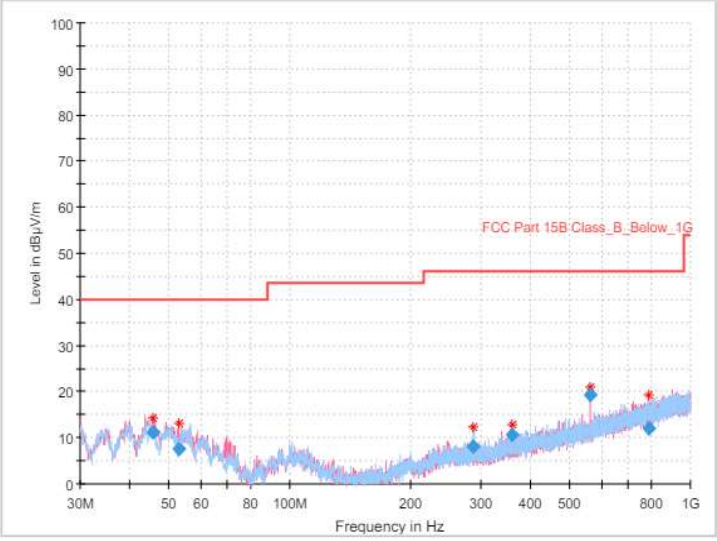
G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

Below 30 MHz_Mid ch



*Since there are no radiated emissions close to the limit,
Only plots from the channel with the highest output power are listed.

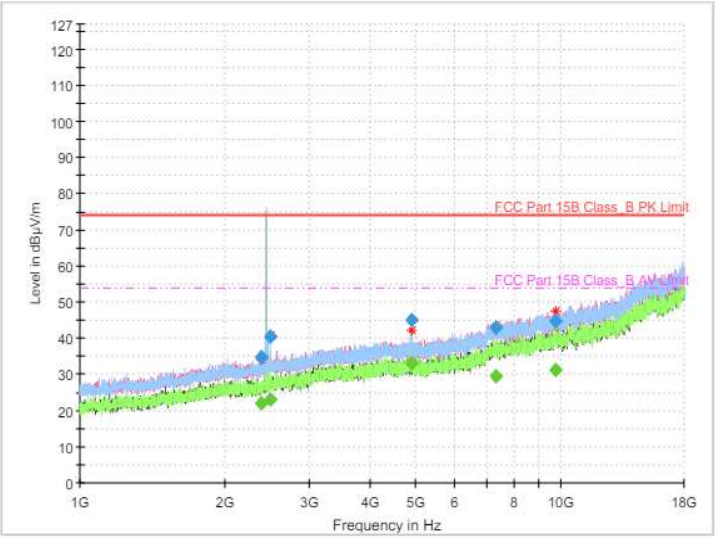
Below 1 GHz_Mid ch



*Since there are no radiated emissions close to the limit,
Only plots from the channel with the highest output power are listed.

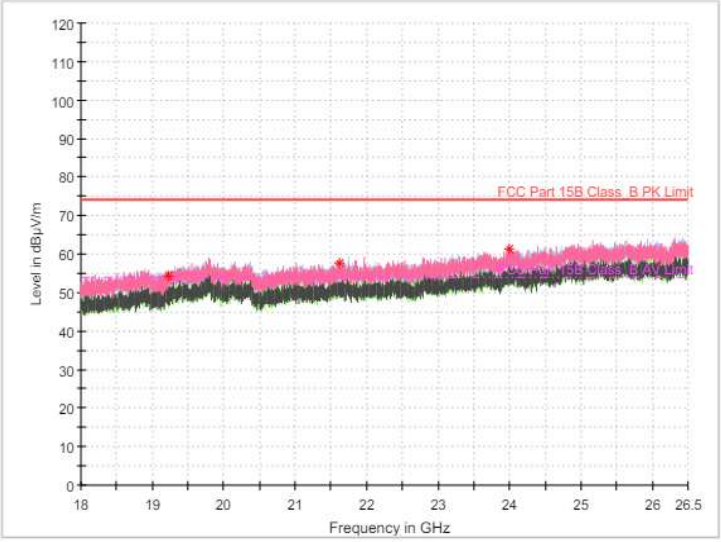
G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

Above 1 GHz (1 GHz ~ 18 GHz)_Mid ch



*Since there are no radiated emissions close to the limit,
Only plots from the channel with the highest output power are listed.

Above 1 GHz (18 GHz ~ 26.5 GHz)_Mid ch



*Since there are no radiated emissions close to the limit,
Only plots from the channel with the highest output power are listed.

G4B(www.g4b.go.kr)진위확인코드 : PbHKoPxDFL4=

5. Used equipment

	Description	Model Name	Manufacturer	Serial Number	Next Cal
1	SIGNAL ANALYZER	FSV40	ROHDE & SCHWARZ	101455	2024-03-03 (1Y)
2	DC BLOCK	PDCB-00012650 -SMSF-4	PSATEK INC.	-	2024-05-02 (1Y)
3	BI-Log ANTENNA	VULB 9162	SCHWARZBECK	120	2024-12-26 (1Y)
4	SIGNAL CONDITIONING UNIT	SCU 08	ROHDE & SCHWARZ	100746	2024-04-03 (1Y)
5	LOOP ANTENNA	HFH2-Z2	ROHDE & SCHWARZ	100271	2024-04-03 (2Y)
6	EMI TEST RECEIVER	ESR26	ROHDE & SCHWARZ	101462	2024-04-04 (1Y)
7	DOUBLE RIDGED HORN ANTENNA	HF907	ROHDE & SCHWARZ	102556	2024-08-04 (1Y)
8	SIGNAL CONDITIONING UNIT	SCU 18	ROHDE & SCHWARZ	102342	2024-04-03 (1Y)
9	EMI TEST RECEIVER	ESR26	ROHDE & SCHWARZ	101461	2024-04-04 (1Y)
11	PREAMPLIFIER	AMF-4F-18265 -35-8P-1	MITEQ	771846	2024-03-07 (1Y)
12	HORN ANTENNA	LB-42-10-C-KF	A-INFOMW	J202024625	2024-03-07 (1Y)

- END OF REPORT.