TEST REPORT

Part 15 Subpart C 15.247

Equipment under test	Flat Panel Digital X-ray Detector
Model name	EXT 1824G
Variant Model name	Scansilc 1824 EOD
FCC ID	RNHEXT1824G
Applicant	DRTECH Corporation
Manufacturer	DRTECH Corporation
Date of test(s)	2020.09.01. ~ 2020.09.18
Date of issue	2020.10.12

Issued to
DRTECH Corporation
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Test and report completed by :	**Report approval by :**
	
Young-Jun, Cho Test engineer	Young-Jin, Lee Technical manager

Revision history

Revision	Date of issue	Test report No.	Description
-	2020.10.12	KES-RF1-20T0191	Initial

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1. General information

Applicant:	DRTECH Corporation
Applicant address:	Suite No.1, 1Floor / Suite No.2 3Floor, 29, Dunchon-daero 541 beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do, 13216, South Korea
Test site:	KES Co., Ltd.
Test site address:	3701, 40, Simin-daero 365beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea 473-29, Gayeo-ro, Yeoju-si, Gyeonggi-do, Korea
Test Facility	FCC Accreditation Designation No.: KR0100, Registration No.: 444148
FCC rule part(s):	15.247
FCC ID:	RNHEXT1824G
Test device serial No.:	☒ Production ☐ Pre-production ☐ Engineering

1.1. EUT description

Equipment under test	Flat Panel Digital X-ray Detector	
Frequency range &	**2 402 ㎒ ~ 2 480 ㎒ (LE) : 40 ch**	
Number of channels	2 412 ㎒ ~ 2 462 ㎒ (802.11b/g/n_HT20) : 11 ch	
	2 422 ㎒ ~ 2 452 ㎒ (802.11n_HT40) : 7 ch	
	UNII-1	5 180 ㎒ ~ 5 240 ㎒ (802.11a/n_HT20) : 4 ch
		5 190 ㎒ ~ 5 230 ㎒ (802.11n_HT40) : 2 ch
	UNII-2A	5 260 ㎒ ~ 5 320 ㎒ (802.11a/n_HT20) : 4 ch
		5 270 ㎒ ~ 5 310 ㎒ (802.11n_HT40) : 2 ch
	UNII-2C	5 500 ㎒ ~ 5 700 ㎒ (802.11a/n_HT20) : 11 ch
		5 510 ㎒ ~ 5 670 ㎒ (802.11n_HT40) : 5 ch
	UNII-3	5 745 ㎒ ~ 5 825 ㎒ (802.11a/n_HT20) : 5 ch
		5 755 ㎒ ~ 5 795 ㎒ (802.11n_HT40) : 2 ch
Model:	EXT 1824G	
Variant Model name	Scansilc 1824 EOD	
Modulation technique	WIFI : DSSS, OFDM, BT : GFSK	
Antenna specification		
Bluetooth antenna	2.4 ㎓ Antenna type : PCB antenna,	Peak gain : -0.23 ㏈i
WLAN antenna	2.4 ㎓ Antenna type : PCB antenna,	Peak gain : -5.6 ㏈i
ANT0 (Top antenna)	5 ㎓ Antenna type : : PCB antenna,	Peak gain(UNII-1) : 0.7 ㏈i
		Peak gain(UNII-2A) : 1.7 ㏈i
		Peak gain(UNII-2C) : -0.6 ㏈i
		Peak gain(UNII-3) : 0.5 ㏈i
WLAN antenna	2.4 ㎓ Antenna type : PCB antenna,	Peak gain : -3.6 ㏈i
ANT1 (Side antenna)	5 ㎓ Antenna type : : PCB antenna,	Peak gain(UNII-1) : -0.4 ㏈i
		Peak gain(UNII-2A) : -0.4 ㏈i
		Peak gain(UNII-2C) : -1.2 ㏈i
		Peak gain(UNII-3) : -1.6 ㏈i
Power source	AC 120 V (AC/DC adaptor output 12 V)	
H/W version	1. EXT1824_BATTERY_BD_VER0.2 2. EXT1824_CONNECTION_BD_VER0.2 3. EXT1824_GATE_BD_VER0.1A 4. EXT1824_LED_BD_VER0.2 5. EXT1824_SYSTEM_BD_VER0.2 6. 2430NDT_XRAY_FPCB_VER0.1 7. 2430NDT_DATA_FPCB_VER0.2	
S/W version	EXT_1824G_SCA_HW0.01.01_V1_SW0.0.03_202004291	

1.2. Test configuration

The **DRTECH Corporation // EXT 1824G //FCC ID: RNHEXT1824G** was tested according to the specification of EUT, the EUT must comply with following standards and KDB documents.

FCC Part 15.247
KDB 558074 D01 v05 r02
ANSI C63.10-2013

1.3. Device modifications

N/A

1.4. Frequency/channel operations

Ch.	Frequency (㎒)	Rate(Mbps)
00	2402	LE : 1 Mbps
. .	. .	. .
20	2442	LE : 1 Mbps
. .	. .	. .
39	2480	LE : 1 Mbps

1.5. Accessory information

Equipment	Manufacturer	Model	Serial No.	Power source
-	-	-	-	-

1.6. Information about Variant Model name

Model name	Remark
EXT 1824G	There are no external or internal changes, and it is for the purpose of adding a model name.
Scansilc 1824 EOD	

1.7. Antenna information

Mode	SISO			MIMO
	Antenna 0	Antenna 1	Antenna 2	Antenna 1 + 2
LE	✔	×	×	×
802.11b 802.11g 802.11n_HT20 802.11n_HT40	×	×	✔	×
802.11a 802.11an_HT20 802.11an_HT40	×	×	×	✔

✔ = Support; × = Not support

Bluetooth Antenna Model : -

Ant0 Gain (dBi)	Ant1 Gain (dBi)	Note
-0.23	-	2 402 to 2 480 ㎒

WiFi Antenna Model : APDR-600WT (ANT0), APDR-600WS (ANT1),

Ant0 Gain (dBi)	Ant1 Gain (dBi)	Note
-	-3.6	2 412 to 2 472 ㎒
0.7	-0.4	5 180 to 5 240 ㎒
1.7	-0.4	5 260 to 5 320 ㎒
-0.6	-1.2	5 500 to 5 700 ㎒
0.5	-1.6	5 745 to 5 825 ㎒

1.8. Measurement results explanation example

For all conducted test items

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Offset(㏈) = RF cable loss(㏈) + attenuator factor(㏈).
= 1.01 + 10 = 11.01

1.9. Measurement Uncertainty

Test Item		Uncertainty
Uncertainty for Conduction emission test		2.46 ㏈
Uncertainty for Radiation emission test (include Fundamental emission)	Below 1㎓	4.40 ㏈
	Above 1㎓	5.94 ㏈
Note. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

2. Summary of tests

Reference	Test description	Test results
15.247(a)(2)	6 dB bandwidth	N/A(1)
15.247(b)(3)	Output power	N/A(1)
15.247(e)	Power spectral density	N/A(1)
15.205 15.209	Radiated restricted band and emission	Pass
15.247(d)	Conducted spurious emission and band edge	N/A(1)
15.207(a)	AC conducted emissions	Pass

Note :

