



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 : 2AQZJOMT-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.

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0502

Page (2) of (54)

REPORT REVISION HISTORY

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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd. This document may be altered or revised by KES Co., Ltd. personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by KES Co., Ltd. will constitute fraud and shall nullify the document.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (3) of (54)

TABLE OF CONTENTS

1.0	General Product Description.....	4
1.1	Test Voltage & Frequency	5
1.2	Variant Model Differences.....	5
1.3	Device Modifications	5
1.4	Equipment Under Test.....	5
1.5	Support Equipments	5
1.6	External I/O Cabling	6
1.7	EUT Operating Mode(s)	7
1.8	Configuration.....	8
1.9	Remarks when standards applied	10
1.10	Calibration Details of Equipment Used for Measurement.....	10
1.11	Test Facility	10
1.12	Laboratory Accreditations and Listings	10
2.0	Test Regulations.....	11
2.1	Conducted Emissions at Mains Power Ports.....	13
2.2	Radiated Electric Field Emissions(Below 1 GHz)	14
2.3	Radiated Electric Field Emissions(Above 1 GHz)	15
APPENDIX A – TEST DATA.....		16
Conducted Emissions at Mains Power Ports.....		16
Radiated Electric Field Emissions(Below 1 GHz)		21
Radiated Electric Field Emissions(Above 1 GHz)		28
Test Setup Photos and Configuration		36
Conducted Emissions at Mains Power Ports.....		36
Radiated Electric Field Emissions(Below 1 GHz)		38
Radiated Electric Field Emissions(Above 1 GHz)		42
EUT External Photographs		46
EUT Internal Photographs		47

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (4) of (54)

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 GHz
Wireless	802.15 Bluetooth Low Energy 4.2
Rated Voltage	Input : DC 5 V, 2 A Internal Battery : 3.65 V, 2,750 mAh (Lithium Ion Battery)
Environment condition	Temp. : 0 ~ 50 °C Humidity : 30 ~ 90 %R.H.
Dimension	35 mm * 65 mm * 210 mm
Weight	202 g

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



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(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

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (7) of (54)

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.

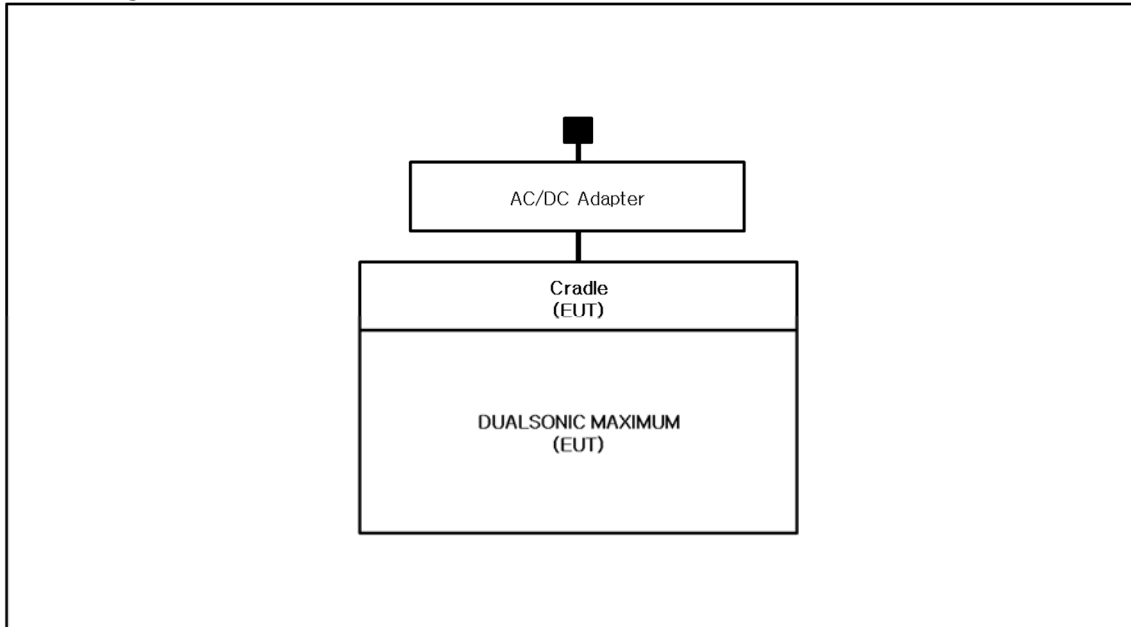
EUT Test operating S/W		
Name	Version	Manufacture Company
DUALSONIC App	-	JION MEDITECH

