EMC TEST REPORT

Test Report No.	:	KES-EM-22T0461
Date of Issue	:	Jun. 15, 2022
Product name	:	Withbecon Scanner
Model/Type No.	:	WBS2201
Variant Model	:	-
Applicant	:	Becon Co Ltd
Applicant Address	:	B2, 7, Seolleung-ro 94-gil, Gangnam-gu, Seoul, South Korea
Manufacturer	:	Becon Co Ltd
Manufacturer Address	:	B2, 7, Seolleung-ro 94-gil, Gangnam-gu, Seoul, South Korea
FCC ID	:	2A69A-WBS2201
Date of Receipt	:	May. 04, 2022
Test date	:	May. 23, 2022 ~ May. 24, 2022
Test Results	:	☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dong Hyun, Won
EMC Test Engineer

Reviewed by

Dong Hun, Jang
EMC Technical Manager

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Jun. 15, 2022	KES-EM-22T0461	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Division	Characteristic
Frequency	Bluetooth 2.4 ㎓ / WLAN 2.4 ㎓
Power	Charge : DC 5 V (Adapter) Operating : DC 3.7 V, 2 500 mAh (Battery)
Weight	123 g
Port	C-Type USB x 1
Size	(67.5 x 30.9 x 104.3) ㎜
Components	EUT x 1, Cradle x 1
Product type	Withbecon Scanner

1.1 Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

☒ AC 120 V, 60 Hz ☒ DC 3.7 V (Battery)

1.2 Variant Model Differences

Not applicable

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
Withbecon Scanner	WBS2201	-	Becon Co Ltd	EUT
Cradle	-	-	-	-

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Adapter	A1401	-	Apple	-
Smartphone	SM-G975N	352676100681346	Samsung Electronics Co., Ltd.	-
Router	A2004plus	-	IpTIME	-
Router Adapter	TY-2007	-	Zioncoin Electronics (Shenzhen) Ltd.	-

1.6 External I/O Cabling

■ Adapter Charge Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
Withbecon Scanner (EUT)	C-Type	Adapter	USB	1.2	U

■ Cradle Charge Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
Withbecon Scanner (EUT)	Charge Port	Cradle (EUT)	Charge Port	-	-
Cradle (EUT)	C-Type	Adapter	USB	1.2	U

■ Operating Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
Withbecon Scanner (EUT)	Wireless	Smartphone	Wireless	-	-
	Wireless	Router	Wireless	-	-
Router	DC Jack	Router Adapter	DC Jack	1.8	U

* Unshielded = U, Shielded = S

1.7 EUT Operating Mode(s)

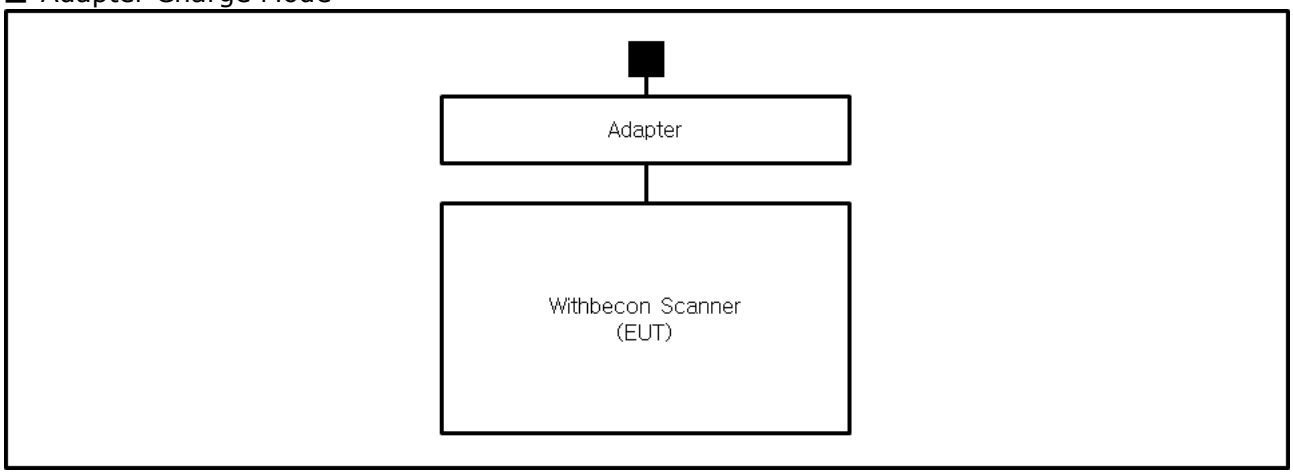
Test mode	operating
Adapter Charge Mode	Checked that the EUT is connected to the Charger. The EUT's LED is on.
Cradle Charge Mode	Checked that the EUT is connected to the Cradle. The EUT's LED and Cradle LED is on.
Operating Mode	Checked the EUT is Operating using Smartphone, the Checked Wireless connection staus through app.

EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
WithBecon	1.0.9	-

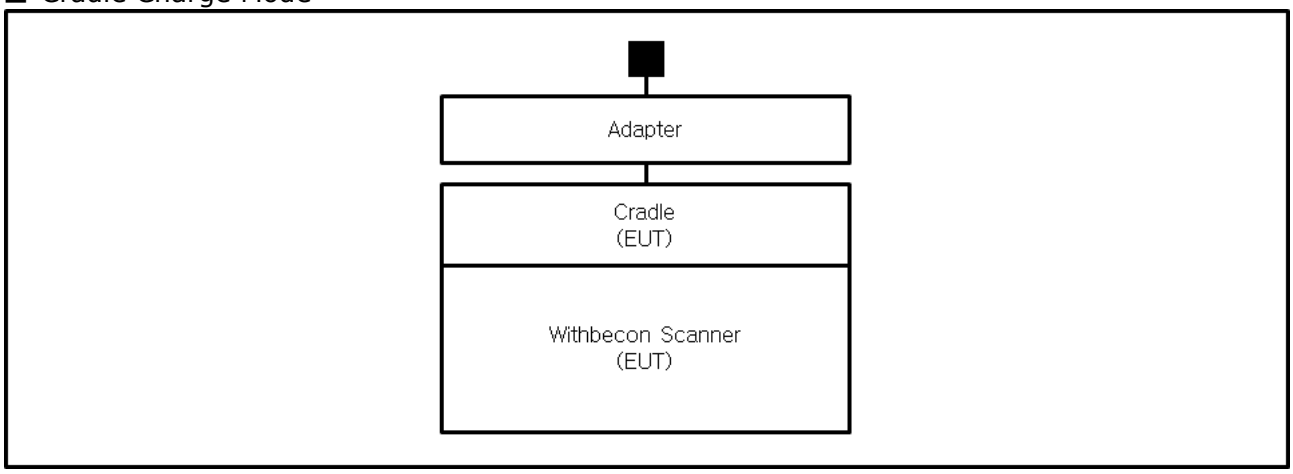
1.8 Configuration

■ AC Main
□ DC Main

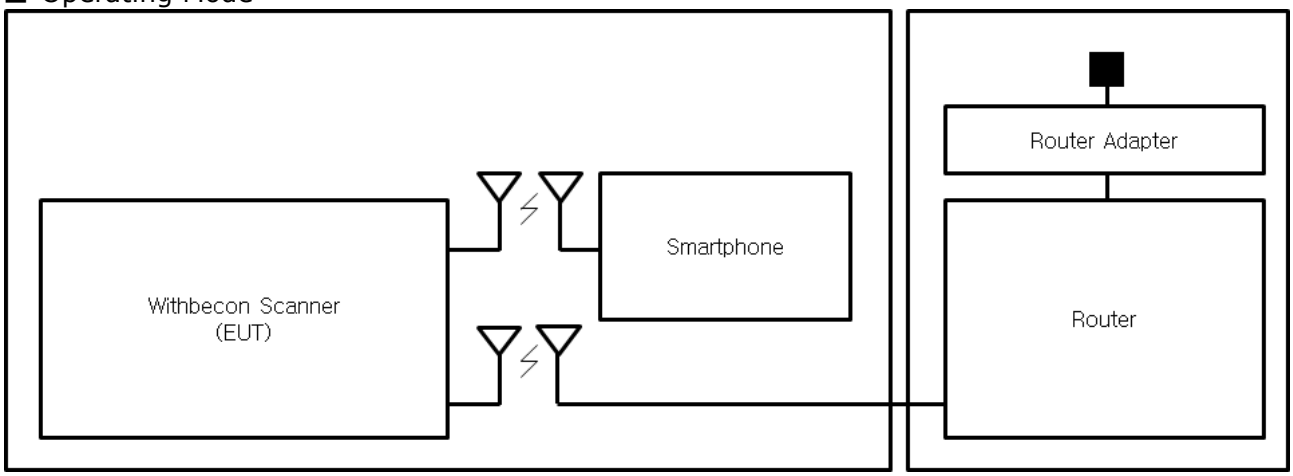
■ Adapter Charge Mode



■ Cradle Charge Mode



■ Operating Mode



EUT – Smartphone : Bluetooth 2.4 GHz
EUT – Router : WLAN 2.4 GHz

1.9 Remarks when standards applied

N/A

1.10 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

1.11 Test Facility

The measurement facility is located at 473-21 Gayeo-ro, Yeoju-si, Gyeonggi-do, 12658, Korea. The sites are constructed in conformance with the requirements of ANSI C63.4a-2017 and CISPR 16-1-4:2019

1.12 Measurement Procedure

- Conducted Emissions

The conducted emission levels were measured on each current-carrying line with the spectrum analyzer operating in the CISPR quasi-peak mode (or peak mode if applicable). The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. If the conducted emission exceed the average limit with the instrument set to the quasi-peak mode, the measurements are made in the average mode. The emission spectrum was scanned from 150 ㎑ to 30 ㎒. The highest emission amplitudes relative to the appropriate limits were measured and have been recorded. Quasi-peak readings are distinguished with a "QP".

- Radiated Electric Field Emissions

The test was done at a SEMI ANECHOIC CHAMBER with quasi-peak detector. The final test data was measured using a Quasi-Peak detector below 1㎓ at 10 m or 3 m distance and a Peak and Average detector above 1 ㎓ at 3 m distance. Test was proceeded worst case test mode and cable configuration.
Measurements were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna height was varied from 1 m to 4 m and the EUT was rotated 360° to find the maximum emitting point for each frequency.

Measurement procedures was In accordance with ANSI C63.4-2014 7.3.3, 7.3.4, 8.3.1.1, 8.3.1.2, 8.3.2.1, 8.3.2.2

1.13 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
KOREA	**RRA**	EMI (3 m & 10 m Semi-Aechoic Chamber ,10 m Open Area and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	KR0100
International	**KOLAS**	EMI (3 m & 10 m Semi-Aechoic Chamber , and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	KT489
USA	**FCC**	3 m & 10 m Semi-Aechoic Chamber, 10 m Open Area and Conducted test site to perform FCC Part 15/18 measurements.	KR0100
Canada	**ISED**	3 m & 10 m Semi-Aechoic Chamber and Conducted test site	23298
JAPAN	**VCCI**	Mains Ports Conducted Interference Measurement, Telecommunication Ports Conducted Disturbance Measurement and Radiation 10 meter site, Facility for measuring radiated disturbance above 1 GHz	R-20056, C-20036 T-20040, G-20057
Europe	**TÜV SÜD**	EMI (3 m & 10 m Semi-Aechoic Chamber , 10 m Open Area and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	CARAT 001633 0004

2.0 Test Regulations

The emissions tests were performed according to following regulations:

☒ **47 CFR Part 15, Subpart B**

☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☒ ANSI C63.4a-2017	☐ Class A	☒ Class B

2.1 Conducted Emissions at Mains Power Ports

Test Date
May. 23, 2022

Test Location
Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due	calibration interval
☒	EMI Test S/W	EMC32	R & S	9.12.00	-	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	12, 28, 2022	1 Year
☒	LISN	ENV216	R & S	101787	12, 27, 2022	1 Year
☐	LISN	ESH2-Z5	R & S	100450	12, 27, 2022	1 Year
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 27, 2022	1 Year

Test Conditions
Temperature: (24,4 ± 0,1) ℃
Relative Humidity: (43,6 ± 0,1) % R.H.

Frequency Range of Measurement
150 ㎑ to 30 ㎒

Instrument Settings
IF Band Width: 9 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.2 Radiated Electric Field Emissions(Below 1 ㎓)

Test Date
May. 23, 2022

Test Location
☐ OPEN AREA TEST SITE #2 ☒ SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due	calibration interval
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.120	-	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	03, 31, 2023	1 Year
☒	BILOG ANTENNA	VULB 9168	SCHWARZBECK	9168-461	04, 27, 2024	2 Year
☒	AMPLIFIER	310N	SONOMA INSTRUMENT	401123	06, 07, 2022	1 Year
☒	ATTENUATOR	6806.17.A	HUBER+SUHNER	-	04, 01, 2023	1 Year

Test Conditions
Temperature: (23,2 ± 0,2) ℃
Relative Humidity: (51,0 ± 0,1) % R.H.