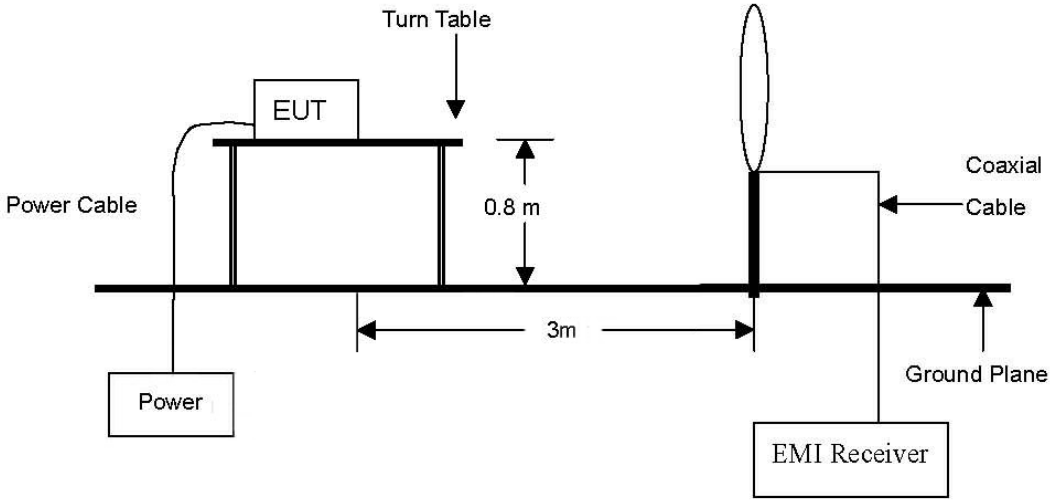
1) Please Refer to the approved Module Report (Report No.: 14U17191-1) for result of existing test items. The output power setting is same as original module and confirmed that RF conducted tests of original report remain valid for this filing.

3. Test results

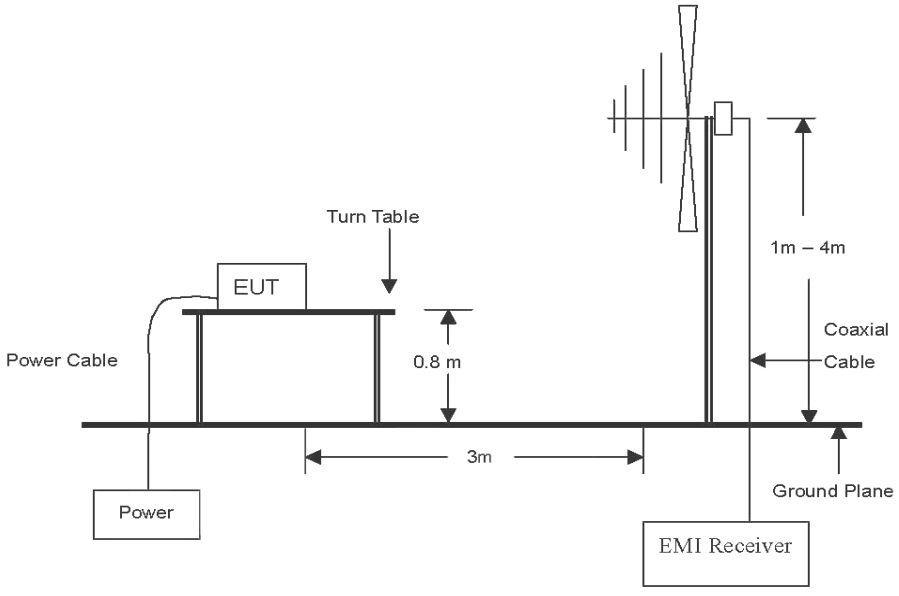
3.1. Radiated restricted band and emissions

Test setup

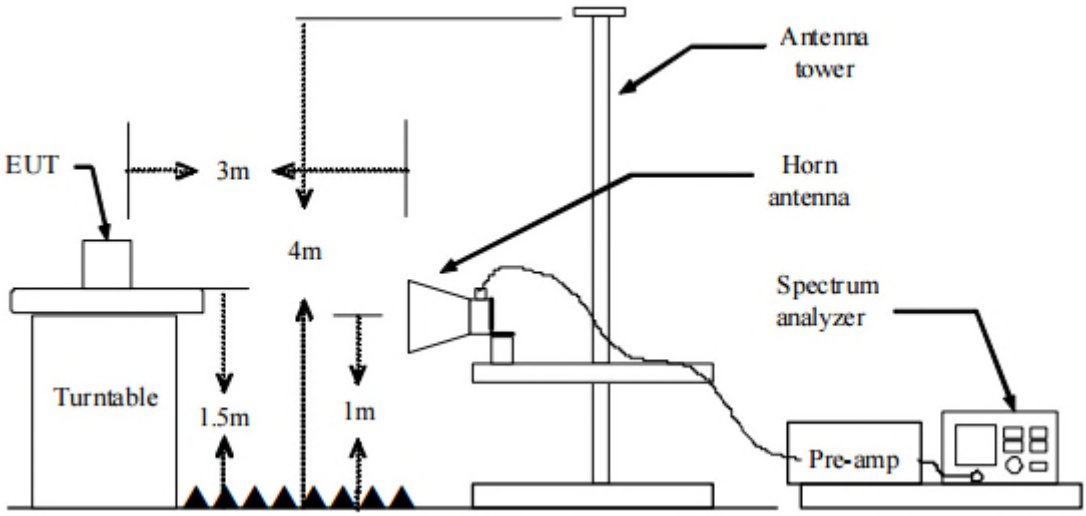
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 ㎑ to 30 ㎒ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓ emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 ㎓ to the tenth harmonic of the highest fundamental frequency or to 40 ㎓ emissions, whichever is lower.



Test procedure

Radiated emissions from the EUT were measured according to the dictates in section 11.11 & 11.12 of ANSI C63.10-2013.

Test procedure below 30 ㎒

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel, ground parallel and perpendicular of the antenna are set to make the measurement. It was determined that **parallel** was worst-case orientation; therefore, all final radiated testing was performed with the EUT in **parallel.**
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum hold mode.

Test procedure above 30 ㎒

1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The antenna is a bi-log antenna, a horn antenna ,and its height are varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5. Spectrum analyzer settings for f < 1 ㎓:
   ① Span = wide enough to fully capture the emission being measured
   ② RBW = 100 ㎑
   ③ VBW ≥ RBW
   ④ Detector = quasi peak
   ⑤ Sweep time = auto
   ⑥ Trace = max hold
6. Spectrum analyzer settings for f ≥1 ㎓: Peak
   ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
   ② RBW = 1 ㎒
   ③ VBW ≥ 3 ㎒
   ④ Detector = peak
   ⑤ Sweep time = auto
   ⑥ Trace = max hold
   ⑦ Trace was allowed to stabilize

7. Spectrum analyzer settings for f ≥1 ㎓: Average
   ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
   ② RBW = 1 ㎒

③ VBW ≥ 3 × RBW

④ Detector = RMS, if span/(# of points in sweep) ≤ (RBW/2). Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.

⑤ Averaging type = power(i.e., RMS)

1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

⑥ Sweep = auto

⑦ Trace = max hold

⑧ Perform a trace average of at least 100 traces.

⑨ A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

1) If power averaging (RMS) mode was used in step ⑤, then the applicable correction factor is 10 log(1/x), where x is the duty cycle.
2) If linear voltage averaging mode was used in step ⑤, then the applicable correction factor is 20 log(1/x), where x is the duty cycle.
3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Note.