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

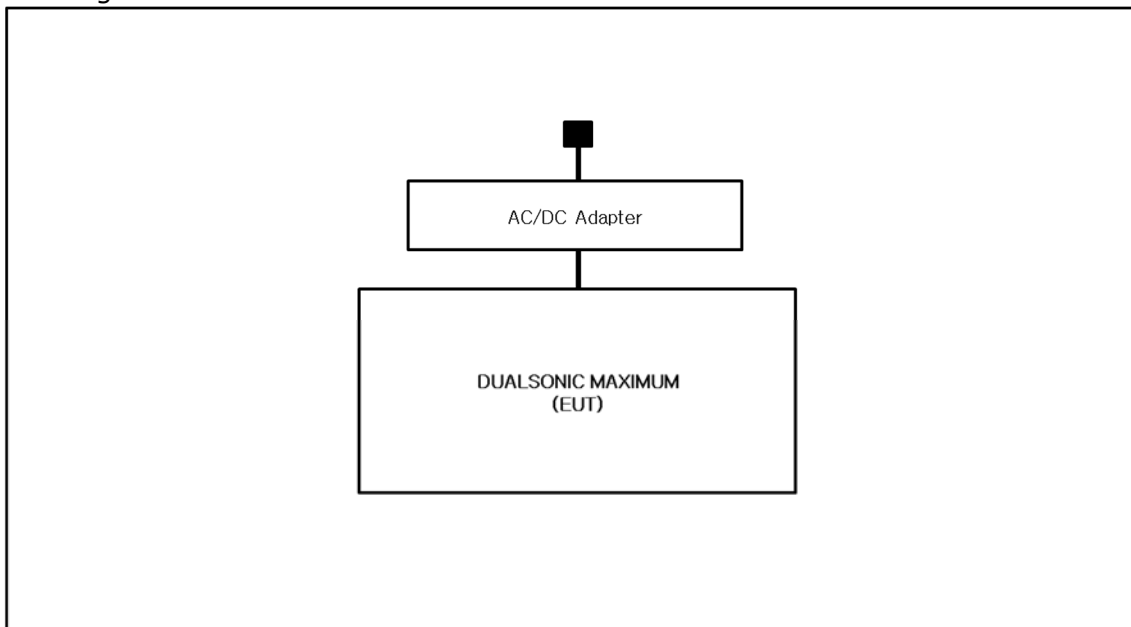
1.8 Configuration

■ AC Main
 □ DC Main

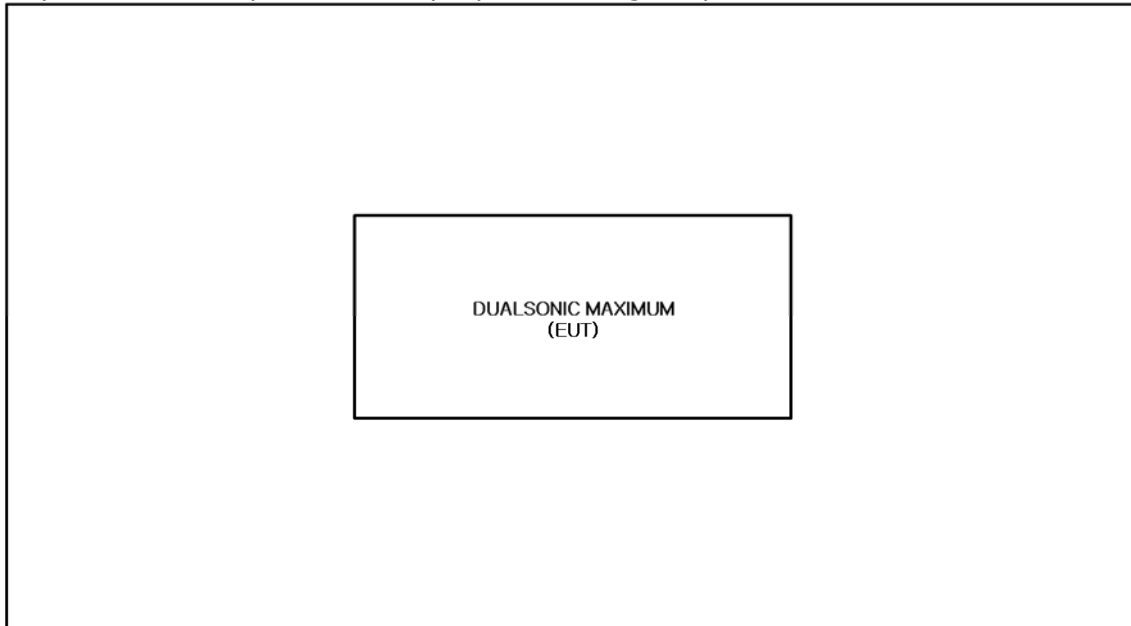
■ Cradle Charge Mode



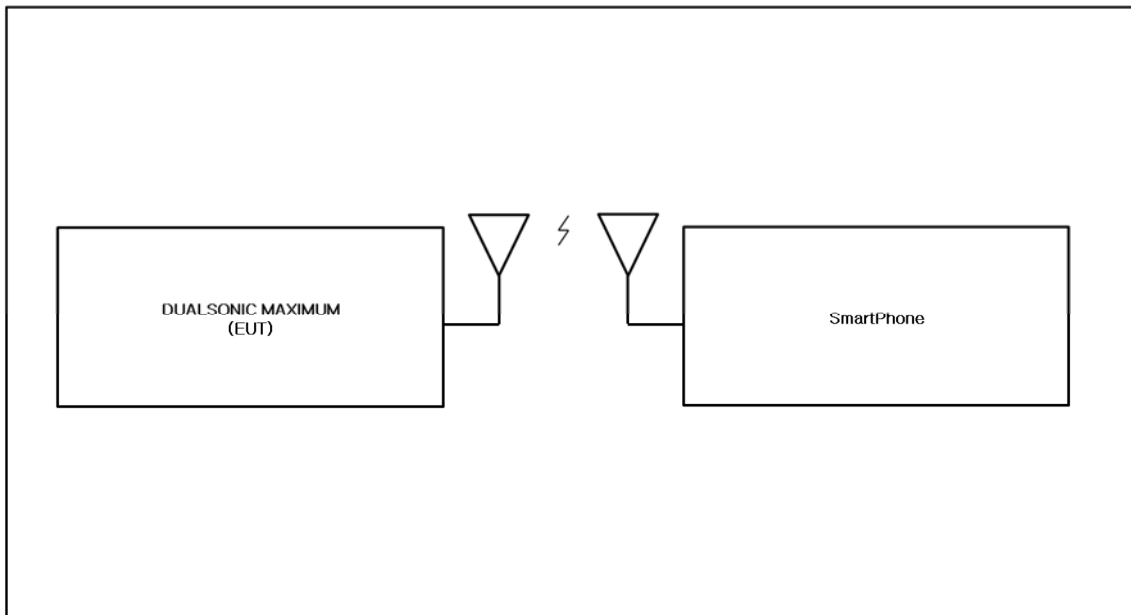
■ USB Charge Mode



■ 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



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (12) of (54)

- | | | |
|--|----------------------------------|---|
| ☐ 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 | | |

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0502

Page (13) of (54)

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) °C

Relative Humidity: (47,1 ± 0,1) % R.H.

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee Appendix A for test data.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0502

Page (14) of (54)

2.2 Radiated Electric Field Emissions(Below 1 GHz)

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) °C

Relative Humidity: (46,3 ± 0,3) % R.H.

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

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.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

2.3 Radiated Electric Field Emissions(Above 1 GHz)

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) °C

Relative Humidity: (46,8 ± 0,4) % R.H.