Frequency Range of Measurement
30 ㎒ to 1 ㎓

Instrument Settings
IF Band Width: 120 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.3 Radiated Electric Field Emissions(Above 1 ㎓)

Test Date
May. 24, 2022

Test Location
SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due	calibration interval
☒	EMI Test S/W	ES10/RE	TOYO Corporation	2022.01.000	-	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	03, 31, 2023	1 Year
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	12, 16, 2022	1 Year
☒	PREAMPLIFIER	8449B	HP	3008A00538	06, 21, 2022	1 Year
☒	ATTENUATOR	8491B	HP	23094	04, 21, 2023	1 Year

Test Conditions
Temperature: (23,4 ± 0,2) ℃
Relative Humidity: (51,2 ± 0,1) % R.H.

Frequency Range of Measurement
1 ㎓ to 12,5 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

APPENDIX A – TEST DATA

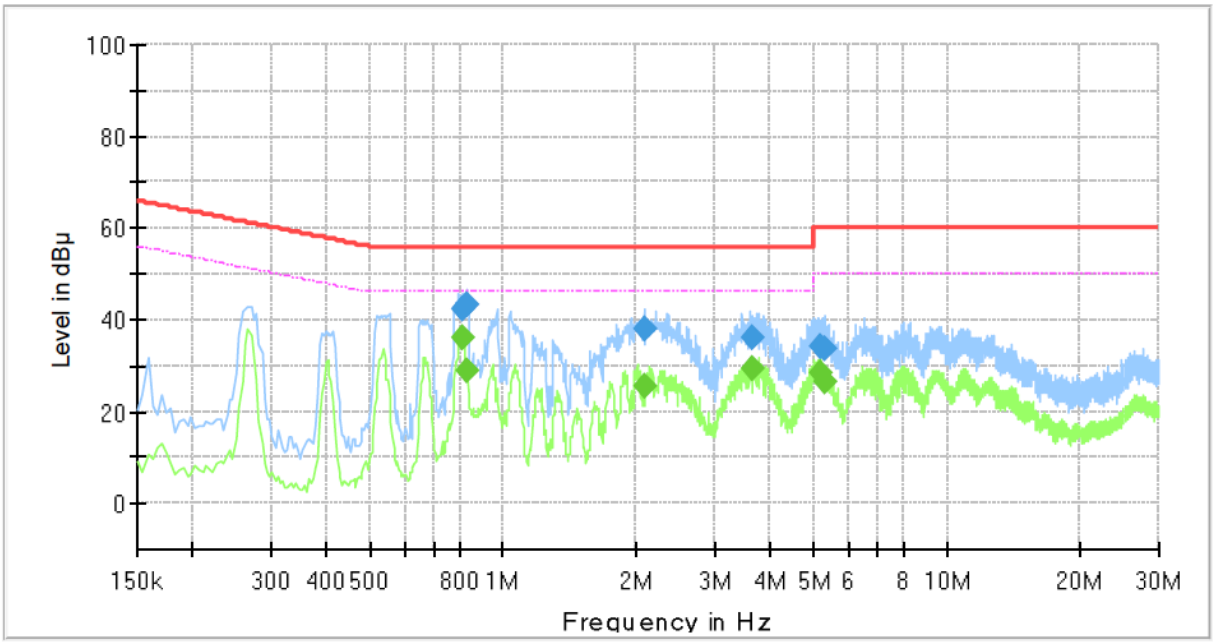
Conducted Emissions at Mains Power Ports

■ Adapter Charge Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	WBS2201
Phase:	
Mode:	Adapter Charge_ H
Operator Name:	KES



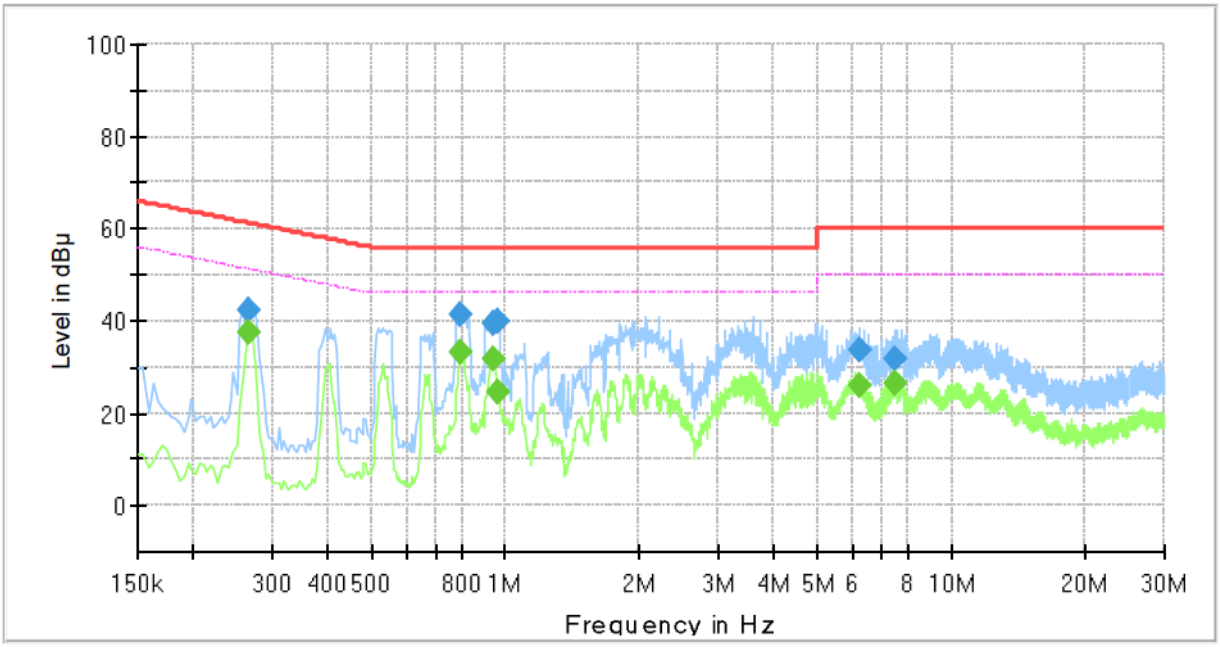
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.806000	---	35.92	46.00	10.08	1000.0	9.000	L1	20.2
0.806000	42.23	---	56.00	13.77	1000.0	9.000	L1	20.2
0.830000	---	28.91	46.00	17.09	1000.0	9.000	L1	20.2
0.830000	43.46	---	56.00	12.54	1000.0	9.000	L1	20.2
2.078000	---	25.33	46.00	20.67	1000.0	9.000	L1	20.5
2.078000	38.16	---	56.00	17.84	1000.0	9.000	L1	20.5
3.626000	---	29.38	46.00	16.62	1000.0	9.000	L1	20.2
3.626000	36.34	---	56.00	19.66	1000.0	9.000	L1	20.2
5.198000	---	28.38	50.00	21.62	1000.0	9.000	L1	19.9
5.198000	34.42	---	60.00	25.58	1000.0	9.000	L1	19.9
5.318000	---	26.54	50.00	23.46	1000.0	9.000	L1	19.9
5.318000	33.94	---	60.00	26.06	1000.0	9.000	L1	19.9

