EMC TEST REPORT

Test Report No.	:	KES-EM-21T0502
Date of Issue	:	Jun. 29, 2021
Product name	:	DUALSONIC MAXIMUM
Model/Type No.	:	JOMT-AH-11A
Variant Model	:	JOMT-AH-12A, JOMT-AH-13A, JOMT-AH-14A, JOMT-AH-15A, JOMT-AH-16A
Applicant	:	JION MEDITECH
Applicant Address	:	#403, 250 Hagui-ro, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea
Manufacturer	:	JION MEDITECH
Manufacturer Address	:	#403, 250 Hagui-ro, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea
FCC ID	:	2AQQZJOMT-AH-11A
Equipment authorization	:	**Supplier's Declaration of Conformity**
Date of Receipt	:	May. 19, 2021
Test date	:	Jun. 20, 2021 ~ Jun. 22, 2021
Test Results	:	☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dae Hyun, Kim
EMC Test Engineer

Reviewed by

Dong-Hun, Jang
EMC Technical Manager

This test report is not related to KS Q ISO/IEC 17025 and KOLAS.

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Jun. 29, 2021	KES-EM-21T0502	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Item	Details
Operating Mode	HIFU – 1.5, 3.0, 4.5 RF – 1 Level ~ 3 Level Micro-Current – 1 Level ~ 3 Level LED – Red, IR, Yellow
Operating Frequency	Bluetooth 2.4 ㎓
Wireless	802.15 Bluetooth Low Energy 4.2
Rated Voltage	Input : DC 5 V, 2 A Internal Battery : 3.65 V, 2,750 ㎃h (Lithium Ion Battery)
Environment condition	Temp. : 0 ~ 50 ˚C Humidity : 30 ~ 90 %R.H.
Dimension	35 ㎜ * 65 ㎜ * 210 ㎜
Weight	202 g

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 ㎐(Adapter): Cradle Charge, USB Charge Mode
☒ DC 3.7 V Battery: Lift-Up, Cos-Up, Daily-Up, Tight-Up, Bluetooth Mode

1.2 Variant Model Differences

Add simple derivative model by buyer request.

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
DUALSONIC MAXIMUM	JOMT-AH-11A	-	JION MEDITECH	EUT
Cradle	-	-	JION MEDITECH	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
AC/DC Adapter	PS1OJ050K2000KU	-	Shenzhen flypower technology co.,ltd	-
SmartPhone	A1429	-	Apple	-

1.6 External I/O Cabling

■ Cradle Charge Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
DUALSONIC MAXIMUM (EUT)	USB C Type	Cradle (EUT)	USB C Type	-	-
Cradle (EUT)	USB C Type	AC/DC Adapter	USB	1.0	U

* Unshielded=U, Shielded=S

■ USB Charge Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
DUALSONIC MAXIMUM (EUT)	USB C Type	AC/DC Adapter	USB	1.0	U

* Unshielded=U, Shielded=S

■ Lift-Up Mode / Cos-Up Mode / Daily-Up Mode / Tight-Up Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
DUALSONIC MAXIMUM (EUT)	-	-	-	-	-

* Unshielded=U, Shielded=S

■ Bluetooth Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
DUALSONIC MAXIMUM (EUT)	Wireless	SmartPhone	Wireless	-	-

* Unshielded=U, Shielded=S

1.7 EUT Operating Mode(s)

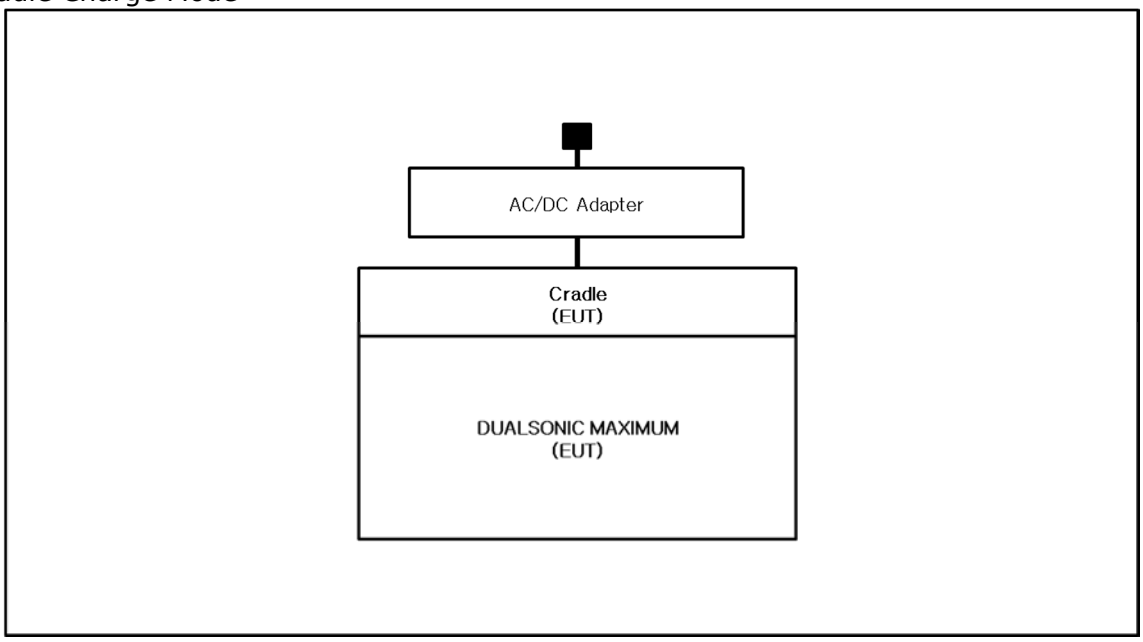
Test Mode	operating
Cradle Charge / USB Charge	Tested while checking the normal state of charge.
Lift-Up / Cos-Up / Daily-Up / Tight-Up	Tested while checking the normal operation status on the LCD screen of the EUT.
Bluetooth	Normal operation was confirmed with SmartPhone.

EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
DUALSONIC App	-	JION MEDITECH