1. f <30 ㎒, extrapolation factor of 40 ㏈/decade of distance. $F_d = 40\log(D_m/Ds)$
   f ≥30 ㎒, extrapolation factor of 20 ㏈/decade of distance. $F_d = 20\log(D_m/Ds)$
   Where:
   F_d = Distance factor in ㏈
   D_m = Measurement distance in meters
   D_s = Specification distance in meters
2. Field strength(㏈㎶/m) = Level(㏈㎶) + CF (㏈) + or DCF(㏈)
3. Margin(㏈) = Limit(㏈㎶/m) - Field strength(㏈㎶/m)
4. Emissions below 18 ㎓ were measured at a 3 meter test distance while emissions above 18 ㎓ were measured at a 1 meter test distance with the application of a distance correction factor.
7. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, it was determined that **X orientation** was worst-case orientation; therefore, all final radiated testing was performed with the EUT in **X orientation.**
8. The worst-case emissions are reported however emissions whose levels were not within 20 ㏈ of respective limits were not reported.
9. According to exploratory test no any obvious emission were detected from 9 ㎑ to 30 ㎒. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Limit

According to 15.209(a), for an intentional radiator devices, the general required of field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (㎒)	Distance (Meters)	Radiated (㎶/m)
0.009 ~ 0.490	300	2 400 / F(㎑)
0.490 ~ 1.705	30	24 000 / F(㎑)
1.705 ~ 30.0	30	30
30 ~ 88	3	100**
88 ~ 216	3	150**
216 ~ 960	3	200**
Above 960	3	500

**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 ㎒, 76 ~ 88 ㎒, 174 ~ 216 ㎒ or 470 ~ 806 ㎒. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

Duty cycle

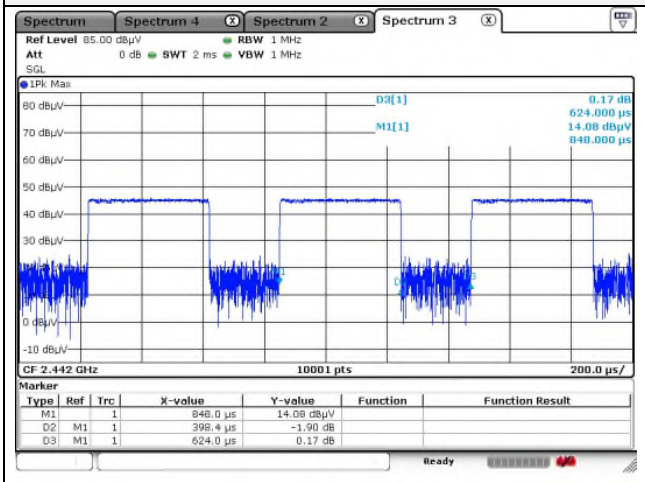
Regarding to KDB 558074 D01_v04, 6.0, the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below.

Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100.

Test mode	T_{on} time (㎳)	Period (㎳)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (㏈)
LE	0.398	0.624	0.638	63.80	1.95

Duty cycle (Linear) = T_{on} time/Period

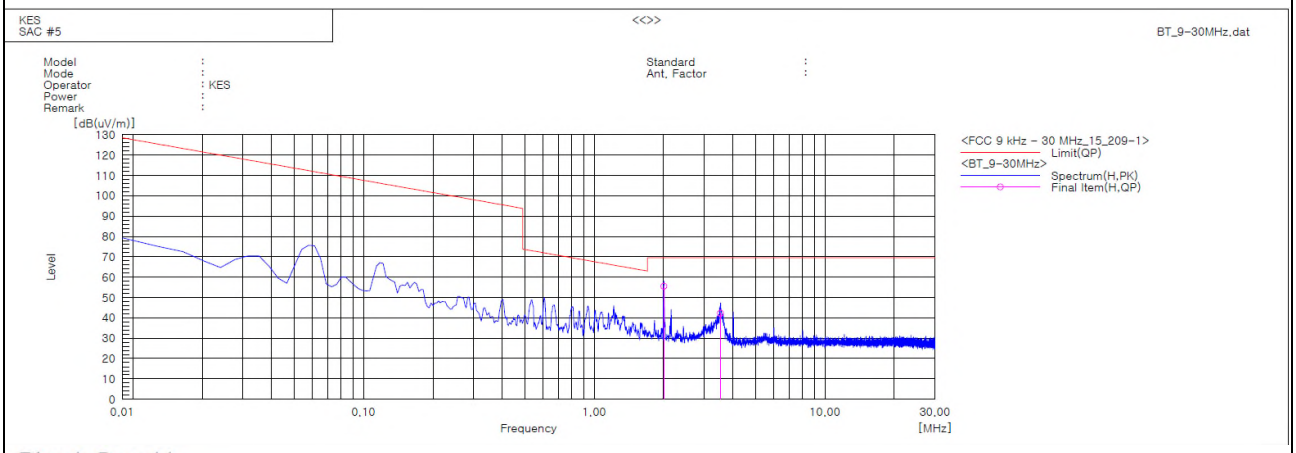
DCF(Duty cycle correction factor (㏈)) = 10log(1/duty cycle)

LE // Middle channel	BLANK
	-

Test results (Below 30 ㎒)

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	39(Worst case)

Horizontal



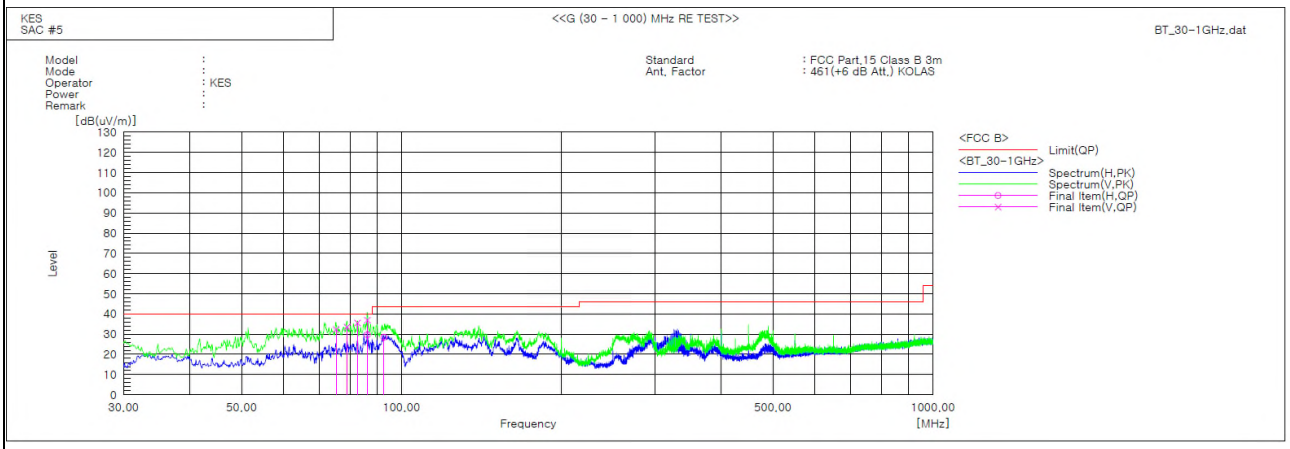
Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	2.003	H	34.8	20.7	55.5	69.5	14.0	100.0	23.7	
2	3.529	H	22.5	19.8	42.3	69.5	27.2	100.0	118.1	