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	WBS2201
Phase:	
Mode:	Adapter Charge_ N
Operator Name:	KES



Final_Result

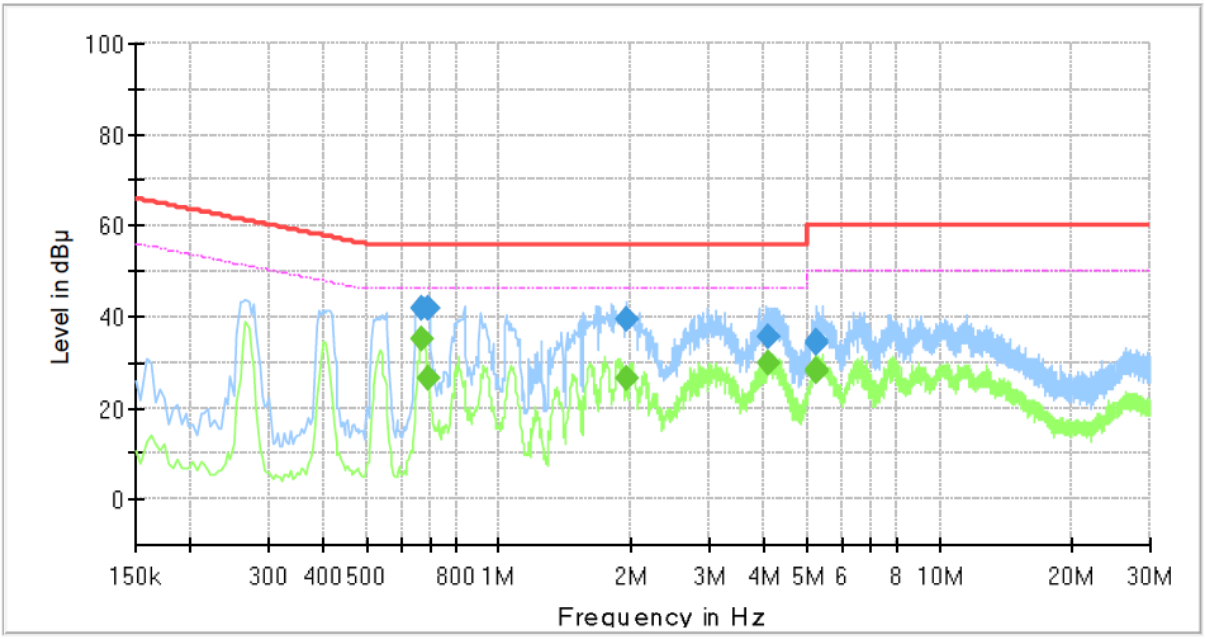
Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.266000	---	37.62	51.24	13.62	1000.0	9.000	N	19.6
0.266000	42.58	---	61.24	18.66	1000.0	9.000	N	19.6
0.794000	---	33.18	46.00	12.82	1000.0	9.000	N	20.1
0.794000	41.46	---	56.00	14.54	1000.0	9.000	N	20.1
0.942000	---	31.57	46.00	14.43	1000.0	9.000	N	20.2
0.942000	39.51	---	56.00	16.49	1000.0	9.000	N	20.2
0.966000	---	24.53	46.00	21.47	1000.0	9.000	N	20.2
0.966000	40.09	---	56.00	15.91	1000.0	9.000	N	20.2
6.210000	---	26.12	50.00	23.88	1000.0	9.000	N	19.8
6.210000	33.67	---	60.00	26.33	1000.0	9.000	N	19.8
7.450000	---	26.43	50.00	23.57	1000.0	9.000	N	19.8
7.450000	31.82	---	60.00	28.18	1000.0	9.000	N	19.8

■ Cradle Charge Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	WBS2201
Phase:	
Mode:	Cradle Charge_ H
Operator Name:	KES



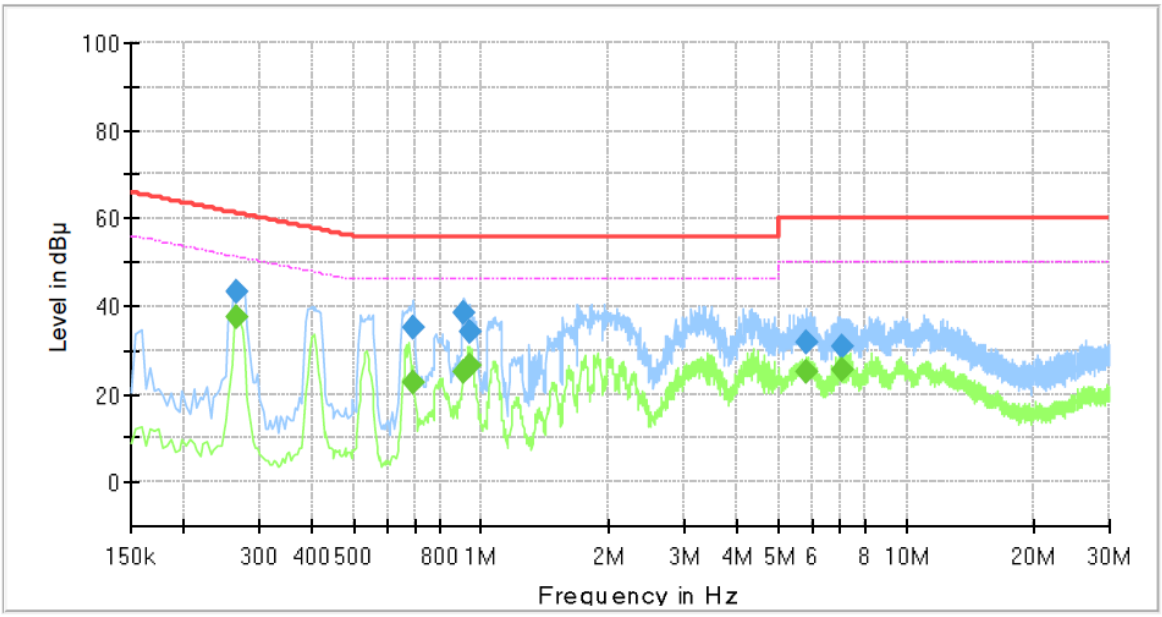
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.666000	---	35.05	46.00	10.95	1000.0	9.000	L1	20.0
0.666000	41.72	---	56.00	14.28	1000.0	9.000	L1	20.0
0.694000	---	26.50	46.00	19.50	1000.0	9.000	L1	20.1
0.694000	41.86	---	56.00	14.14	1000.0	9.000	L1	20.1
1.946000	---	26.63	46.00	19.37	1000.0	9.000	L1	20.5
1.946000	39.71	---	56.00	16.29	1000.0	9.000	L1	20.5
4.086000	---	30.05	46.00	15.95	1000.0	9.000	L1	20.1
4.086000	35.67	---	56.00	20.33	1000.0	9.000	L1	20.1
5.274000	---	27.76	50.00	22.24	1000.0	9.000	L1	19.9
5.274000	34.25	---	60.00	25.75	1000.0	9.000	L1	19.9
5.278000	---	28.45	50.00	21.55	1000.0	9.000	L1	19.9
5.278000	34.76	---	60.00	25.24	1000.0	9.000	L1	19.9