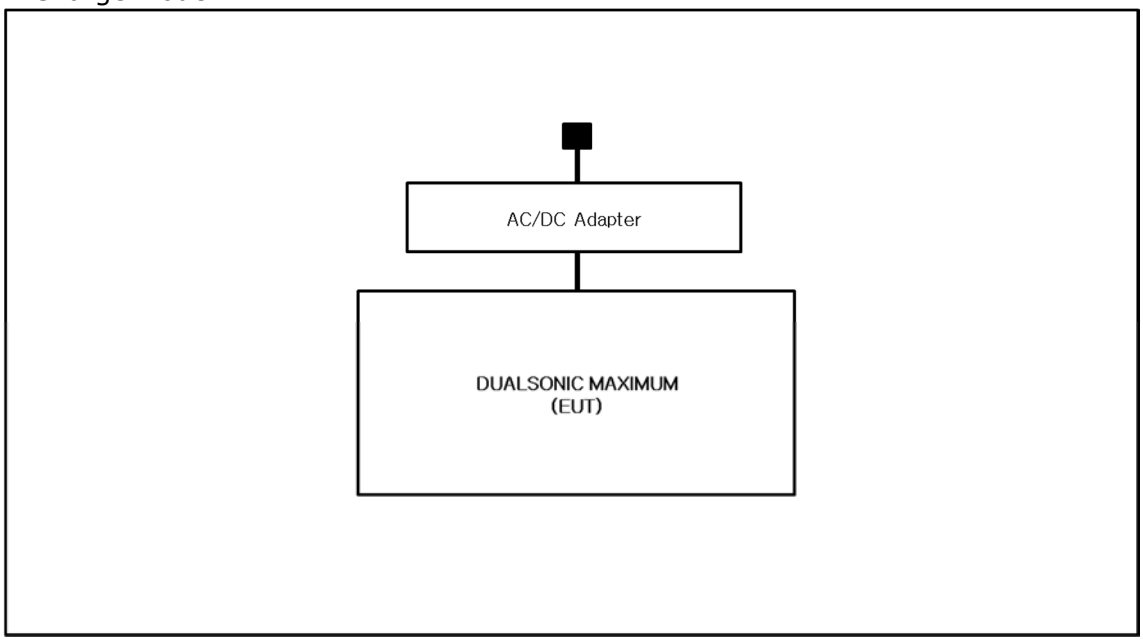
1.8 Configuration

■ AC Main
□ DC Main

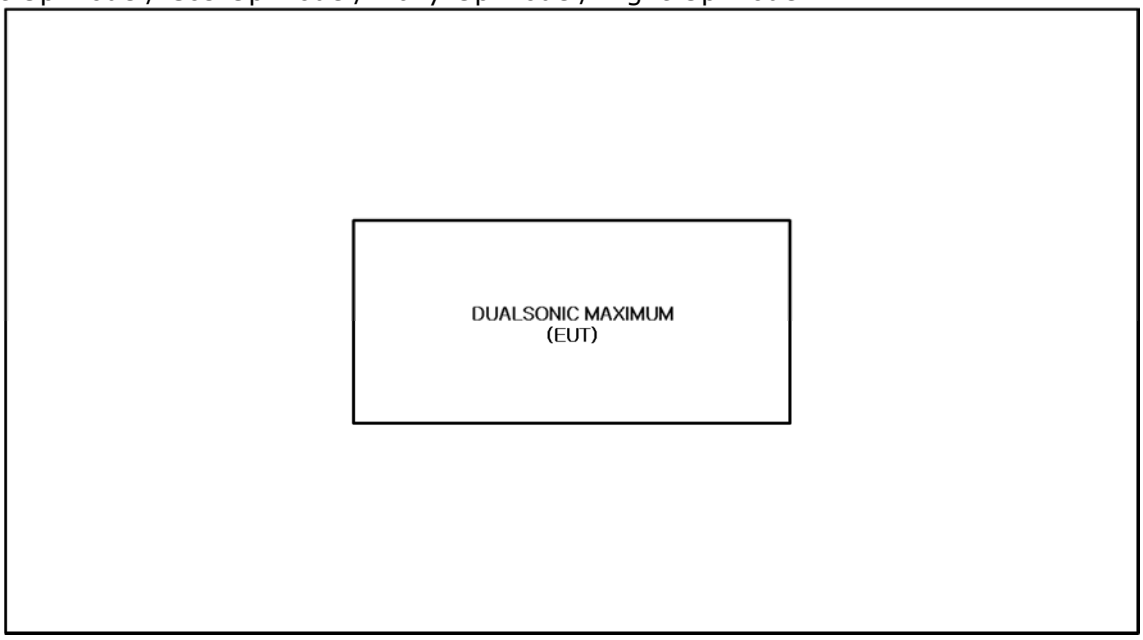
■ Cradle Charge Mode



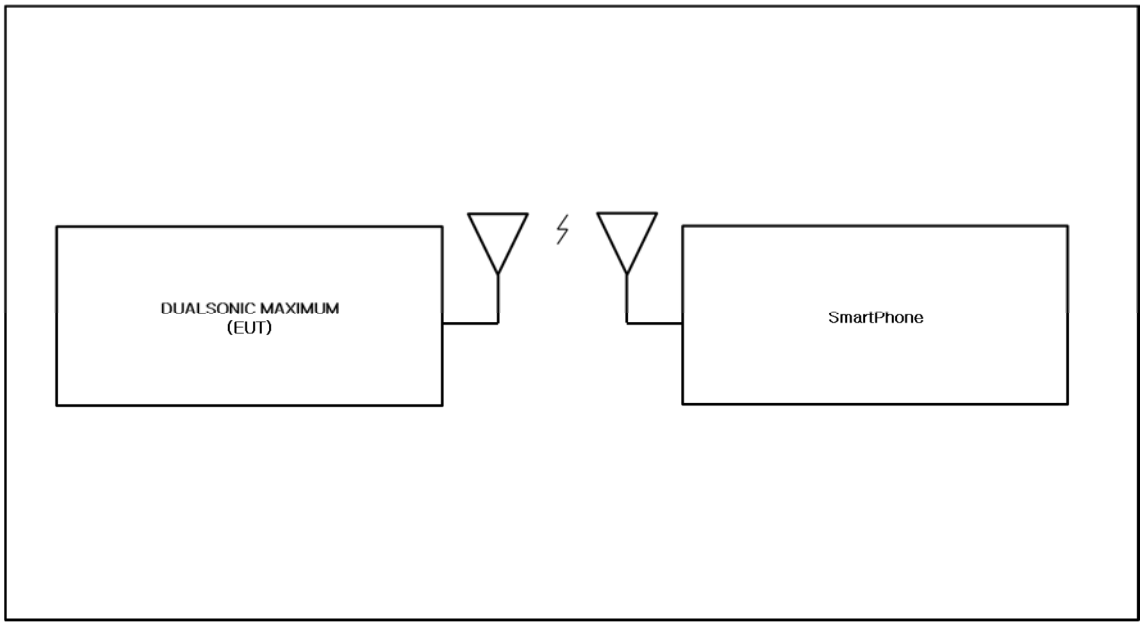
■ USB Charge Mode



■ Lift-Up Mode / Cos-Up Mode / Daily-Up Mode / Tight-Up Mode



■ Bluetooth Mode



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 C63.4:2014 and CISPR 16-1-4:2019

1.12 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
KOREA	**RRA**	EMI (3 m & 10 m Semi-Anechoic 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-Anechoic Chamber , and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	KT489
USA	**FCC**	3 m & 10 m Semi-Anechoic Chamber, 10 m Open Area and Conducted test site to perform FCC Part 15/18 measurements.	KR0100
Canada	**ISED**	3 m & 10 m Semi-Anechoic Chamber and Conducted test site	23298-1
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-Anechoic 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:

☐ **EMC – Directive 2014/30/EU**

☐ EN 61000-6-3:2011

☐ EN 61000-6-1:2007

☐ EN 61000-6-4:2007 +A1:2011

☐ EN 61000-6-2:2005

☐ EN 55011:2007 +A1:2010 ☐ Group 1 ☐ Class A ☐ Group 2 ☐ Class B

☐ EN 55014-1:2006 +A2:2011

☐ EN 55014-2:1997 +A2:2008

☐ EN 55015:2013

☐ EN 55032:2015 ☐ Class A ☐ Class B

☐ EN 55024:2010

☐ EN 50130-4:2011 +A1:2014

☐ EN 61000-3-2:2014

☐ EN 61000-3-3:2013

☐ EN 61326-1:2013

☐ **VCCI-CISPR 32:2016**	☐ Class A	☐ Class B
☐ **AS/NZS CISPR32:2015**	☐ Class A	☐ Class B
☒ **47 CFR Part 15, Subpart B**		
☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☒ ANSI C63.4-2017	☐ Class A	☒ Class B
☐ **IC Regulation ICES-003 Issue 7**		
☐ CAN/CSA CISPR 32:17	☐ Class A	☐ Class B
☐ ANSI C63.4-2017	☐ Class A	☐ Class B

☐ **RE– Directive 2014/53/EU**

☐ EN 301 489-1 V2.2.3

- ☐ Equipment for fixed use
- ☐ Equipment for vehicular use
- ☐ Equipment for portable use

☐ EN 301 489-3 V1.6.1

☐ EN 301 489-17 V2.2.1

☐ EN 60945:2002

2.1 Conducted Emissions at Mains Power Ports

Test Date
Jun. 20, 2021

Test Location
Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EMC32	R & S	9.12.00	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	01, 15, 2022
☒	LISN	ENV216	R & S	101787	12, 29, 2021
☐	LISN	ESH2-Z5	R & S	100450	12, 29, 2021
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 29, 2021

Test Conditions
Temperature: (24,8 ± 0,1) ℃
Relative Humidity: (47,1 ± 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
Jun. 21, 2021

Test Location
☐ OPEN AREA TEST SITE #2 ☒ SEMI ANECHOIC CHAMBER #4

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	04, 01, 2022
☒	AMPLIFIER	SCU 01	R & S	100603	11, 25, 2021
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	12, 08, 2022
☒	ATTENUATOR	8491A	HP	32173	03, 10, 2022

Test Conditions
Temperature: (24,4 ± 0,2) ℃
Relative Humidity: (46,3 ± 0,3) % 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.
- The fundamental of the EUT was investigated in there orthogonal orientations X, Y and Z.

2.3 Radiated Electric Field Emissions(Above 1 ㎓)

Test Date
Jun. 22, 2021

Test Location
SEMI ANECHOIC CHAMBER #4(10m)

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	04, 01, 2022
☒	PREAMPLIFIER	8449B	AGILENT	3008A01742	12, 29, 2021
☐	ATTENUATOR	8491A	HP	35496	03, 10, 2022
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	12, 14, 2021

Test Conditions
Temperature: (24,5 ± 0,3) ℃
Relative Humidity: (46,8 ± 0,4) % R.H.

Frequency Range of Measurement
1 ㎓ to 12.4 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:
☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
- See Appendix A for test data.
- The fundamental of the EUT was investigated in there orthogonal orientations X, Y and Z.

APPENDIX A – TEST DATA

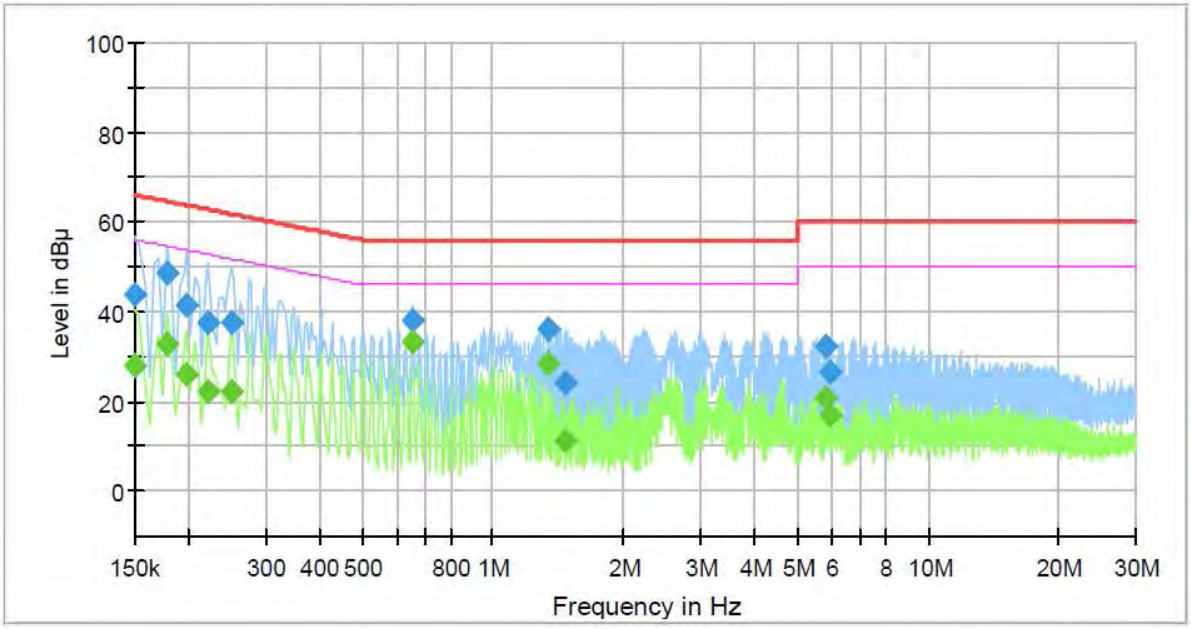
Conducted Emissions at Mains Power Ports

■ Cradle Charge Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	JOMT-AH-11A
Phase:	
Mode:	Cradle Charge / FCC
Operator Name:	KES