Test results (Below 1 000 ㎒)

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	39(Worst case)

Horizontal // Vertical



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	75.348	V	48.7	-16.4	32.3	40.0	7.7	215.0	45.9	
2	78.985	V	50.9	-17.3	33.6	40.0	6.4	125.0	340.1	
3	82.623	V	53.7	-18.1	35.6	40.0	4.4	132.0	342.7	
4	86.260	V	55.6	-18.6	37.0	40.0	3.0	100.0	6.4	
5	86.260	H	48.3	-18.6	29.7	40.0	10.3	393.0	76.2	
6	92.686	H	47.1	-18.6	28.5	43.5	15.0	400.0	279.5	

Test results (Above 1 000 ㎒)

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	00

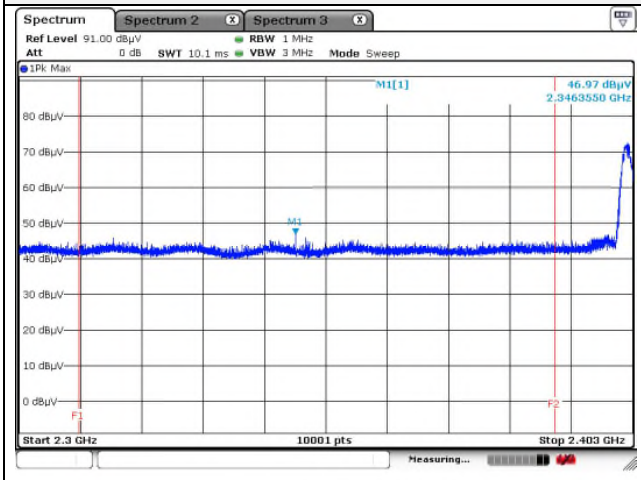
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1043.70	48.07	Peak	H	-11.30	-	36.77	74.00	37.23
1019.90	48.83	Peak	V	-11.32	-	37.51	74.00	36.49

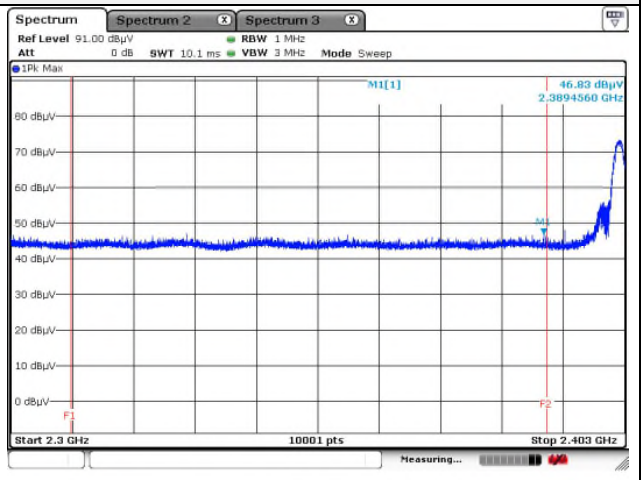
- **Band edge**

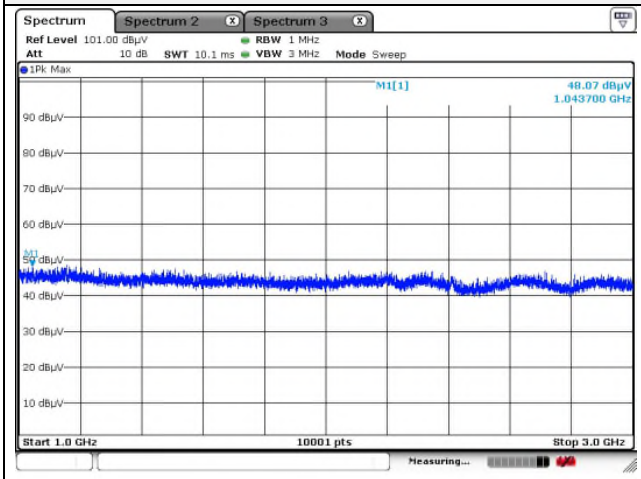
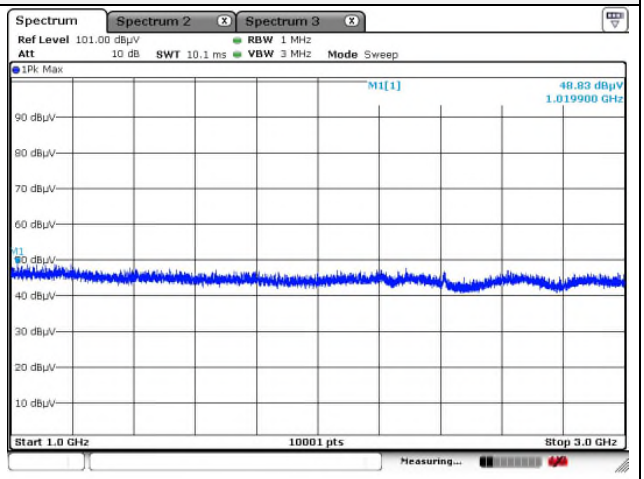
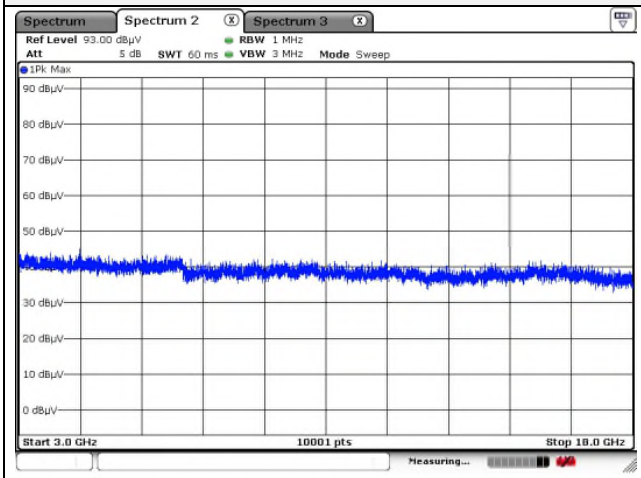
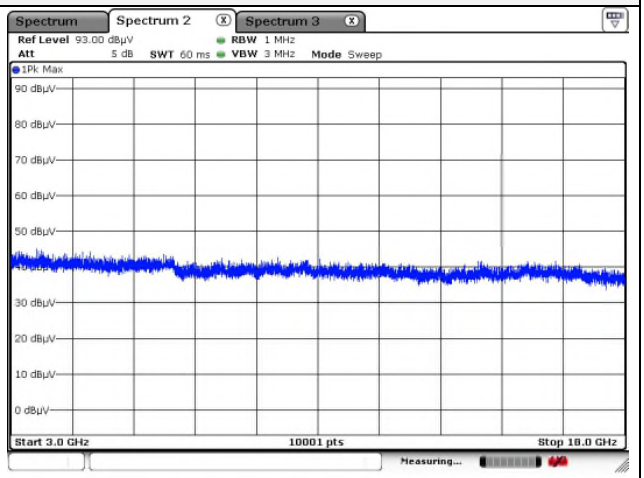
Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
2346.36	46.97	Peak	H	-6.91	-	40.06	74.00	33.94
2389.46	46.83	Peak	V	-7.10	-	39.73	74.00	34.27

Restricted band // Horizontal // Peak



Restricted band // Vertical // Peak



Horizontal // Peak for 1 ㎓ to 3 ㎓	Vertical // Peak for 1 ㎓ to 3 ㎓
	
Horizontal // Peak for 3 ㎓ to 18 ㎓	**Vertical // Peak for 3 ㎓ to 18 ㎓**
	

Note.