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	WBS2201
Phase:	
Mode:	Cradle Charge_ N
Operator Name:	KES



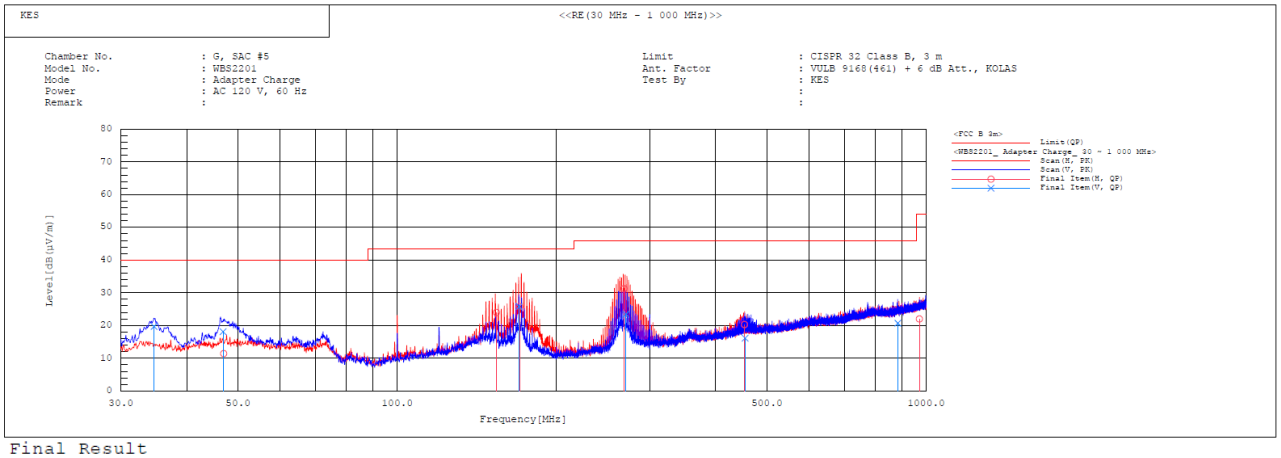
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.266000	---	37.61	51.24	13.63	1000.0	9.000	N	19.6
0.266000	43.33	---	61.24	17.91	1000.0	9.000	N	19.6
0.694000	---	22.45	46.00	23.55	1000.0	9.000	N	20.0
0.694000	35.04	---	56.00	20.96	1000.0	9.000	N	20.0
0.910000	---	24.96	46.00	21.04	1000.0	9.000	N	20.2
0.910000	38.72	---	56.00	17.28	1000.0	9.000	N	20.2
0.934000	---	26.49	46.00	19.51	1000.0	9.000	N	20.2
0.934000	34.18	---	56.00	21.82	1000.0	9.000	N	20.2
5.838000	---	24.97	50.00	25.03	1000.0	9.000	N	19.8
5.838000	31.76	---	60.00	28.24	1000.0	9.000	N	19.8
7.074000	---	25.46	50.00	24.54	1000.0	9.000	N	19.8
7.074000	30.87	---	60.00	29.13	1000.0	9.000	N	19.8

♦ Calculation
QuasiPeak[dBuV] / CAverage [dBuV] = Reading Value[dBuV] + Corr. [dB]
QuasiPeak / CAverage : The Final Value
Reading Value : Not shown in the table.
Corr. : Correction values (LISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

Radiated Electric Field Emissions(Below 1 ㎓)

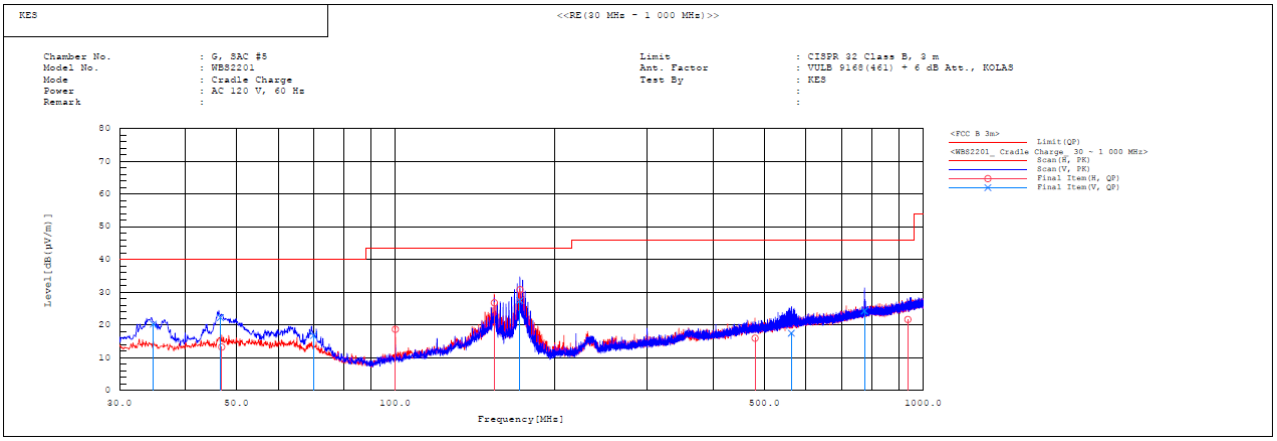
■ Adapter Charge Mode



Final Result

No.	Range	Frequency [MHz]	Pol	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	Range1	34.668	V	33.6	-13.9	19.7	40.0	20.3	102.0	0.5	
2	Range1	46.827	V	31.2	-13.1	18.1	40.0	21.9	150.0	132.9	
3	Range1	46.952	H	24.5	-13.1	11.4	40.0	28.6	398.0	51.5	
4	Range1	153.855	H	36.9	-12.9	24.0	43.5	19.5	298.0	292.2	
5	Range1	170.007	V	39.8	-14.0	25.8	43.5	17.7	124.0	180.9	
6	Range1	170.293	H	39.8	-14.0	25.8	43.5	17.7	356.0	277.7	
7	Range1	268.469	H	44.6	-13.3	31.3	46.0	14.7	110.0	317.8	
8	Range1	270.530	V	36.6	-13.2	23.4	46.0	22.6	154.0	359.2	
9	Range1	453.421	H	28.7	-8.4	20.3	46.0	25.7	369.0	239.5	
10	Range1	454.723	V	24.4	-8.3	16.1	46.0	29.9	105.0	102.8	
11	Range1	884.438	V	21.3	-0.6	20.7	46.0	25.3	118.0	324.5	
12	Range1	970.918	H	20.5	1.5	22.0	54.0	32.0	400.0	327.0	