Frequency Range of Measurement

1 GHz to 12.4 GHz

Instrument Settings

IF Band Width: 1 MHz

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

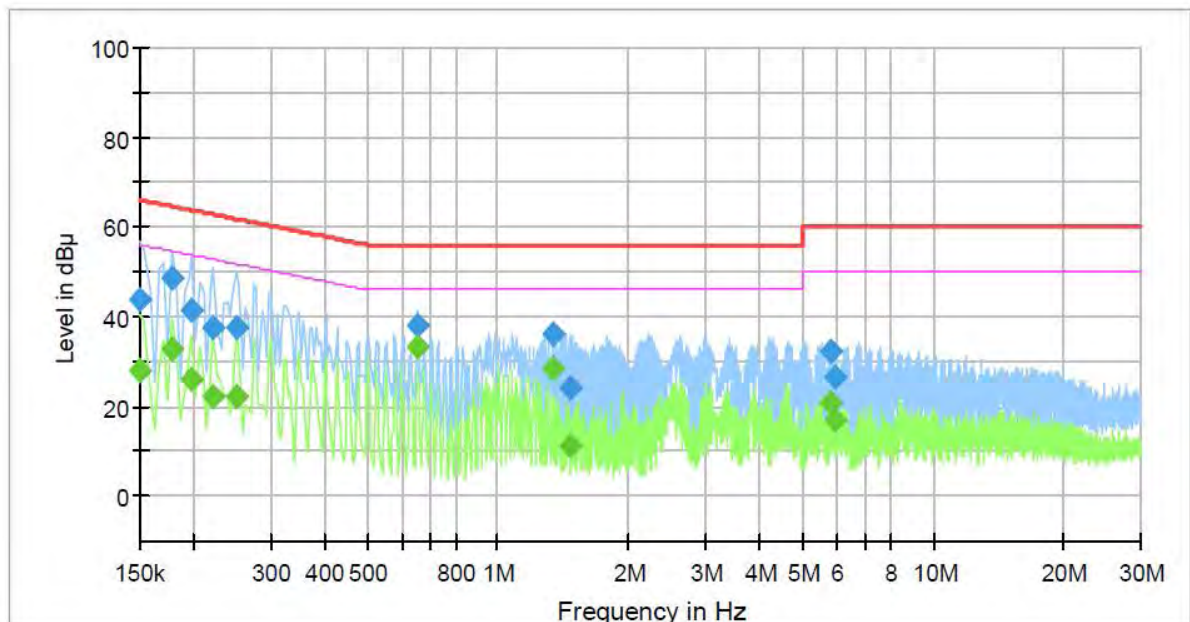
Conducted Emissions at Mains Power Ports

■ Cradle Charge Mode

HOT LINE

Common Information

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





KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (17) of (54)

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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

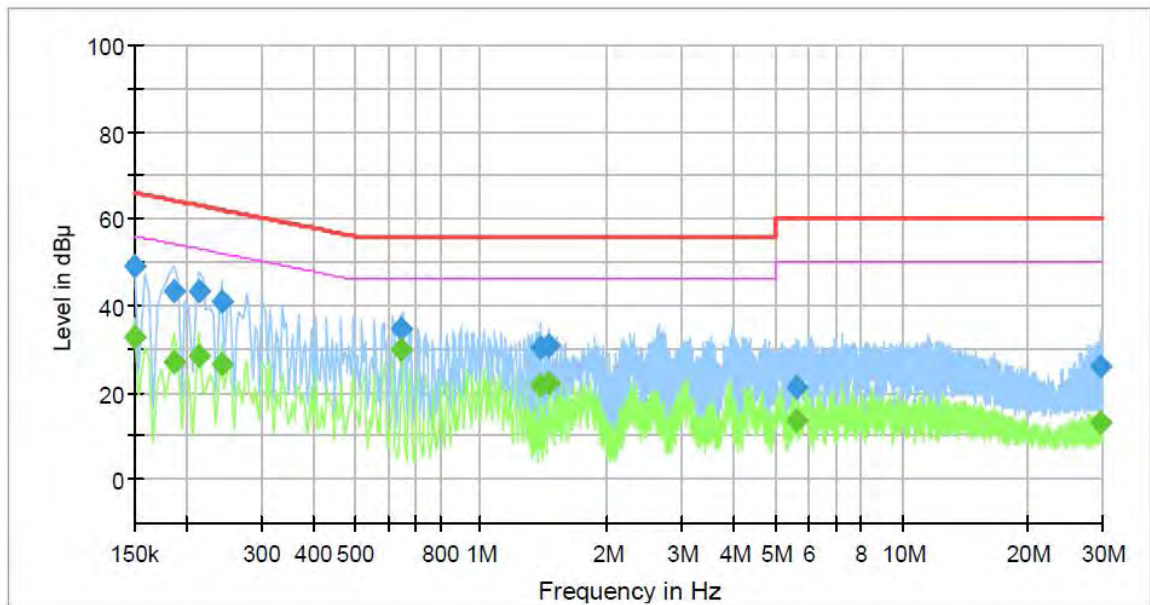
3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (18) of (54)

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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