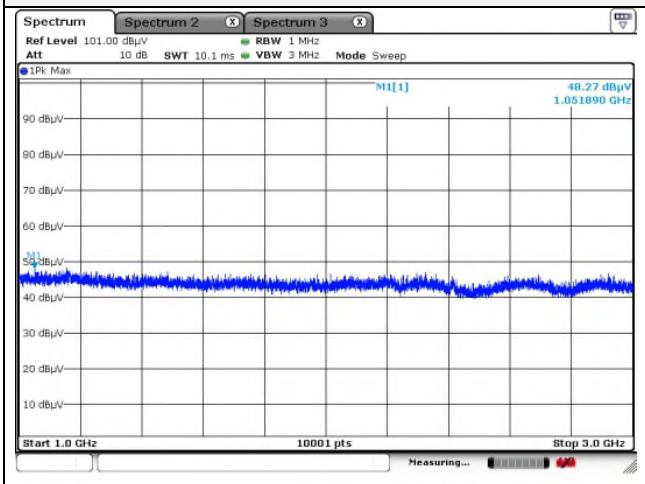
1. No spurious emission were detected above 3 ㎓.
2. Average test would be performed if the peak result were greater than the average limit.

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	20

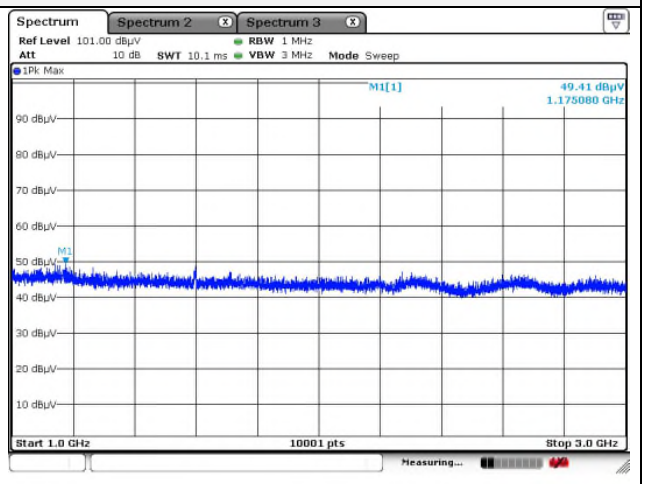
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1051.89	48.27	Peak	H	-11.31	-	36.96	74.00	37.04
1175.08	49.41	Peak	V	-11.25	-	38.16	74.00	35.84

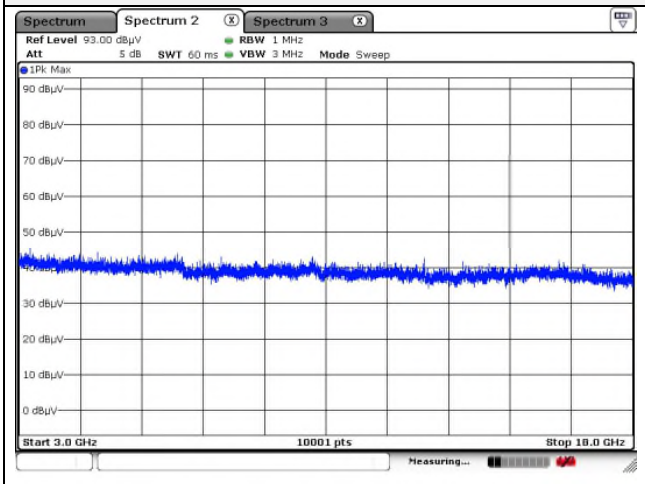
Horizontal // Peak for 1 ㎓ to 3 ㎓



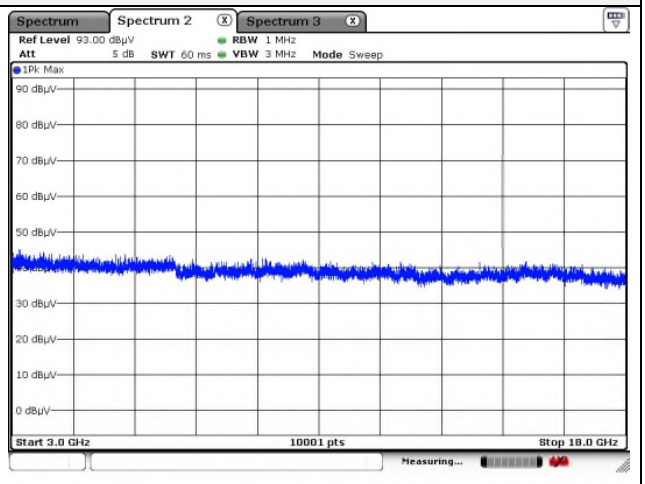
Vertical // Peak for 1 ㎓ to 3 ㎓



Horizontal // Peak for 3 ㎓ to 18 ㎓



Vertical // Peak for 3 ㎓ to 18 ㎓



Note.

1. No spurious emission were detected above 3 ㎓.
2. Average test would be performed if the peak result were greater than the average limit.

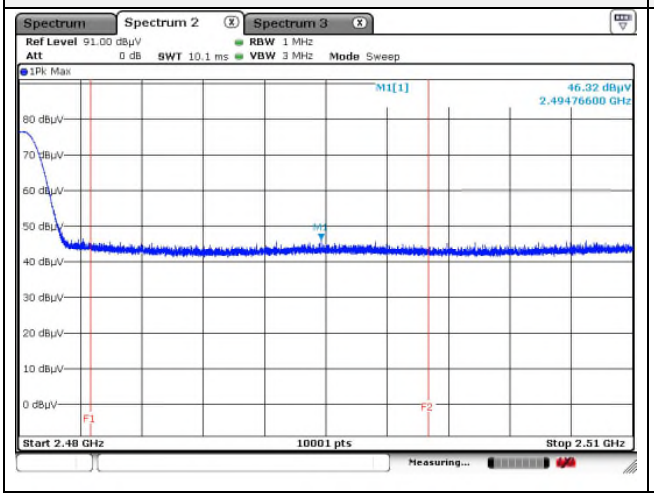
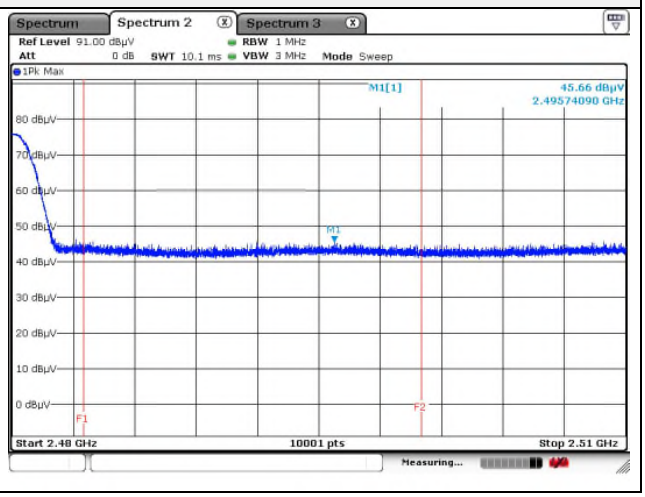
Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	39