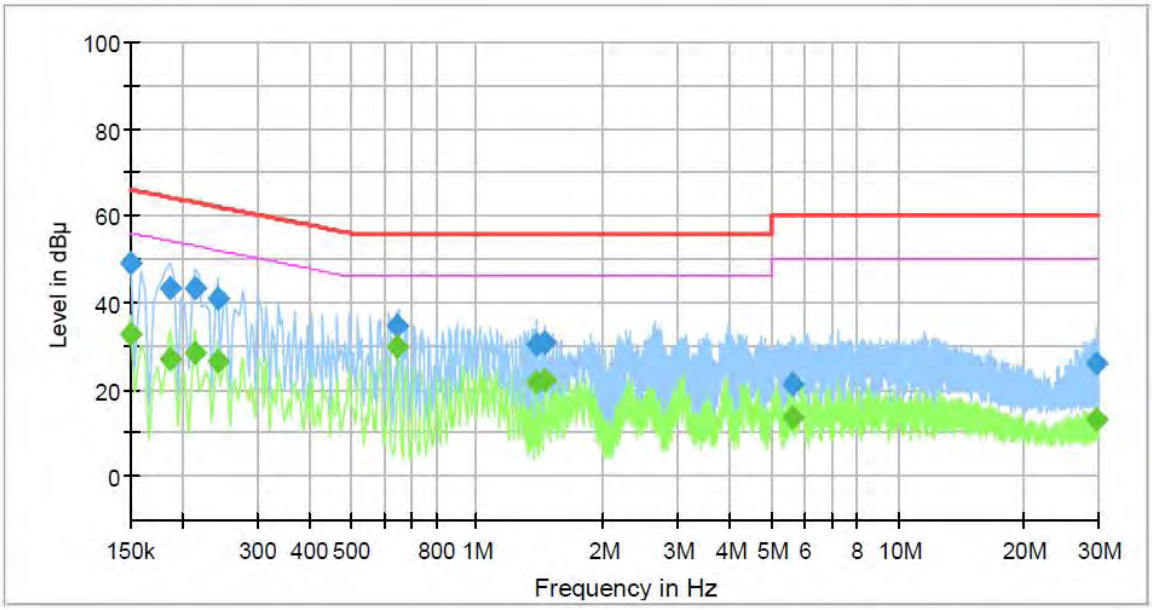
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	44.03	---	66.00	21.97	1000.0	9.000	L1	19.7
0.150000	---	27.93	56.00	28.07	1000.0	9.000	L1	19.7
0.178000	48.77	---	64.58	15.81	1000.0	9.000	L1	19.7
0.178000	---	32.57	54.58	22.01	1000.0	9.000	L1	19.7
0.198000	---	26.03	53.69	27.66	1000.0	9.000	L1	19.8
0.198000	41.51	---	63.69	22.18	1000.0	9.000	L1	19.8
0.222000	---	22.13	52.74	30.61	1000.0	9.000	L1	19.8
0.222000	37.48	---	62.74	25.26	1000.0	9.000	L1	19.8
0.250000	37.58	---	61.76	24.18	1000.0	9.000	L1	19.8
0.250000	---	22.36	51.76	29.40	1000.0	9.000	L1	19.8
0.654000	37.86	---	56.00	18.14	1000.0	9.000	L1	20.2
0.654000	---	33.45	46.00	12.55	1000.0	9.000	L1	20.2
1.330000	---	28.33	46.00	17.67	1000.0	9.000	L1	20.5
1.330000	36.19	---	56.00	19.81	1000.0	9.000	L1	20.5
1.458000	---	11.23	46.00	34.77	1000.0	9.000	L1	20.5
1.458000	23.99	---	56.00	32.01	1000.0	9.000	L1	20.5
5.830000	32.43	---	60.00	27.57	1000.0	9.000	L1	20.0
5.830000	---	20.71	50.00	29.29	1000.0	9.000	L1	20.0
5.934000	26.58	---	60.00	33.42	1000.0	9.000	L1	20.0
5.934000	---	16.75	50.00	33.25	1000.0	9.000	L1	20.0

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	JOMT-AH-11A
Phase:	
Mode:	Cradle Charge / FCC
Operator Name:	KES



Final_Result

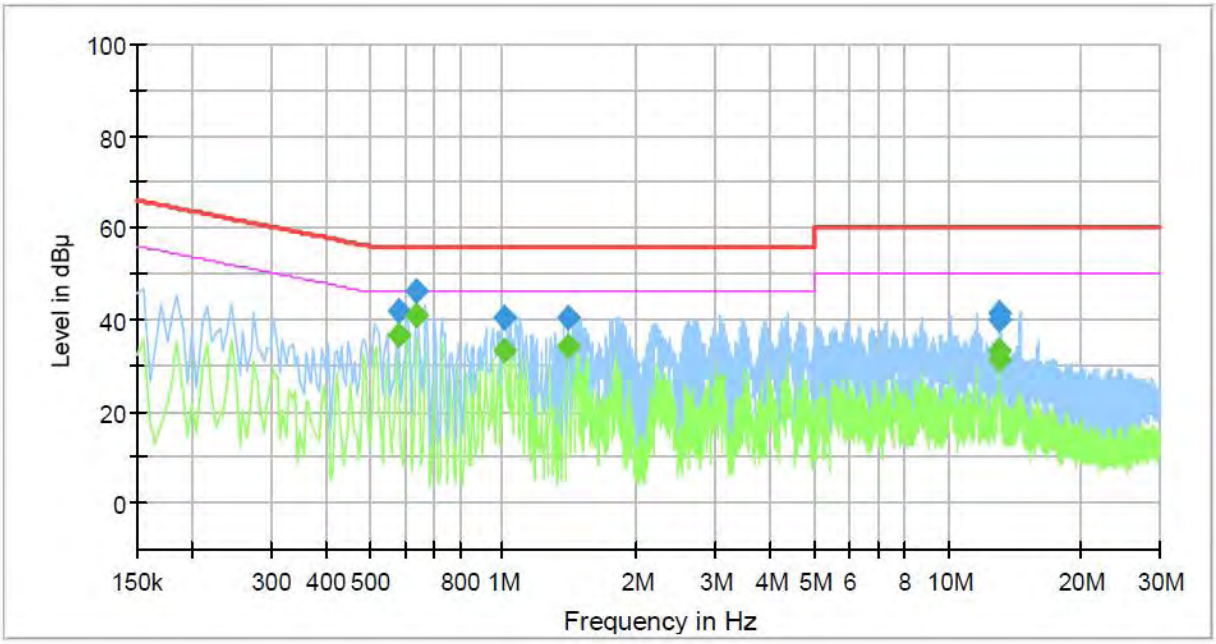
Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	49.02	---	66.00	16.98	1000.0	9.000	N	19.7
0.150000	---	32.87	56.00	23.13	1000.0	9.000	N	19.7
0.186000	---	27.12	54.21	27.09	1000.0	9.000	N	19.7
0.186000	43.13	---	64.21	21.08	1000.0	9.000	N	19.7
0.214000	---	28.64	53.05	24.41	1000.0	9.000	N	19.7
0.214000	43.31	---	63.05	19.74	1000.0	9.000	N	19.7
0.242000	---	26.64	52.03	25.39	1000.0	9.000	N	19.8
0.242000	40.72	---	62.03	21.31	1000.0	9.000	N	19.8
0.646000	34.53	---	56.00	21.47	1000.0	9.000	N	20.2
0.646000	---	29.95	46.00	16.05	1000.0	9.000	N	20.2
1.390000	---	21.59	46.00	24.41	1000.0	9.000	N	20.5
1.390000	30.20	---	56.00	25.80	1000.0	9.000	N	20.5
1.450000	---	22.41	46.00	23.59	1000.0	9.000	N	20.5
1.450000	30.60	---	56.00	25.40	1000.0	9.000	N	20.5
5.618000	21.15	---	60.00	38.85	1000.0	9.000	N	20.0
5.618000	---	13.48	50.00	36.52	1000.0	9.000	N	20.0
29.714000	26.14	---	60.00	33.86	1000.0	9.000	N	21.4
29.714000	---	12.84	50.00	37.16	1000.0	9.000	N	21.4

■ USB Charge Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	JOMT-AH-11A
Phase:	
Mode:	USB Charge / FCC
Operator Name:	KES



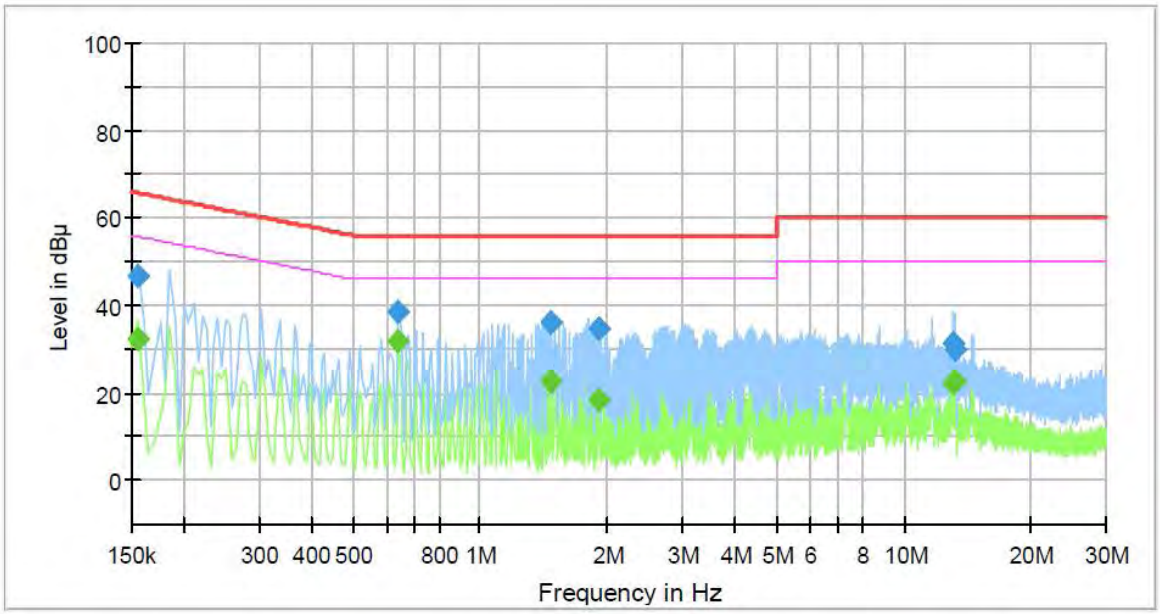
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.580000	---	36.70	46.00	9.30	1000.0	9.000	L1	19.8
0.580000	41.98	---	56.00	14.02	1000.0	9.000	L1	19.8
0.640000	---	40.70	46.00	5.30	1000.0	9.000	L1	19.9
0.640000	46.28	---	56.00	9.72	1000.0	9.000	L1	19.9
1.005000	---	33.43	46.00	12.57	1000.0	9.000	L1	20.0
1.005000	40.52	---	56.00	15.48	1000.0	9.000	L1	20.0
1.400000	---	34.11	46.00	11.89	1000.0	9.000	L1	20.2
1.400000	40.23	---	56.00	15.77	1000.0	9.000	L1	20.2
13.095000	---	33.44	50.00	16.56	1000.0	9.000	L1	19.9
13.095000	41.49	---	60.00	18.51	1000.0	9.000	L1	19.9
13.105000	---	31.51	50.00	18.49	1000.0	9.000	L1	19.9
13.105000	40.18	---	60.00	19.82	1000.0	9.000	L1	19.9