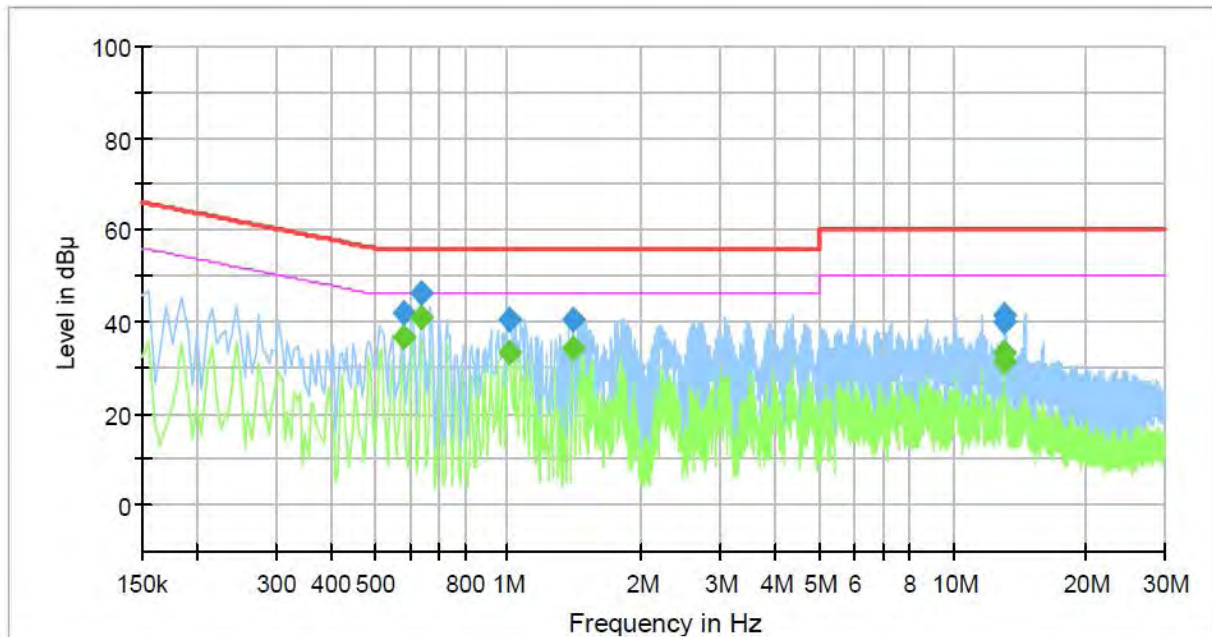
Report No.:
KES-EM-21T0502
Page (19) of (54)

■ 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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

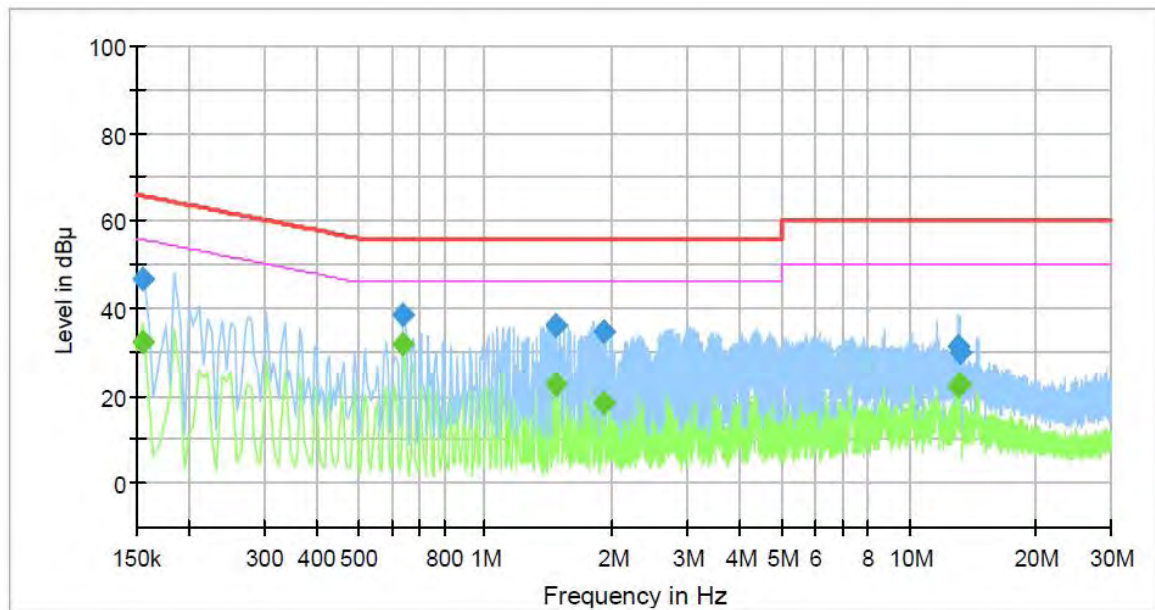
3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (20) of (54)