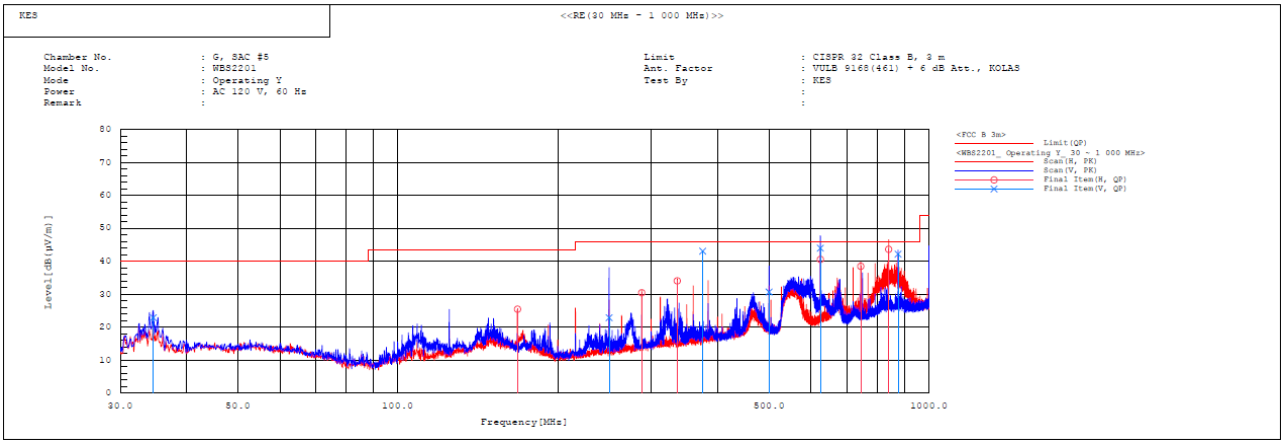
■ Cradle Charge Mode



Final Result

No.	Range	Frequency [MHz]	Pol	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	Range1	34.772	V	34.2	-13.9	20.3	40.0	19.7	105.0	83.6	
2	Range1	46.605	V	35.4	-13.1	22.3	40.0	17.7	100.0	27.6	
3	Range1	46.878	H	26.4	-13.1	13.3	40.0	26.7	399.0	77.9	
4	Range1	69.942	V	31.9	-15.1	16.8	40.0	23.2	114.0	30.5	
5	Range1	99.986	H	36.1	-17.4	18.7	43.5	24.8	386.0	266.7	
6	Range1	154.014	H	39.7	-12.9	26.8	43.5	16.7	298.0	34.6	
7	Range1	172.184	V	41.6	-14.1	27.5	43.5	16.0	110.0	125.0	
8	Range1	172.251	H	44.9	-14.1	30.8	43.5	12.7	400.0	251.0	
9	Range1	480.263	H	23.9	-7.9	16.0	46.0	30.0	359.0	87.5	
10	Range1	563.077	V	23.9	-6.4	17.5	46.0	28.5	110.0	232.3	
11	Range1	774.397	V	26.5	-2.2	24.3	46.0	21.7	150.0	230.6	
12	Range1	935.980	H	21.0	0.7	21.7	46.0	24.3	400.0	183.0	

■ Operating Mode



Final Result

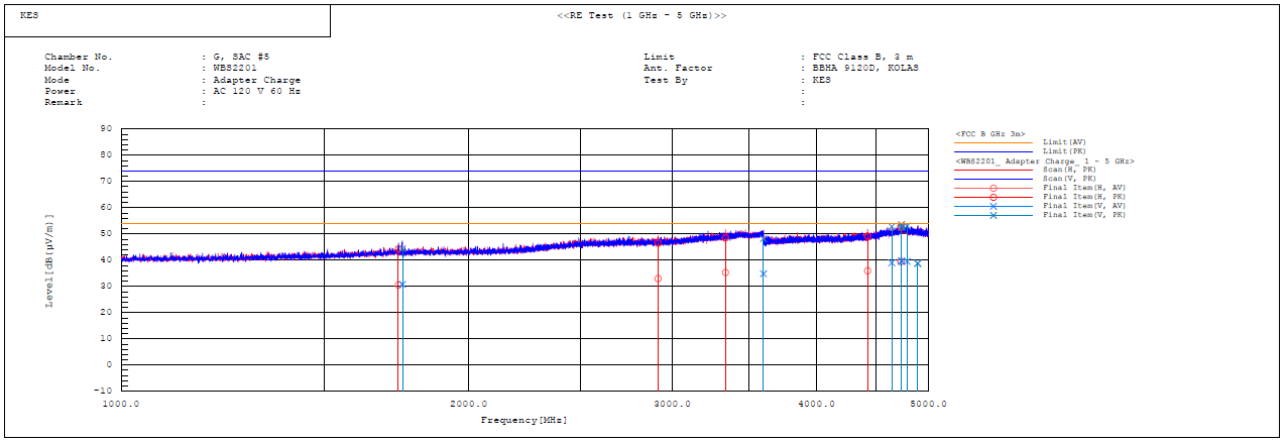
No.	Range	Frequency [MHz]	Pol	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	Range1	34.637	V	36.8	-13.9	22.9	40.0	17.1	100.0	270.8	
2	Range1	167.995	H	39.4	-13.9	25.5	43.5	18.0	400.0	54.1	
3	Range1	249.993	V	36.9	-14.0	22.9	46.0	23.1	112.0	0.7	
4	Range1	287.981	H	43.1	-12.6	30.5	46.0	15.5	295.0	6.8	
5	Range1	335.991	H	45.6	-11.5	34.1	46.0	11.9	400.0	354.9	
6	Range1	374.998	V	53.7	-10.6	43.1	46.0	2.9	144.0	236.6	
7	Range1	499.999	V	38.3	-7.6	30.7	46.0	15.3	105.0	157.1	
8	Range1	624.997	H	45.6	-5.0	40.6	46.0	5.4	298.0	205.1	
9	Range1	625.006	V	49.0	-5.0	44.0	46.0	2.0	110.0	1.2	
10	Range1	743.943	H	41.4	-2.9	38.5	46.0	7.5	398.0	1.6	
11	Range1	839.929	H	45.2	-1.5	43.7	46.0	2.3	392.0	176.0	
12	Range1	875.007	V	43.0	-0.8	42.2	46.0	3.8	119.0	3.1	