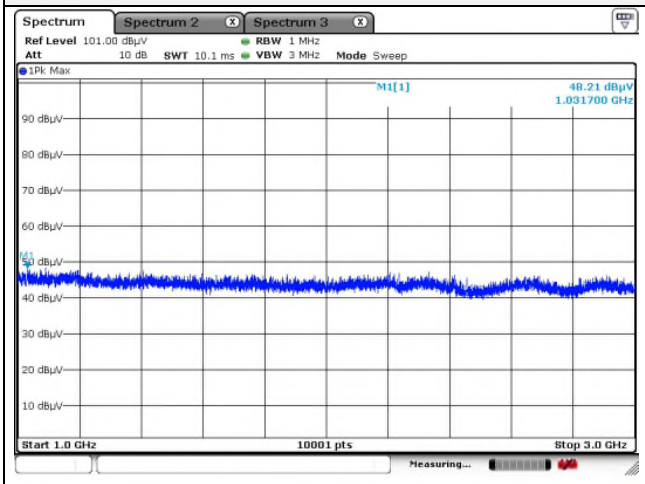
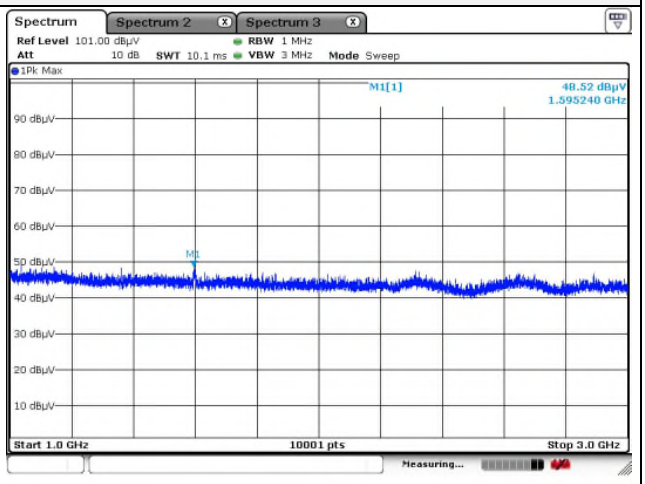
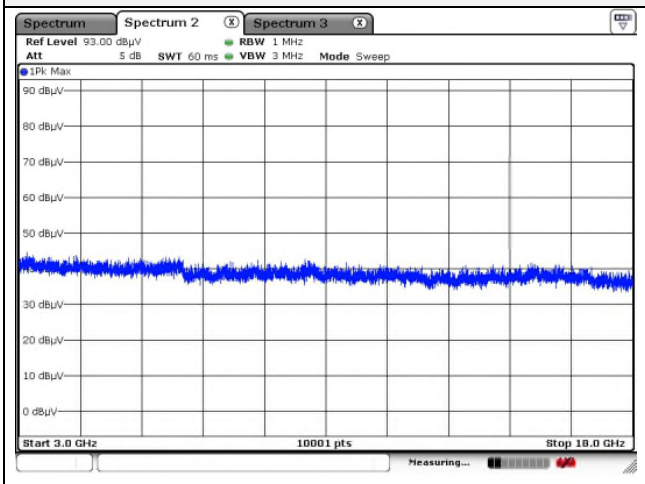
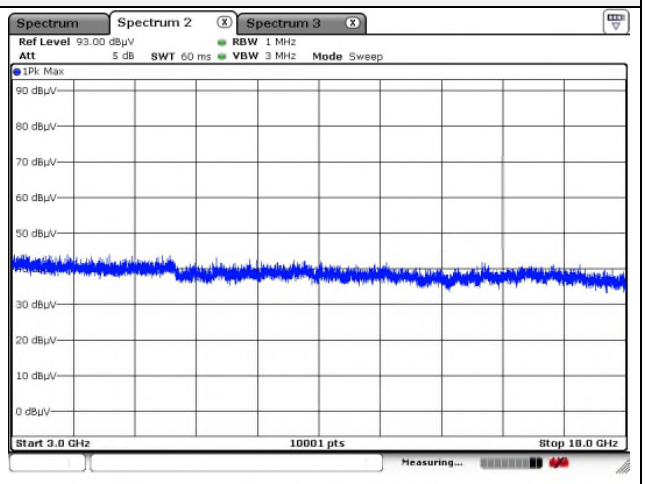
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1031.70	48.21	Peak	H	-11.31	-	36.90	74.00	37.10
1595.24	48.52	Peak	V	-7.60	-	40.92	74.00	33.08

- **Band edge**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
2494.77	46.32	Peak	H	-7.60	-	38.72	74.00	35.28
2495.74	45.66	Peak	V	-7.60	-	38.06	74.00	35.94

Restricted band // Horizontal // Peak	Restricted band // Vertical // Peak
	

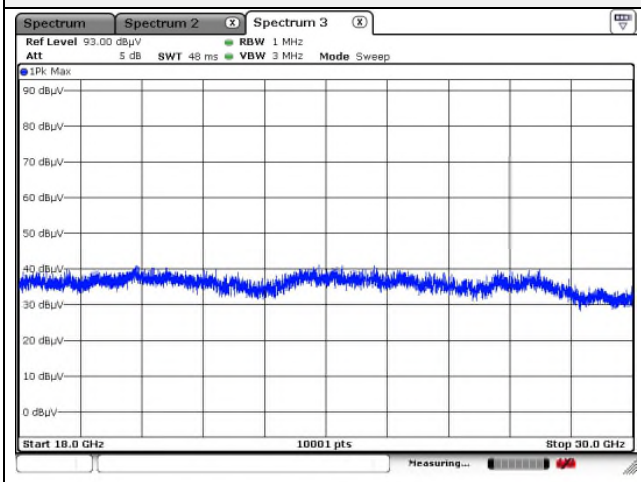
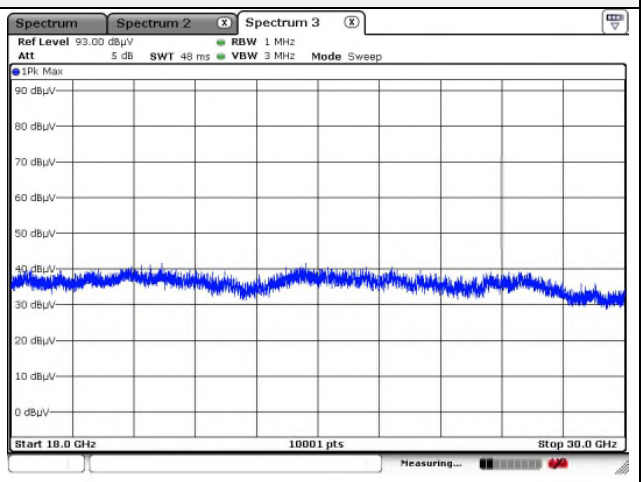
Horizontal // Peak for 1 ㎓ to 3 ㎓	Vertical // Peak for 1 ㎓ to 3 ㎓
	
Horizontal // Peak for 3 ㎓ to 18 ㎓	**Vertical // Peak for 3 ㎓ to 18 ㎓**
	

Note.