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))

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



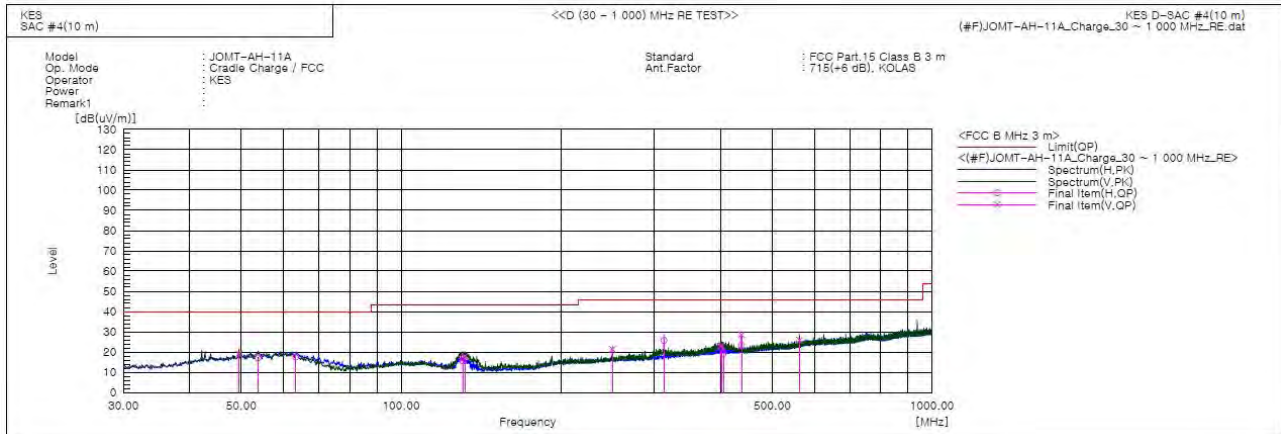
KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (21) of (54)

Radiated Electric Field Emissions(Below 1 GHz)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

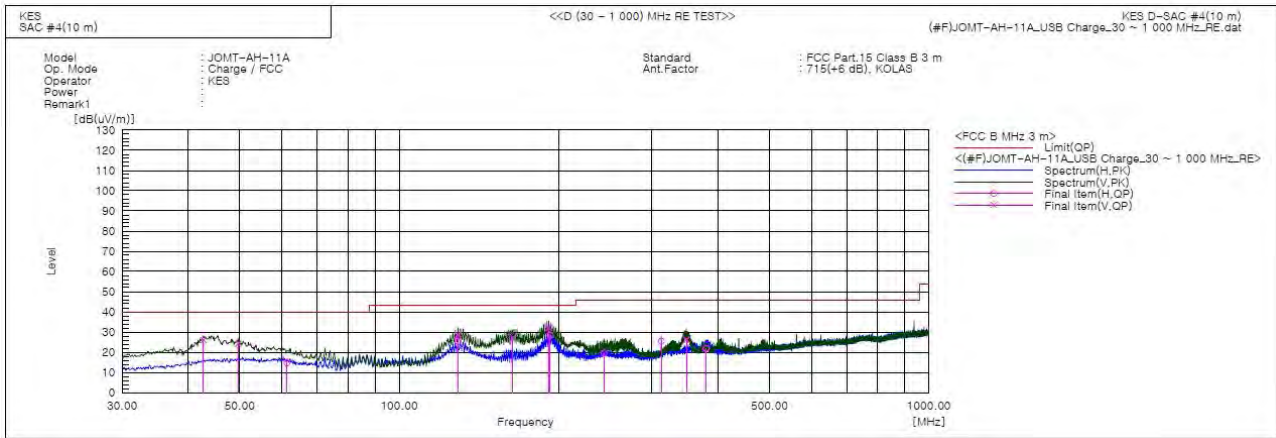


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (22) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