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	JOMT-AH-11A
Phase:	
Mode:	USB Charge / FCC
Operator Name:	KES



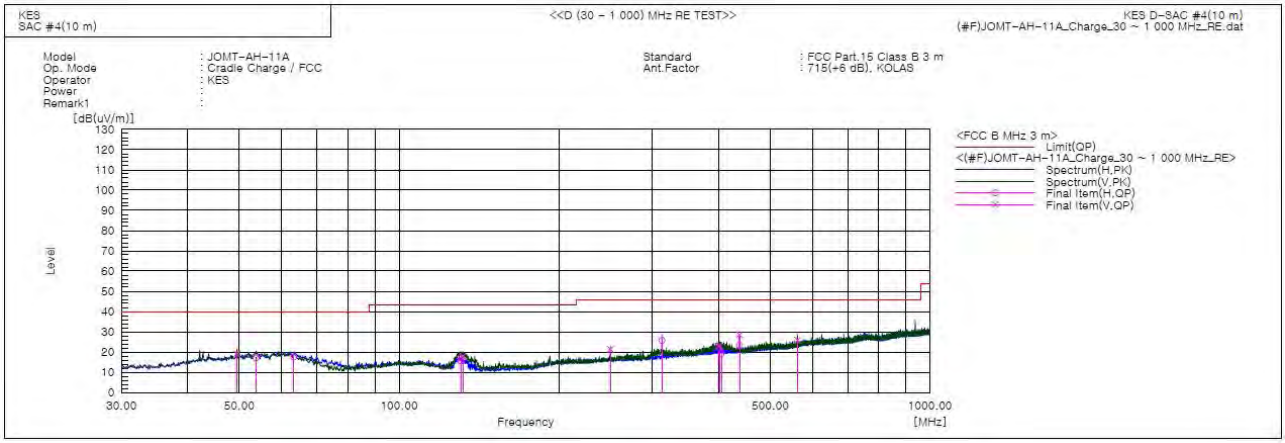
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	---	32.34	55.73	23.39	1000.0	9.000	N	19.4
0.155000	46.83	---	65.73	18.90	1000.0	9.000	N	19.4
0.640000	---	31.71	46.00	14.29	1000.0	9.000	N	19.8
0.640000	38.36	---	56.00	17.64	1000.0	9.000	N	19.8
1.470000	---	22.82	46.00	23.18	1000.0	9.000	N	20.2
1.470000	36.04	---	56.00	19.96	1000.0	9.000	N	20.2
1.900000	---	18.57	46.00	27.43	1000.0	9.000	N	20.3
1.900000	34.53	---	56.00	21.47	1000.0	9.000	N	20.3
13.110000	---	22.23	50.00	27.77	1000.0	9.000	N	19.9
13.110000	31.45	---	60.00	28.55	1000.0	9.000	N	19.9
13.155000	---	22.80	50.00	27.20	1000.0	9.000	N	19.9
13.155000	29.96	---	60.00	30.04	1000.0	9.000	N	19.9

◆ 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 ㎓)

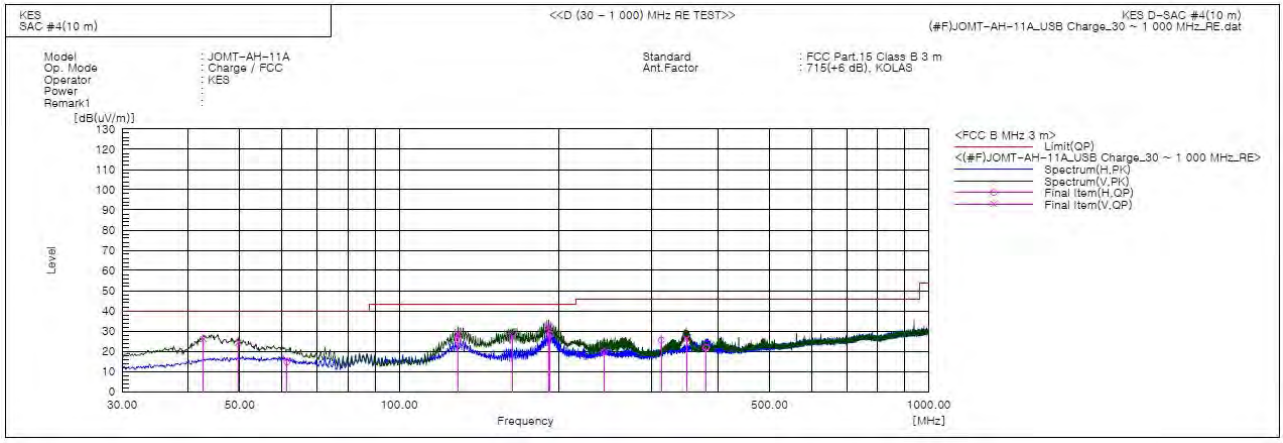
■ Cradle Charge Mode



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	49.521	V	40.6	-21.5	19.1	40.0	20.9	115.0	263.0	
2	53.765	H	38.8	-21.7	17.1	40.0	22.9	290.0	108.0	
3	63.344	H	40.9	-23.3	17.6	40.0	22.4	214.0	146.0	
4	130.759	H	41.5	-25.9	15.6	43.5	27.9	195.0	101.0	
5	131.850	V	43.6	-25.9	17.7	43.5	25.8	100.0	34.0	
6	249.948	V	41.4	-20.0	21.4	46.0	24.6	132.0	308.0	
7	312.513	H	44.0	-18.3	25.7	46.0	20.3	400.0	159.0	
8	400.783	V	38.6	-15.4	23.2	46.0	22.8	110.0	341.0	
9	404.420	H	34.6	-15.4	19.2	46.0	26.8	331.0	346.0	
10	437.521	H	38.0	-14.7	23.3	46.0	22.7	400.0	293.0	
11	437.521	V	43.3	-14.7	28.6	46.0	17.4	109.0	126.0	
12	562.530	V	37.2	-11.3	25.9	46.0	20.1	100.0	316.0	

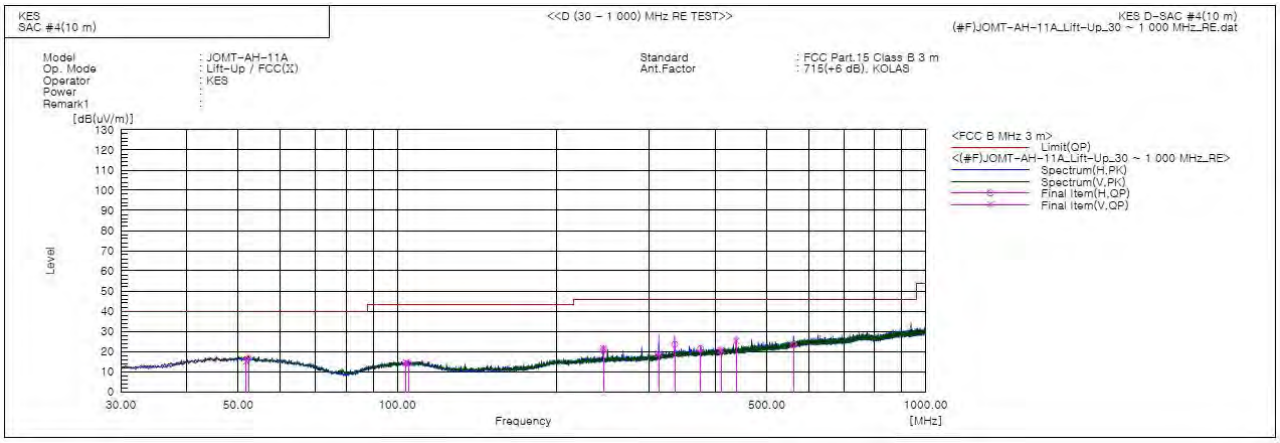
■ USB Charge Mode



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	42.731	V	48.3	-22.2	26.1	40.0	13.9	119.0	212.0	
2	49.643	V	45.7	-21.5	24.2	40.0	15.8	107.0	170.0	
3	61.404	H	37.4	-22.7	14.7	40.0	25.3	396.0	43.0	
4	129.183	V	54.4	-25.8	28.6	43.5	14.9	117.0	235.0	
5	129.183	H	51.2	-25.8	25.4	43.5	18.1	400.0	251.0	
6	163.981	V	52.4	-25.1	27.3	43.5	16.2	109.0	322.0	
7	191.626	V	54.8	-22.5	32.3	43.5	11.2	128.0	189.0	
8	192.718	H	50.9	-22.4	28.5	43.5	15.0	372.0	111.0	
9	243.521	H	39.8	-20.2	19.6	46.0	26.4	391.0	183.0	
10	312.513	H	43.8	-18.3	25.5	46.0	20.5	400.0	202.0	
11	348.403	V	42.6	-16.4	26.2	46.0	19.8	172.0	238.0	
12	379.685	H	37.8	-15.9	21.9	46.0	24.1	322.0	235.0	