- The Fundamental of the EUT was investigated in three orthogonal orientations X, Y, Z
It was determed that Y orientation was worst-case orientation; therefore, al tinal radiated testing was performed with the EUT in Y orientation

♦ Calculation
Result(QP) [dB(μV/m)] = (Reading(QP)[dB(μV)] + c.f[dB(1/m)]
Margin(QP)[dB] = Limit[dB(μV/m)] - Result(QP) [dB(μV/m)]
Reading(QP) : Reading value, Result(QP) : Reading value + Factor value
Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

Radiated Electric Field Emissions(Above 1 ㎓)

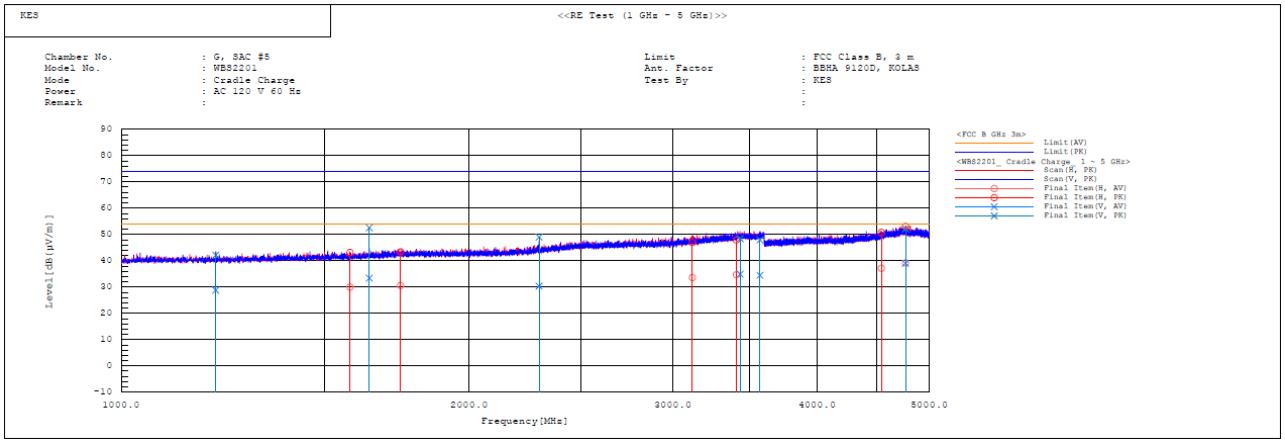
■ Adapter Charge Mode



Final Result

No.	Range	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Measured Step	Remark
1	Range1	1738.585	H	28.4	42.2	2.1	30.5	44.3	54.0	74.0	23.5	29.7	399.0	30.5	Unknown	
2	Range1	1752.400	V	28.6	42.2	2.2	30.8	44.4	54.0	74.0	23.2	29.6	166.0	112.0	Unknown	
3	Range1	2917.254	H	26.2	39.7	6.8	33.0	46.5	54.0	74.0	21.0	27.5	105.0	256.0	Unknown	
4	Range1	3336.821	H	27.4	40.6	7.9	35.3	48.5	54.0	74.0	18.7	25.5	385.0	0.3	Unknown	
5	Range1	3598.858	V	26.6	40.0	8.2	34.8	48.2	54.0	74.0	19.2	25.8	127.0	151.1	Unknown	
6	Range1	4429.765	H	24.7	37.9	11.3	36.0	49.2	54.0	74.0	18.0	24.8	400.0	240.4	Unknown	
7	Range1	4648.385	V	26.9	40.7	12.1	39.0	52.8	54.0	74.0	15.0	21.2	100.0	121.9	Unknown	
8	Range1	4733.170	H	27.1	40.5	12.4	39.5	52.9	54.0	74.0	14.5	21.1	389.0	359.5	Unknown	
9	Range1	4734.650	H	27.1	40.1	12.4	39.5	52.5	54.0	74.0	14.5	21.5	106.0	1.9	Unknown	
10	Range1	4738.800	V	27.3	41.2	12.4	39.7	53.6	54.0	74.0	14.3	20.4	358.0	324.7	Unknown	
11	Range1	4739.334	V	27.2	40.3	12.4	39.6	52.7	54.0	74.0	14.4	21.3	125.0	7.5	Unknown	
12	Range1	4791.789	V	26.9	40.3	12.7	39.6	53.0	54.0	74.0	14.4	21.0	154.0	128.7	Unknown	
13	Range1	4894.879	V	25.9	25.9	12.9	38.8	38.8	54.0	74.0	15.2	35.2	112.0	323.9	Unknown	