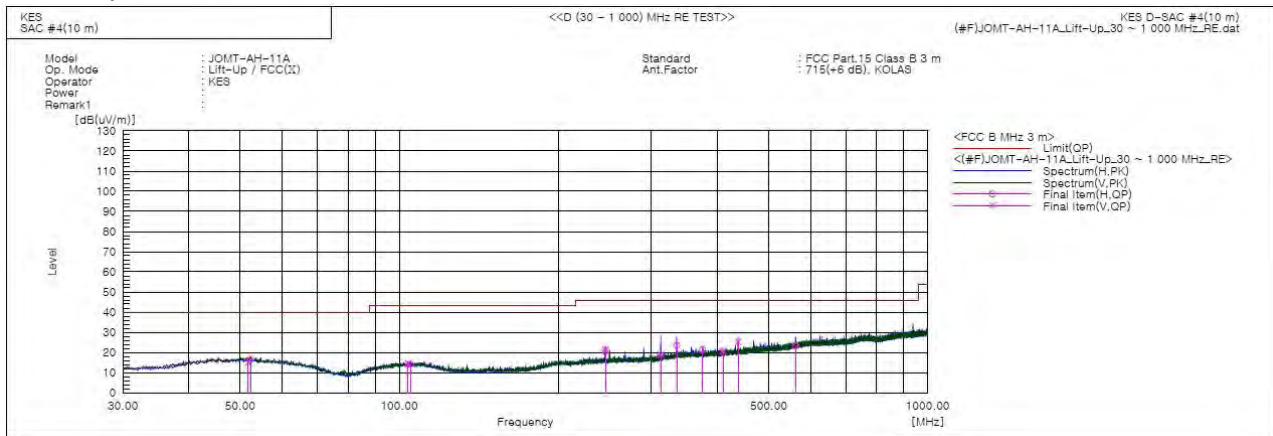


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (23) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

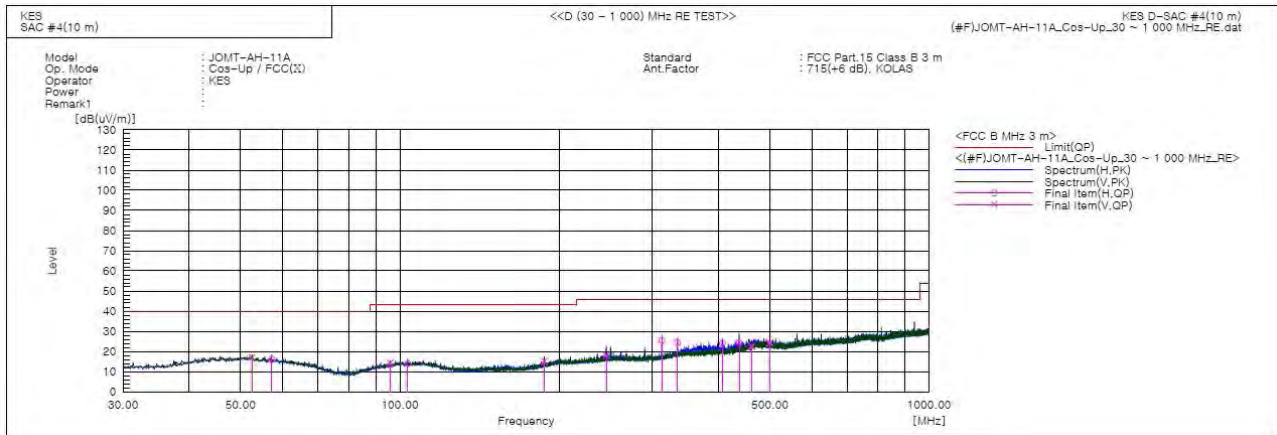


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (24) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