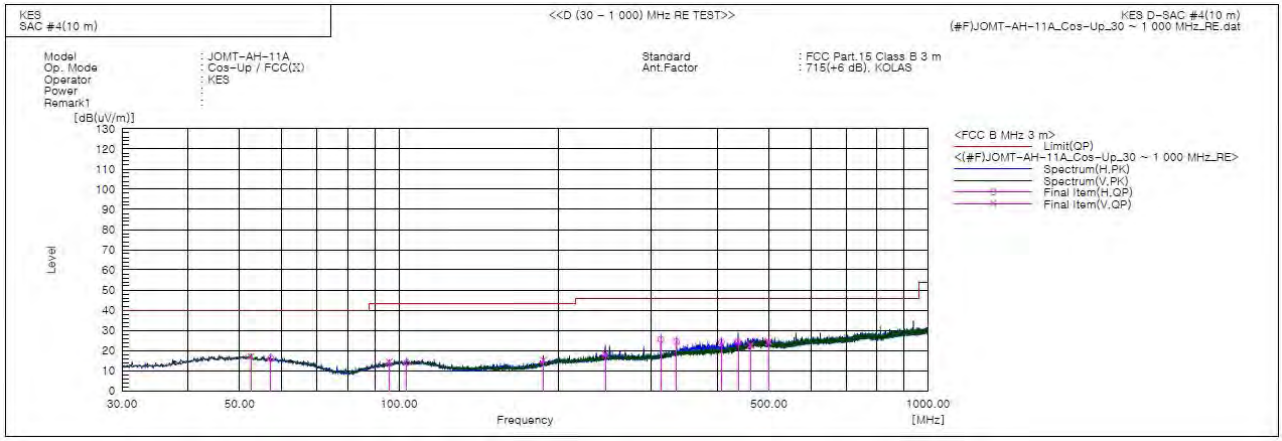
■ Lift-Up Mode



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	51.825	V	36.6	-21.5	15.1	40.0	24.9	100.0	193.0	
2	52.310	H	38.0	-21.6	16.4	40.0	23.6	400.0	338.0	
3	103.841	V	37.7	-23.1	14.6	43.5	28.9	106.0	48.0	
4	105.175	H	37.1	-23.0	14.1	43.5	29.4	394.0	138.0	
5	245.461	V	41.6	-20.2	21.4	46.0	24.6	209.0	202.0	
6	245.583	H	40.9	-20.2	20.7	46.0	25.3	395.0	263.0	
7	312.513	V	37.2	-18.3	18.9	46.0	27.1	110.0	334.0	
8	334.823	H	40.4	-16.9	23.5	46.0	22.5	342.0	282.0	
9	374.956	H	37.4	-16.0	21.4	46.0	24.6	400.0	219.0	
10	409.755	V	36.0	-15.3	20.7	46.0	25.3	119.0	63.0	
11	437.521	V	40.0	-14.7	25.3	46.0	20.7	100.0	115.0	
12	562.530	H	34.4	-11.3	23.1	46.0	22.9	228.0	175.0	

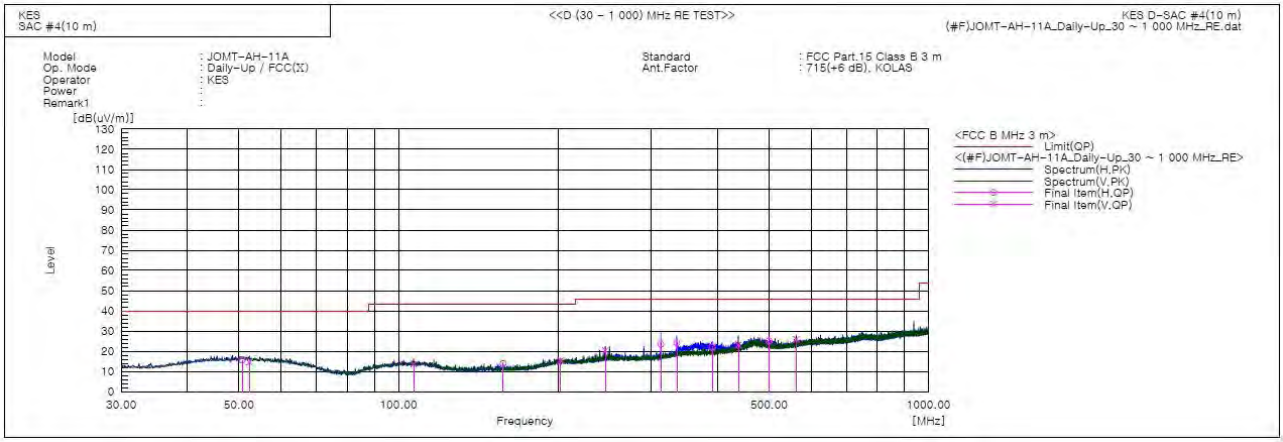
■ Cos-Up Mode



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	52.553	V	38.6	-21.6	17.0	40.0	23.0	114.0	257.0	
2	57.281	H	38.2	-22.1	16.1	40.0	23.9	347.0	260.0	
3	95.839	V	38.3	-23.9	14.4	43.5	29.1	118.0	20.0	
4	103.478	H	37.0	-23.1	13.9	43.5	29.6	400.0	215.0	
5	187.504	V	38.4	-23.2	15.2	43.5	28.3	233.0	198.0	
6	245.461	V	38.3	-20.2	18.1	46.0	27.9	194.0	213.0	
7	312.513	H	43.9	-18.3	25.6	46.0	20.4	370.0	82.0	
8	334.580	H	41.3	-16.9	24.4	46.0	21.6	400.0	100.0	
9	406.845	H	39.3	-15.3	24.0	46.0	22.0	288.0	105.0	
10	437.521	H	39.0	-14.7	24.3	46.0	21.7	400.0	101.0	
11	462.014	V	36.6	-14.1	22.5	46.0	23.5	107.0	176.0	
12	499.965	V	37.3	-13.0	24.3	46.0	21.7	100.0	16.0	

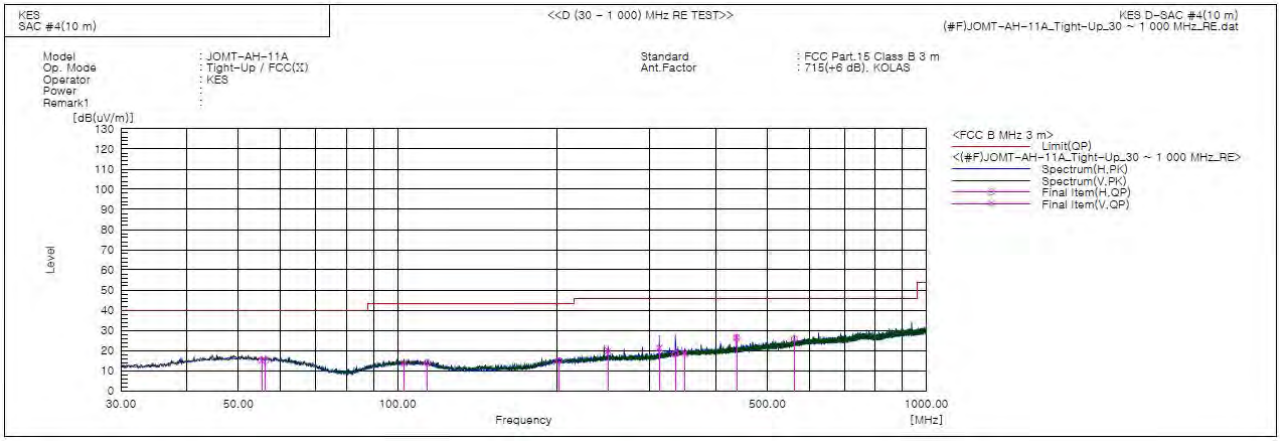
■ Daily-Up Mode



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	50.734	H	37.0	-21.5	15.5	40.0	24.5	400.0	243.0	
2	52.310	V	36.1	-21.6	14.5	40.0	25.5	133.0	29.0	
3	106.751	V	36.6	-23.0	13.6	43.5	29.9	100.0	56.0	
4	157.434	H	39.3	-25.4	13.9	43.5	29.6	400.0	308.0	
5	202.175	V	36.9	-21.5	15.4	43.5	28.1	106.0	11.0	
6	245.461	V	40.6	-20.2	20.4	46.0	25.6	121.0	37.0	
7	312.513	H	41.8	-18.3	23.5	46.0	22.5	377.0	83.0	
8	334.823	H	41.1	-16.9	24.2	46.0	21.8	360.0	83.0	
9	390.961	H	37.7	-15.6	22.1	46.0	23.9	390.0	87.0	
10	437.521	V	37.9	-14.7	23.2	46.0	22.8	100.0	115.0	
11	499.965	H	38.2	-13.0	25.2	46.0	20.8	400.0	115.0	
12	562.530	V	37.3	-11.3	26.0	46.0	20.0	115.0	15.0	