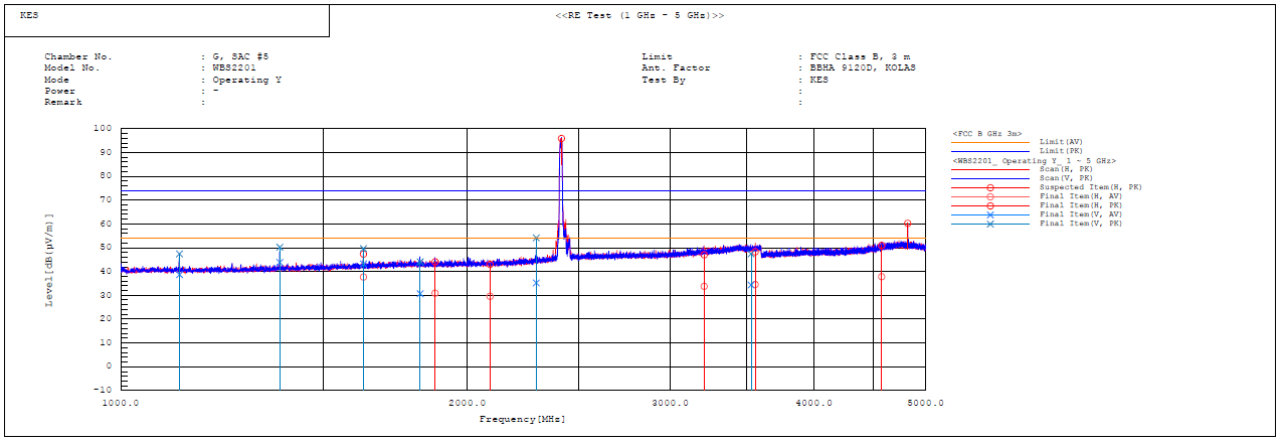
■ Cradle Charge Mode



Final Result

No.	Range	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Measured Step	Remark
1	Range1	1207.546	V	29.3	42.7	-0.5	28.8	42.2	54.0	74.0	25.2	31.8	110.0	1.8	Unknown	
2	Range1	1577.713	H	28.7	41.9	1.3	30.0	43.2	54.0	74.0	24.0	30.8	365.0	94.6	Unknown	
3	Range1	1639.554	V	31.8	50.9	1.6	33.4	52.5	54.0	74.0	20.6	21.5	128.0	359.6	Unknown	
4	Range1	1744.892	H	28.5	41.3	2.1	30.6	43.4	54.0	74.0	23.4	30.6	391.0	54.4	Unknown	
5	Range1	2299.270	V	26.1	44.7	4.3	30.4	49.0	54.0	74.0	23.6	25.0	102.0	30.9	Unknown	
6	Range1	3119.786	H	26.2	39.6	7.4	33.6	47.0	54.0	74.0	20.4	27.0	394.0	17.3	Unknown	
7	Range1	3406.400	H	26.7	39.9	8.0	34.7	47.9	54.0	74.0	19.3	26.1	121.0	33.3	Unknown	
8	Range1	3431.602	V	26.9	40.4	8.0	34.9	48.4	54.0	74.0	19.1	25.6	385.0	348.4	Unknown	
9	Range1	3569.703	V	26.3	39.7	8.2	34.5	47.9	54.0	74.0	19.5	26.1	400.0	299.6	Unknown	
10	Range1	4546.249	H	25.5	39.1	11.7	37.2	50.8	54.0	74.0	16.8	23.2	269.0	85.7	Unknown	
11	Range1	4769.882	V	26.4	39.5	12.6	39.0	52.1	54.0	74.0	15.0	21.9	100.0	129.4	Unknown	
12	Range1	4770.166	H	26.6	40.5	12.6	39.2	53.1	54.0	74.0	14.8	20.9	298.0	119.5	Unknown	

■ Operating Mode
- (1 ~ 5) ㎓



Final Result

No.	Range	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Remark
1	Range1	1125.102	V	39.6	48.3	-0.9	38.7	47.4	54.0	74.0	15.3	26.6	150.0	325.1	
2	Range1	1374.866	V	43.2	49.6	0.6	43.8	50.2	54.0	74.0	10.2	23.8	154.0	181.9	
3	Range1	1624.907	V	41.7	48.1	1.5	43.2	49.6	54.0	74.0	10.8	24.4	146.0	135.5	
4	Range1	1625.131	H	36.2	45.8	1.5	37.7	47.3	54.0	74.0	16.3	26.7	356.0	131.9	
5	Range1	1820.555	V	28.2	41.6	2.5	30.7	44.1	54.0	74.0	23.3	29.9	105.0	304.3	
6	Range1	1875.045	H	28.1	41.3	2.8	30.9	44.1	54.0	74.0	23.1	29.9	102.0	32.9	
7	Range1	2093.445	H	26.0	39.4	3.6	29.6	43.0	54.0	74.0	24.4	31.0	398.0	154.2	
8	Range1	2295.808	V	30.9	49.8	4.3	35.2	54.1	54.0	74.0	18.8	19.9	121.0	355.9	
9	Range1	3211.691	H	26.1	39.3	7.7	33.8	47.0	54.0	74.0	20.2	27.0	108.0	140.4	
10	Range1	3527.685	V	26.2	39.3	8.1	34.3	47.4	54.0	74.0	19.7	26.6	400.0	89.9	
11	Range1	3557.125	H	26.5	40.2	8.1	34.6	48.3	54.0	74.0	19.4	25.7	298.0	100.3	
12	Range1	4579.436	H	26.0	39.2	11.8	37.8	51.0	54.0	74.0	16.2	23.0	112.0	286.8	
13	Range1	2414.400	H	---	---	4.7	---	---	---	---	---	---	200.2	249.9	
14	Range1	4824.000	H	---	---	12.8	---	---	---	---	---	---	200.2	303.5	

* Exclusion Bands
- Fundamental Frequency: 2.4 ㎓ Band
- Harmonic Frequency: 4.8 ㎓ Band

♦ Calculation

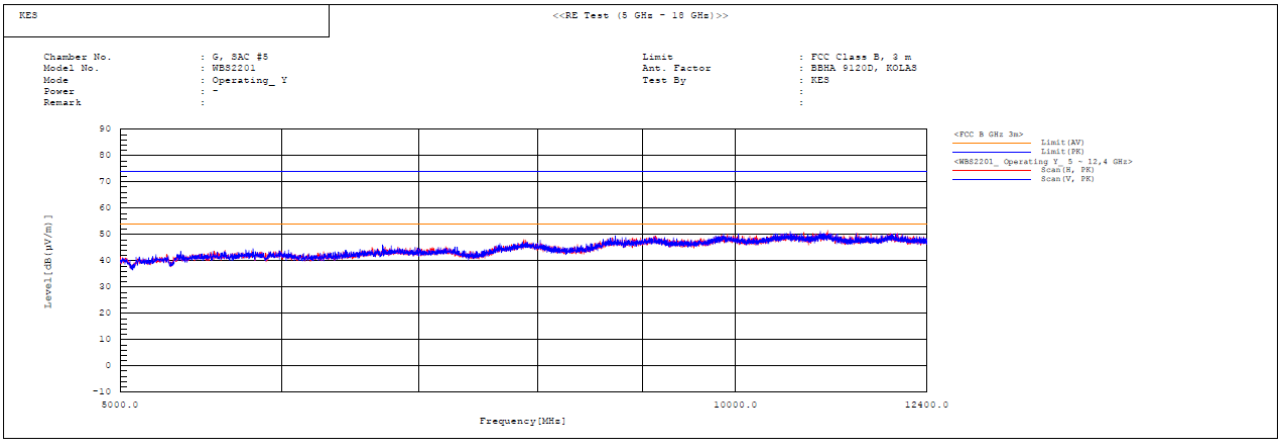
Result(PK/CAV) [dB(㎶/m)] = (Reading(PK/CAV)[dB(㎶)] + c.f[dB(1/m)]

Margin(PK/CAV)[dB] = Limit[dB(㎶/m)] - Result(PK/CAV) [dB(㎶/m)]

Reading(PK/CAV) : Reading value, Result(PK/CAV) : Reading value + Factor value

Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

- (5 ~ 12.5) GHz



- No spurious emission were detected above 5 GHz.