1. No spurious emission were detected above 3 ㎓.
2. Average test would be performed if the peak result were greater than the average limit.

Test results (18 ㎓ to 30 ㎓)

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	39(Worst case)

Horizontal	Vertical
	

Note.

1. No spurious emission were detected above 18 ㎓.

Test results (Above 1 000 ㎒)

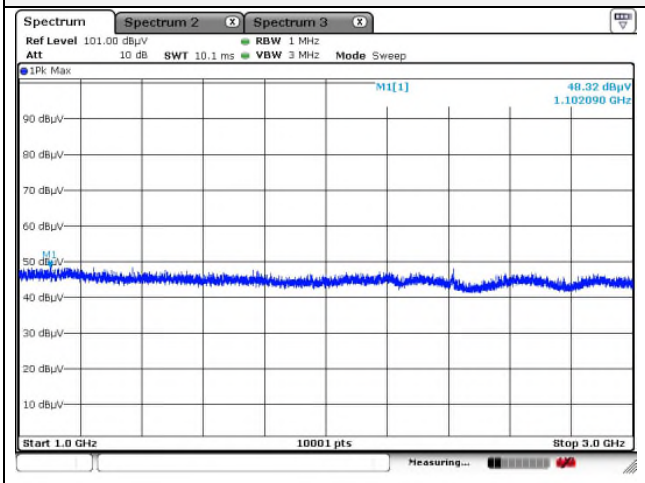
Mode: LE + WLAN

Distance of measurement: 3 meter

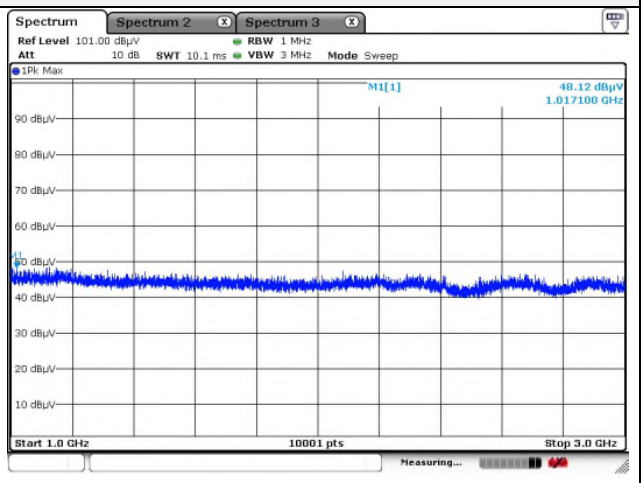
- **Spurious**

Frequency (㎒)	Level (dB㎶)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1150.68	48.80	Peak	H	-11.27	-	37.53	74.00	36.47
1093.89	49.57	Peak	V	-11.28	-	38.29	74.00	35.71

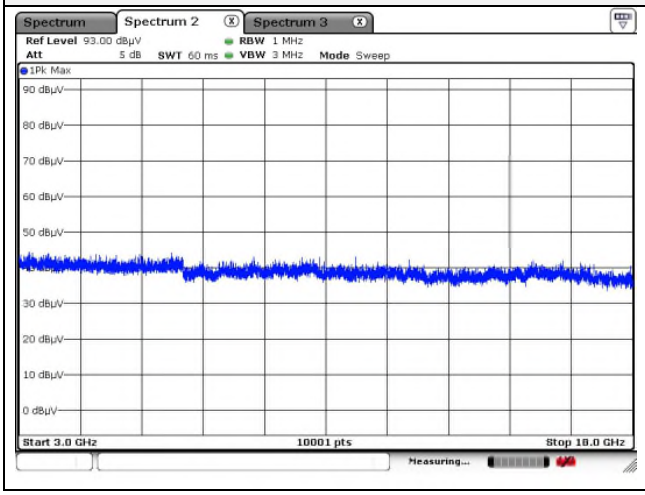
Horizontal // Peak for 1 ㎓ to 3 ㎓



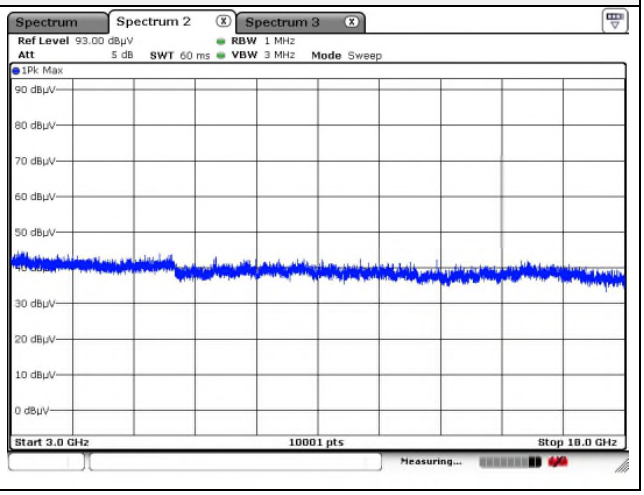
Vertical // Peak for 1 ㎓ to 3 ㎓

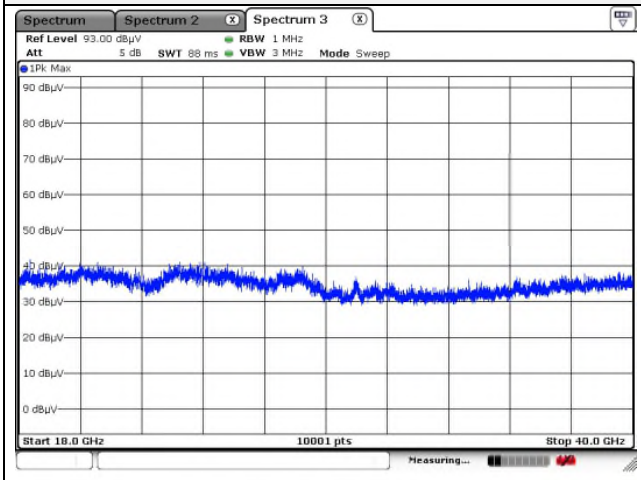
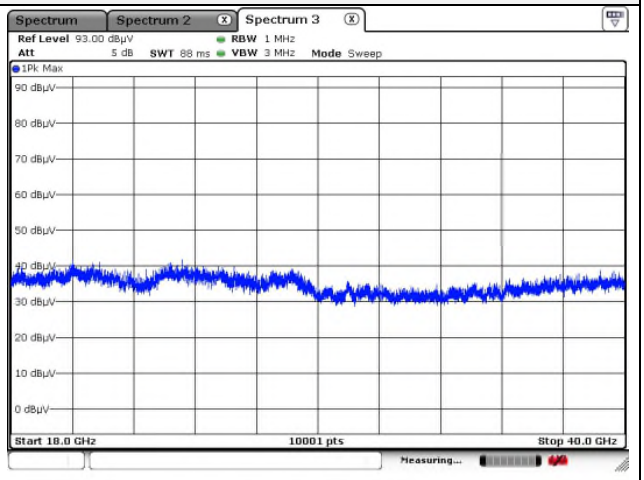


Horizontal // Peak for 3 ㎓ to 18 ㎓



Vertical // Peak for 3 ㎓ to 18 ㎓



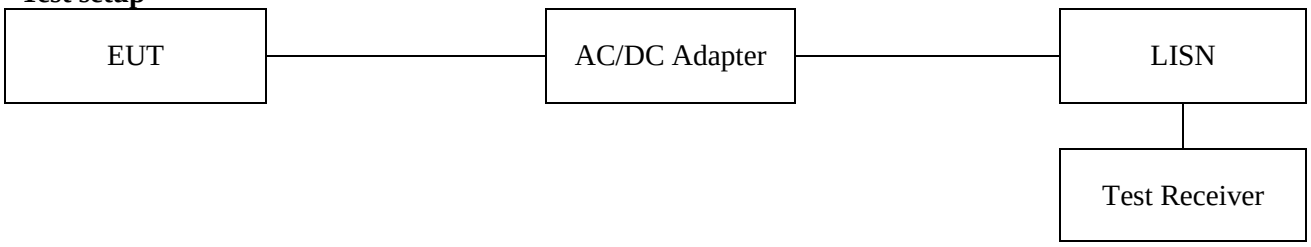
Horizontal	Vertical
	

Note.