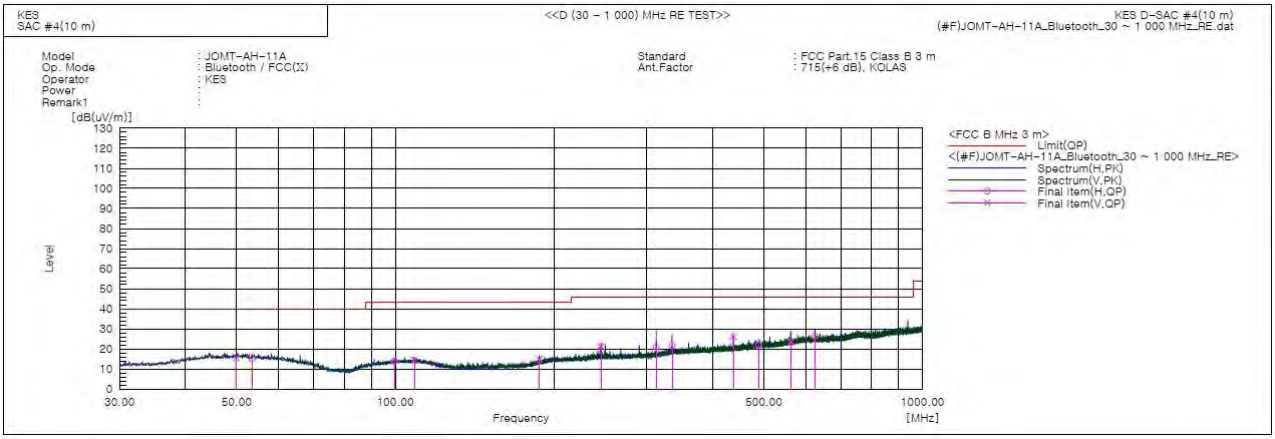
■ Tight-Up Mode



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	55.341	V	37.0	-21.9	15.1	40.0	24.9	100.0	11.0	
2	56.311	H	36.9	-22.0	14.9	40.0	25.1	400.0	274.0	
3	102.871	V	36.8	-23.1	13.7	43.5	29.8	116.0	204.0	
4	113.784	H	37.3	-23.3	14.0	43.5	29.5	376.0	56.0	
5	202.054	H	36.4	-21.5	14.9	43.5	28.6	391.0	86.0	
6	249.948	V	39.9	-20.0	19.9	46.0	26.1	148.0	175.0	
7	312.513	V	39.5	-18.3	21.2	46.0	24.8	100.0	297.0	
8	335.186	H	35.2	-16.9	18.3	46.0	27.7	269.0	253.0	
9	349.009	V	35.0	-16.4	18.6	46.0	27.4	121.0	197.0	
10	437.521	V	41.2	-14.7	26.5	46.0	19.5	109.0	272.0	
11	437.537	H	41.0	-14.7	26.3	46.0	19.7	400.0	90.0	
12	562.530	H	37.1	-11.3	25.8	46.0	20.2	400.0	237.0	

■ Bluetooth Mode



Final Result

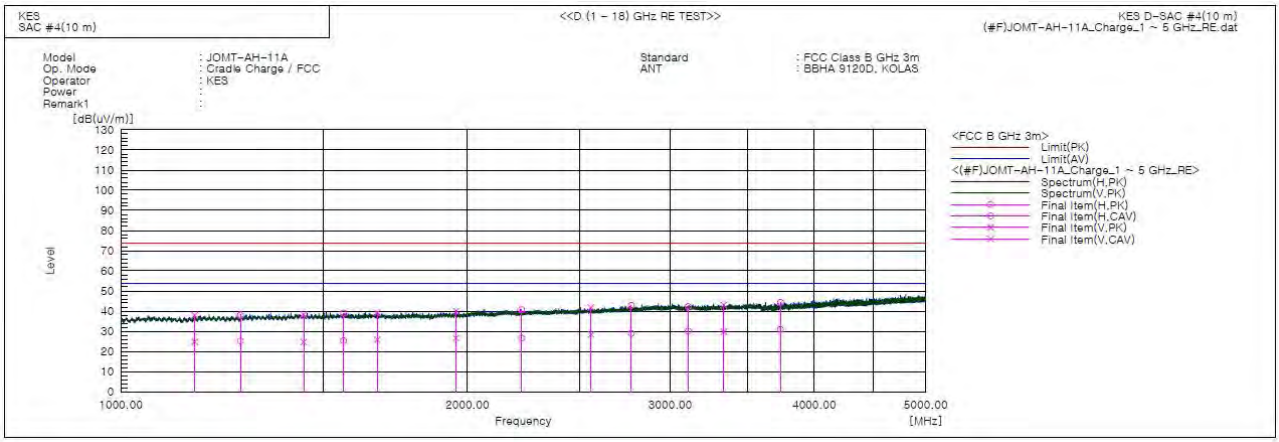
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	49.885	V	37.0	-21.5	15.5	40.0	24.5	114.0	179.0	
2	53.523	H	36.6	-21.7	14.9	40.0	25.1	400.0	271.0	
3	99.598	H	37.0	-23.1	13.9	43.5	29.6	315.0	56.0	
4	108.813	V	37.5	-23.0	14.5	43.5	29.0	162.0	23.0	
5	187.504	V	38.1	-23.2	14.9	43.5	28.6	128.0	246.0	
6	245.461	V	41.4	-20.2	21.2	46.0	24.8	110.0	216.0	
7	312.513	H	39.2	-18.3	20.9	46.0	25.1	400.0	100.0	
8	334.823	H	38.6	-16.9	21.7	46.0	24.3	310.0	301.0	
9	437.521	V	40.8	-14.7	26.1	46.0	19.9	117.0	30.0	
10	488.568	H	35.2	-13.3	21.9	46.0	24.1	302.0	123.0	
11	562.530	V	34.8	-11.3	23.5	46.0	22.5	106.0	89.0	
12	625.095	H	36.1	-9.7	26.4	46.0	19.6	400.0	279.0	

it was determined that X orientation was worst-case orientation; therefore, al final radiated testing was performed with the EUT in X orientation.

♦ Calculation – SAC #4(10 m)
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 ㎓)

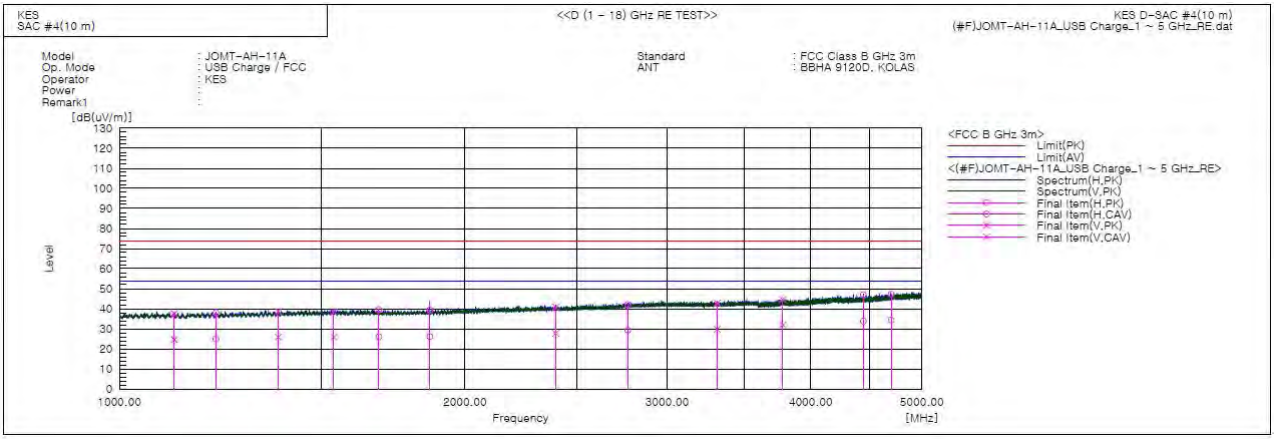
■ Cradle Charge Mode



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1159.241	V	42.5	29.3	-4.5	38.0	24.8	74.0	54.0	36.0	29.2	115.0	236.0	
2	1270.095	H	41.9	29.0	-3.8	38.1	25.2	74.0	54.0	35.9	28.8	400.0	148.0	
3	1441.427	V	41.1	27.5	-2.8	38.3	24.7	74.0	54.0	35.7	29.3	119.0	357.0	
4	1560.520	H	41.2	27.6	-2.2	39.0	25.4	74.0	54.0	35.0	28.6	384.0	155.0	
5	1669.070	V	41.0	27.5	-1.7	39.3	25.8	74.0	54.0	34.7	28.2	102.0	107.0	
6	1954.154	V	40.5	27.1	-0.4	40.1	26.7	74.0	54.0	33.9	27.3	182.0	259.0	
7	2228.924	H	39.8	25.8	0.9	40.7	26.7	74.0	54.0	33.3	27.3	400.0	241.0	
8	2560.265	V	39.2	25.8	2.6	41.8	28.4	74.0	54.0	32.2	25.6	110.0	177.0	
9	2775.775	H	39.3	25.5	3.5	42.8	29.0	74.0	54.0	31.2	25.0	355.0	185.0	
10	3108.732	H	37.5	25.3	4.8	42.3	30.1	74.0	54.0	31.7	23.9	387.0	289.0	
11	3338.106	V	37.6	24.3	5.5	43.1	29.8	74.0	54.0	30.9	24.2	100.0	270.0	
12	3739.399	H	37.2	23.8	7.1	44.3	30.9	74.0	54.0	29.7	23.1	100.0	241.0	

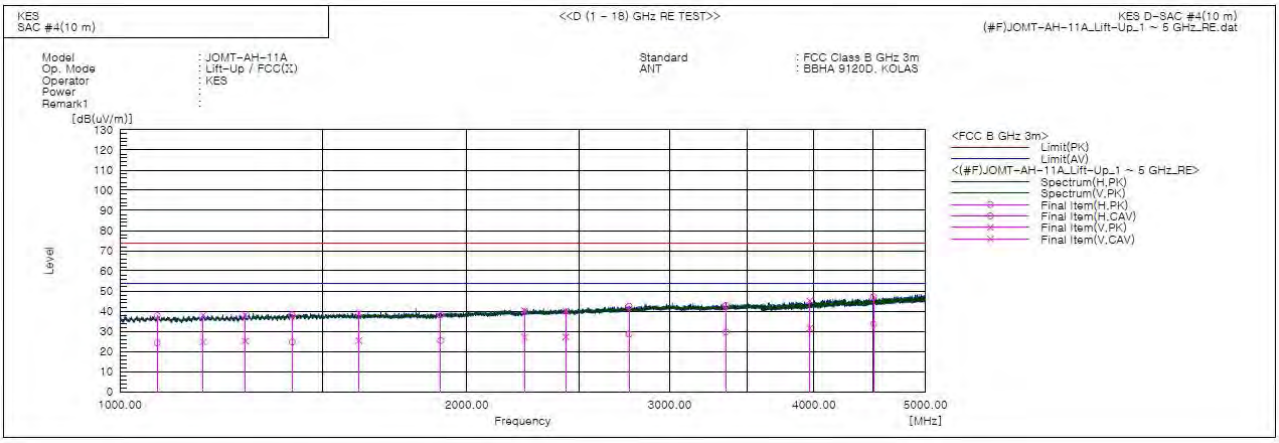
■ USB Charge Mode



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1116.266	V	42.3	29.3	-4.7	37.6	24.6	74.0	54.0	36.4	29.4	124.0	104.0	
2	1213.590	H	42.2	29.1	-4.1	38.1	25.0	74.0	54.0	35.9	29.0	385.0	271.0	
3	1374.427	V	41.9	29.1	-3.2	38.7	25.9	74.0	54.0	35.3	28.1	100.0	127.0	
4	1536.451	V	40.7	28.2	-2.3	38.4	25.9	74.0	54.0	35.6	28.1	128.0	288.0	
5	1682.074	H	41.2	27.6	-1.6	39.6	26.0	74.0	54.0	34.4	28.0	370.0	3.0	
6	1863.944	H	40.2	26.9	-0.8	39.4	26.1	74.0	54.0	34.6	27.9	320.0	314.0	
7	2399.258	V	39.1	26.0	1.8	40.9	27.8	74.0	54.0	33.1	26.2	100.0	324.0	
8	2772.516	H	38.6	25.8	3.5	42.1	29.3	74.0	54.0	31.9	24.7	400.0	168.0	
9	3316.040	V	37.5	24.4	5.4	42.9	29.8	74.0	54.0	31.1	24.2	147.0	7.0	
10	3781.586	V	37.3	24.6	7.4	44.7	32.0	74.0	54.0	29.3	22.0	132.0	242.0	
11	4447.055	H	37.1	23.9	9.9	47.0	33.8	74.0	54.0	27.0	20.2	400.0	346.0	
12	4699.813	H	36.0	23.1	11.3	47.3	34.4	74.0	54.0	26.7	19.6	100.0	134.0	

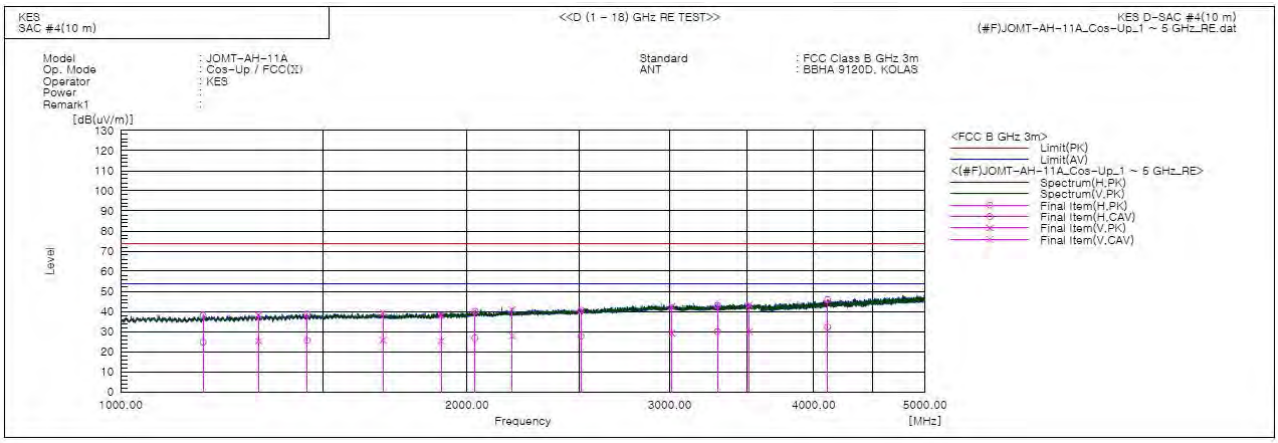
■ Lift-Up Mode



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1077.158	H	42.8	29.3	-5.0	37.8	24.3	74.0	54.0	36.2	29.7	299.0	1.0	
2	1180.522	V	42.3	29.0	-4.3	38.0	24.7	74.0	54.0	36.0	29.3	106.0	121.0	
3	1284.187	V	41.9	28.9	-3.7	38.2	25.2	74.0	54.0	35.8	28.8	100.0	259.0	
4	1410.487	H	41.1	27.6	-3.0	38.1	24.6	74.0	54.0	35.9	29.4	366.0	6.0	
5	1611.516	V	41.2	27.4	-2.0	39.2	25.4	74.0	54.0	34.8	28.6	201.0	166.0	
6	1897.980	H	38.9	26.1	-0.7	38.2	25.4	74.0	54.0	35.8	28.6	350.0	349.0	
7	2244.745	V	39.3	26.1	1.0	40.3	27.1	74.0	54.0	33.7	26.9	109.0	322.0	
8	2436.518	V	38.2	25.2	2.0	40.2	27.2	74.0	54.0	33.8	26.8	111.0	6.0	
9	2765.420	H	39.1	25.2	3.4	42.5	28.6	74.0	54.0	31.5	25.4	395.0	174.0	
10	3357.069	H	37.3	24.1	5.5	42.8	29.6	74.0	54.0	31.2	24.4	327.0	338.0	
11	3967.119	V	36.9	23.2	8.3	45.2	31.5	74.0	54.0	28.8	22.5	271.0	278.0	
12	4508.190	H	36.8	23.3	10.3	47.1	33.6	74.0	54.0	26.9	20.4	400.0	6.0	

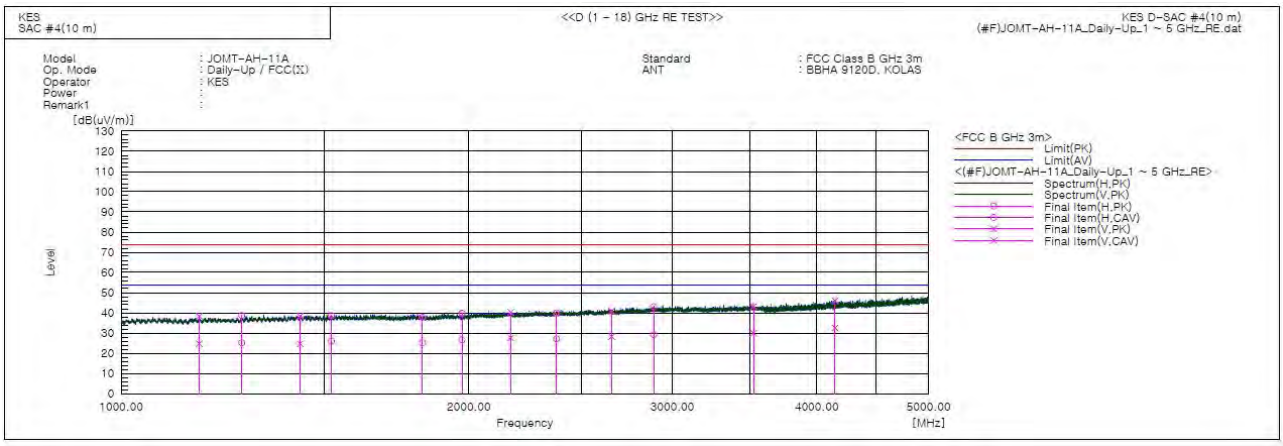
■ Cos-Up Mode



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1179.102	H	42.4	29.0	-4.3	38.1	24.7	74.0	54.0	35.9	29.3	395.0	352.0	
2	1317.550	V	41.7	28.7	-3.5	38.2	25.2	74.0	54.0	35.8	28.8	110.0	74.0	
3	1451.914	H	41.4	28.3	-2.7	38.7	25.6	74.0	54.0	35.3	28.4	320.0	196.0	
4	1689.857	V	41.1	27.3	-1.6	39.5	25.7	74.0	54.0	34.5	28.3	116.0	121.0	
5	1898.920	V	38.8	26.0	-0.7	38.1	25.3	74.0	54.0	35.9	28.7	142.0	299.0	
6	2031.387	H	40.2	26.9	-0.1	40.1	26.8	74.0	54.0	33.9	27.2	399.0	174.0	
7	2188.022	V	40.2	27.1	0.7	40.9	27.8	74.0	54.0	33.1	26.2	115.0	6.0	
8	2511.592	H	38.2	25.3	2.4	40.6	27.7	74.0	54.0	33.4	26.3	400.0	137.0	
9	3013.387	V	37.9	24.5	4.6	42.5	29.1	74.0	54.0	31.5	24.9	119.0	293.0	
10	3300.536	H	37.6	24.6	5.4	43.0	30.0	74.0	54.0	31.0	24.0	400.0	14.0	
11	3517.502	V	37.4	24.1	5.9	43.3	30.0	74.0	54.0	30.7	24.0	110.0	156.0	
12	4114.517	H	36.9	23.3	9.0	45.9	32.3	74.0	54.0	28.1	21.7	326.0	344.0	