1. This product can operate both bluetooth and wlan at the same time, so it additionally performs spurious measurements in the simultaneous operation state.
2. No spurious emission were detected above 3 ㎓.
3. No spurious emission were detected above 18 ㎓.
4. Average test would be performed if the peak result were greater than the average limit.

3.2. AC conducted emissions

Test setup



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 ㎑ to 30 ㎒, shall not exceed the limits in the following table, as measured using a 50uH/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 (㎒)	Conducted limit (dB㎶/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

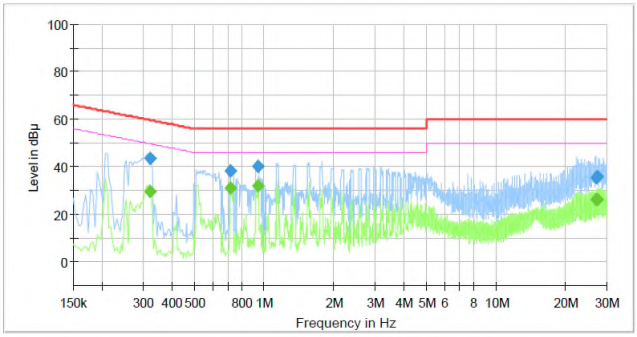
Note:

1. All AC line conducted spurious emission are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and the appropriate frequencies. All data rates and modes were investigated for conducted spurious emission. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.
3. Both Cable loss and LISN factor are included in measurement level(QP Level or AV Level).

Test results

Mode:	LE
Transfer rate:	1 Mbps
Distance of measurement:	3 meter
Channel:	39(Worst case)

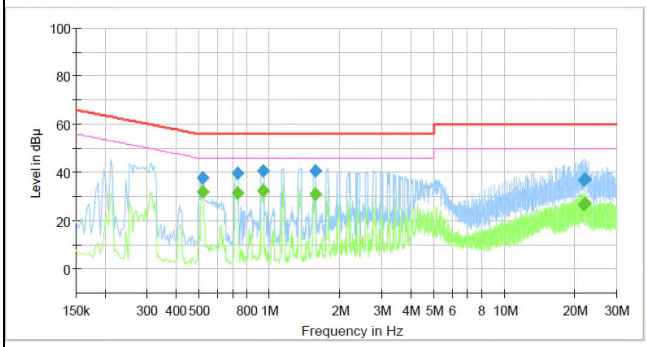
Hot Line



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.322000	---	29.61	49.66	20.05	1000.0	9.000	L1	19.7
0.322000	43.78	---	59.66	15.88	1000.0	9.000	L1	19.7
0.718000	---	30.82	46.00	15.18	1000.0	9.000	L1	20.0
0.718000	38.41	---	56.00	17.59	1000.0	9.000	L1	20.0
0.942000	---	31.86	46.00	14.14	1000.0	9.000	L1	20.2
0.942000	40.12	---	56.00	15.88	1000.0	9.000	L1	20.2
27.158000	---	26.27	50.00	23.73	1000.0	9.000	L1	21.3
27.158000	35.46	---	60.00	24.54	1000.0	9.000	L1	21.3
27.390000	---	26.21	50.00	23.79	1000.0	9.000	L1	21.3
27.390000	35.88	---	60.00	24.12	1000.0	9.000	L1	21.3

Neutral Line



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.522000	---	32.10	46.00	13.90	1000.0	9.000	N	19.8
0.522000	37.60	---	56.00	18.40	1000.0	9.000	N	19.8
0.734000	---	31.67	46.00	14.33	1000.0	9.000	N	20.0
0.734000	39.89	---	56.00	16.11	1000.0	9.000	N	20.0
0.942000	---	32.46	46.00	13.54	1000.0	9.000	N	20.2
0.942000	40.52	---	56.00	15.48	1000.0	9.000	N	20.2
1.570000	---	30.83	46.00	15.17	1000.0	9.000	N	20.3
1.570000	40.77	---	56.00	15.23	1000.0	9.000	N	20.3
21.866000	---	26.85	50.00	23.15	1000.0	9.000	N	21.1
21.866000	36.74	---	60.00	23.26	1000.0	9.000	N	21.1
22.082000	---	26.93	50.00	23.07	1000.0	9.000	N	21.1
22.082000	37.36	---	60.00	22.64	1000.0	9.000	N	21.1

Appendix A. Measurement equipment

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	1 year	2021.04.01
SPECTRUM ANALYZER	R&S	FSV40	101725	1 year	2021.06.22
8360B Series Swept Signal Generator	HP	83630B	3844A00786	1 year	2021.01.15
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2021.05.12
Power Meter	Anritsu	ML2495A	1438001	1 year	2021.05.12
Pulse Power Sensor	Anritsu	MA2411B	1339205	1 year	2021.05.12
DC POWER SUPPLY	SORENSEN	DCS40-75E	1408A02745	1 year	2021.01.15
ATTENUATOR	Mini-Circuits	BW-S10-2W263+	1	1 year	2021.01.17
Loop Antenna	Schwarzbeck	FMZB1513	225	2 years	2021.02.15
BILOG ANTENNA	VULB 9168	SCHWARZBECK	9168-461	2 years	2022.05.26
HORN ANTENNA	A.H.	SAS-571	414	1 years	2021.01.31
BAND REJECT FILTER	MICRO-TRONICS	BRM50702	G272	1 year	2021.01.15
BAND REJECT FILTER	MICRO-TRONICS	BRM50716	G199	1 year	2021.01.15
AMPLIFIER	310N	SONOMA INSTRUMENT	401123	1 year	2021.06.08
PREAMPLIFIER	8449B	AGILENT	8008A01640	1 year	2021.04.01
ATTENUATOR	F04-C1206-01	SRT	20022403	1 year	2021.05.06
EMI Test Receiver	R&S	ESR3	101781	1 year	2021.01.20
EMI Test Receiver	R&S	ESU26	100552	1 year	2021.04.01
Pulse Limiter	R&S	ESH3-Z2	101915	1 year	2021.01.02
LISN	R&S	ENV216	101787	1 year	2021.01.02

Peripheral devices

Device	Manufacturer	Model No.	Serial No.
Notebook computer	LG Electronics Inc.,	15UD590	904QCSF564006
Test Jig Board	N/A	N/A	N/A