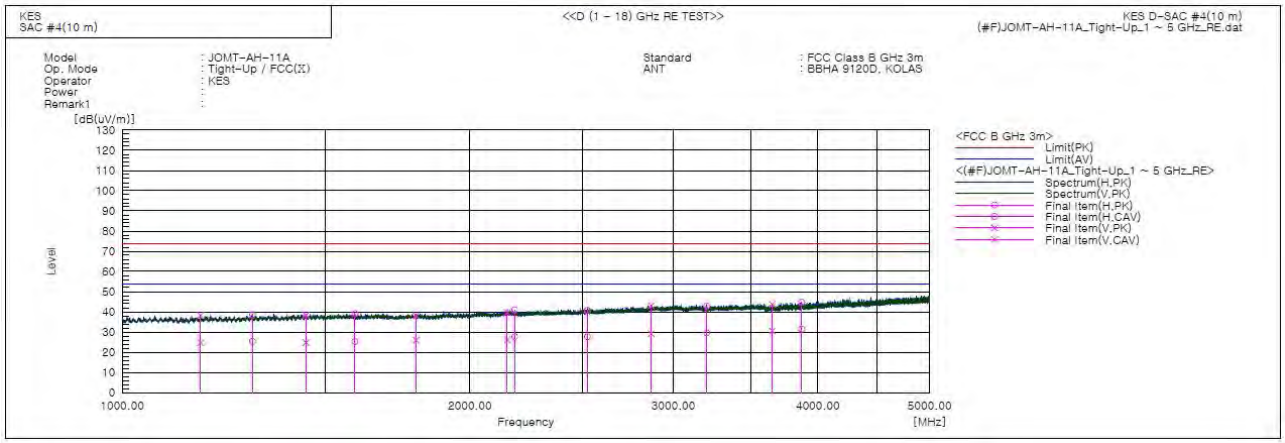
■ Daily-Up Mode



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1168.241	V	42.8	29.1	-4.4	38.4	24.7	74.0	54.0	35.6	29.3	112.0	148.0	
2	1271.592	H	42.5	29.0	-3.8	38.7	25.2	74.0	54.0	35.3	28.8	400.0	326.0	
3	1428.304	V	41.3	27.6	-2.9	38.4	24.7	74.0	54.0	35.6	29.3	174.0	322.0	
4	1520.388	H	41.1	28.5	-2.4	38.7	26.1	74.0	54.0	35.3	27.9	320.0	47.0	
5	1823.127	H	38.9	26.2	-1.0	37.9	25.2	74.0	54.0	36.1	28.8	220.0	241.0	
6	1972.165	H	40.1	27.0	-0.3	39.8	26.7	74.0	54.0	34.2	27.3	400.0	252.0	
7	2173.490	V	39.8	27.1	0.6	40.4	27.7	74.0	54.0	33.6	26.3	110.0	355.0	
8	2380.924	H	38.3	25.4	1.7	40.0	27.1	74.0	54.0	34.0	26.9	394.0	349.0	
9	2658.112	V	37.9	25.3	3.0	40.9	28.3	74.0	54.0	33.1	25.7	265.0	323.0	
10	2890.327	H	39.1	25.2	4.0	43.1	29.2	74.0	54.0	30.9	24.8	350.0	56.0	
11	3526.418	V	37.3	24.1	5.9	43.2	30.0	74.0	54.0	30.8	24.0	116.0	126.0	
12	4149.507	V	36.9	23.3	9.2	46.1	32.5	74.0	54.0	27.9	21.5	100.0	200.0	

■ Tight-Up Mode

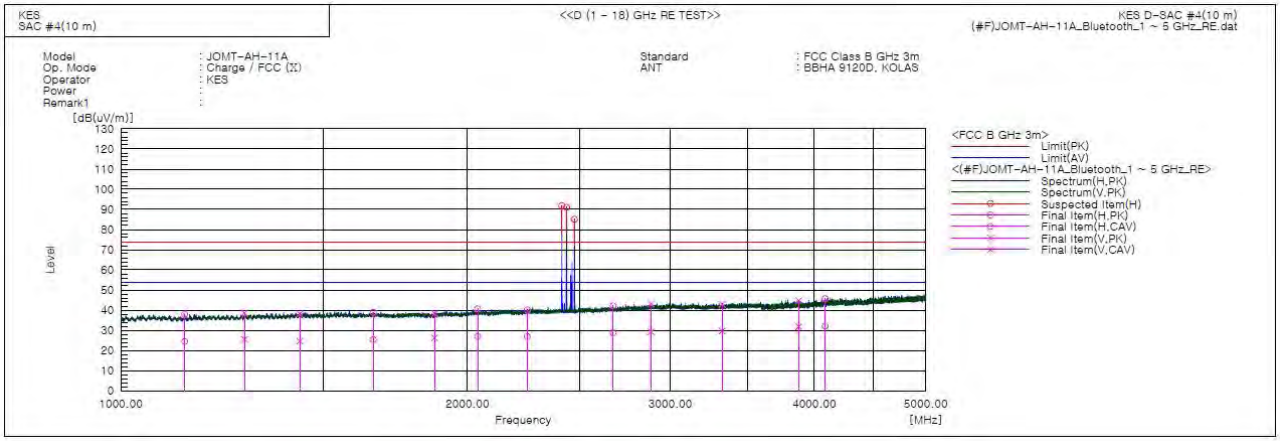


Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1169.195	V	42.7	29.1	-4.4	38.3	24.7	74.0	54.0	35.7	29.3	127.0	80.0	
2	1296.595	H	42.2	29.0	-3.6	38.6	25.4	74.0	54.0	35.4	28.6	400.0	267.0	
3	1442.029	V	41.1	27.5	-2.8	38.3	24.7	74.0	54.0	35.7	29.3	115.0	111.0	
4	1590.535	H	41.3	27.4	-2.1	39.2	25.3	74.0	54.0	34.8	28.7	374.0	74.0	
5	1796.184	V	39.2	27.1	-1.1	38.1	26.0	74.0	54.0	35.9	28.0	100.0	85.0	
6	2154.102	V	39.3	25.8	0.5	39.8	26.3	74.0	54.0	34.2	27.7	139.0	36.0	
7	2187.199	H	40.3	27.1	0.7	41.0	27.8	74.0	54.0	33.0	26.2	366.0	18.0	
8	2527.457	H	38.3	25.3	2.4	40.7	27.7	74.0	54.0	33.3	26.3	400.0	7.0	
9	2869.219	V	39.2	25.3	3.9	43.1	29.2	74.0	54.0	30.9	24.8	103.0	33.0	
10	3205.987	H	37.8	24.5	5.1	42.9	29.6	74.0	54.0	31.1	24.4	325.0	44.0	
11	3653.449	V	37.3	24.1	6.5	43.8	30.6	74.0	54.0	30.2	23.4	102.0	80.0	
12	3874.265	H	36.9	23.5	7.9	44.8	31.4	74.0	54.0	29.2	22.6	400.0	130.0	

■ Bluetooth Mode

- (1 ~ 5) GHz



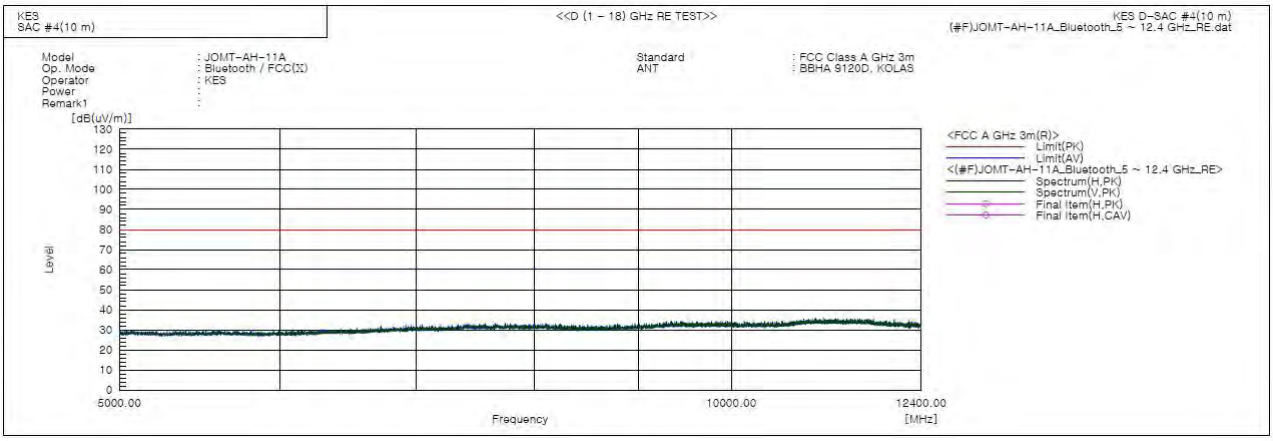
Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1136.005	H	42.6	29.1	-4.6	38.0	24.5	74.0	54.0	36.0	29.5	371.0	51.0	
2	1280.509	V	42.3	29.3	-3.7	38.6	25.6	74.0	54.0	35.4	28.4	121.0	229.0	
3	1429.992	V	41.1	27.5	-2.9	38.2	24.6	74.0	54.0	35.8	29.4	112.0	236.0	
4	1656.129	H	40.7	27.2	-1.8	38.9	25.4	74.0	54.0	35.1	28.6	351.0	77.0	
5	1872.366	V	39.2	27.1	-0.8	38.4	26.3	74.0	54.0	35.6	27.7	119.0	132.0	
6	2041.070	H	40.6	26.9	0.0	40.6	26.9	74.0	54.0	33.4	27.1	389.0	74.0	
7	2253.158	H	39.2	25.8	1.0	40.2	26.8	74.0	54.0	33.8	27.2	381.0	311.0	
8	2675.577	H	39.2	25.8	3.0	42.2	28.8	74.0	54.0	31.8	25.2	350.0	3.0	
9	2885.903	V	39.1	25.2	4.0	43.1	29.2	74.0	54.0	30.9	24.8	110.0	15.0	
10	3327.643	V	37.6	24.3	5.4	43.0	29.7	74.0	54.0	31.0	24.3	165.0	6.0	
11	3877.202	V	36.8	23.9	7.9	44.7	31.8	74.0	54.0	29.3	22.2	100.0	151.0	
12	4088.000	H	36.8	23.3	8.9	45.7	32.2	74.0	54.0	28.3	21.8	200.0	292.0	
13	2414.500	H	-------	-------	1.9	-------	-------	74.0	54.0	-------	-------	100.0	308.0	
14	2438.000	H	-------	-------	2.0	-------	-------	74.0	54.0	-------	-------	200.0	352.0	
15	2476.500	H	-------	-------	2.2	-------	-------	74.0	54.0	-------	-------	100.0	345.0	

* Exclusion bands

- Fundamental Frequency : 2.4 GHz Band

- (5 ~ 12.4) GHz



* No spurious emission were detected above 5 GHz.

it was determined that X orientation was worst-case orientation; therefore, al final radiated testing was performed with the EUT in X orientation.

♦ Calculation

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

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