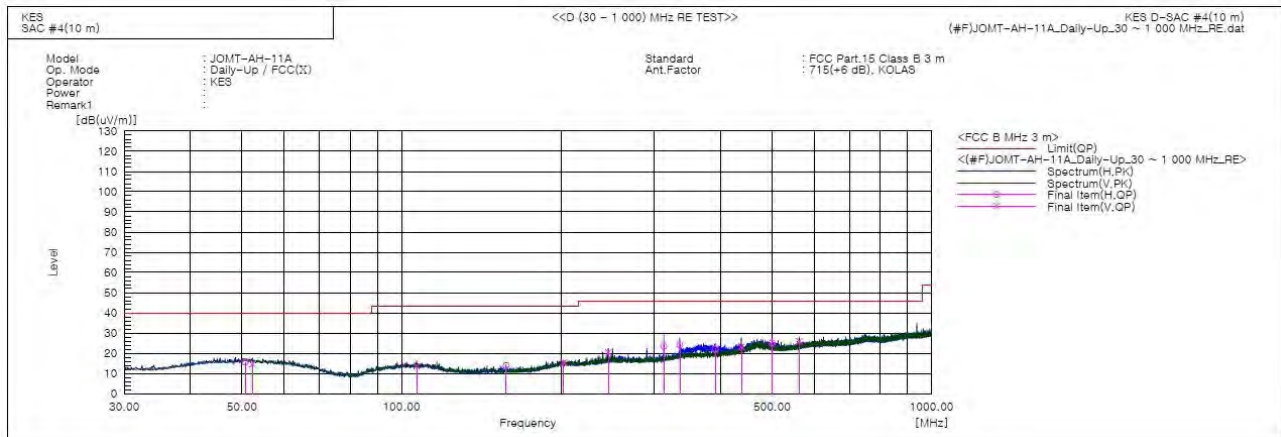


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (25) of (54)

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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

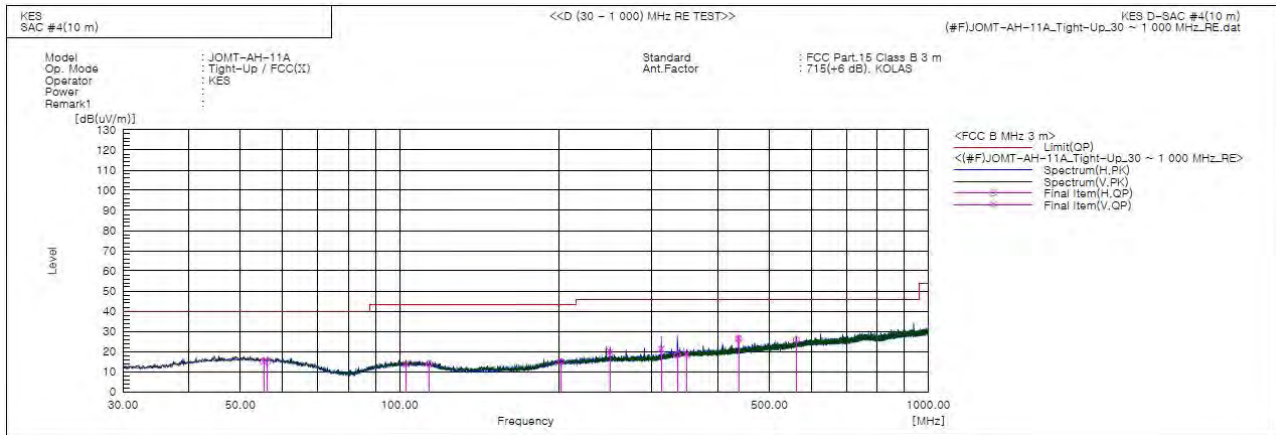


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (26) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

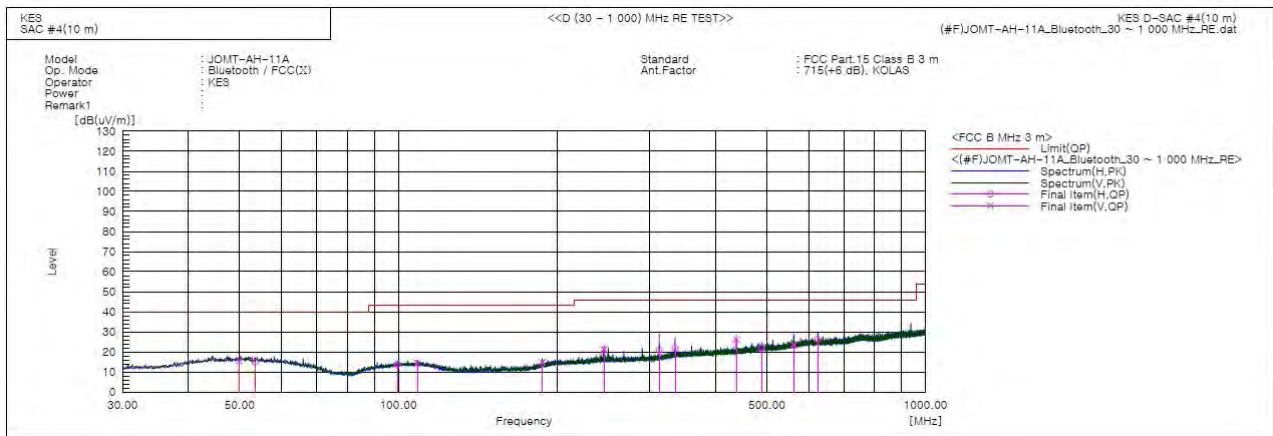


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (27) of (54)

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



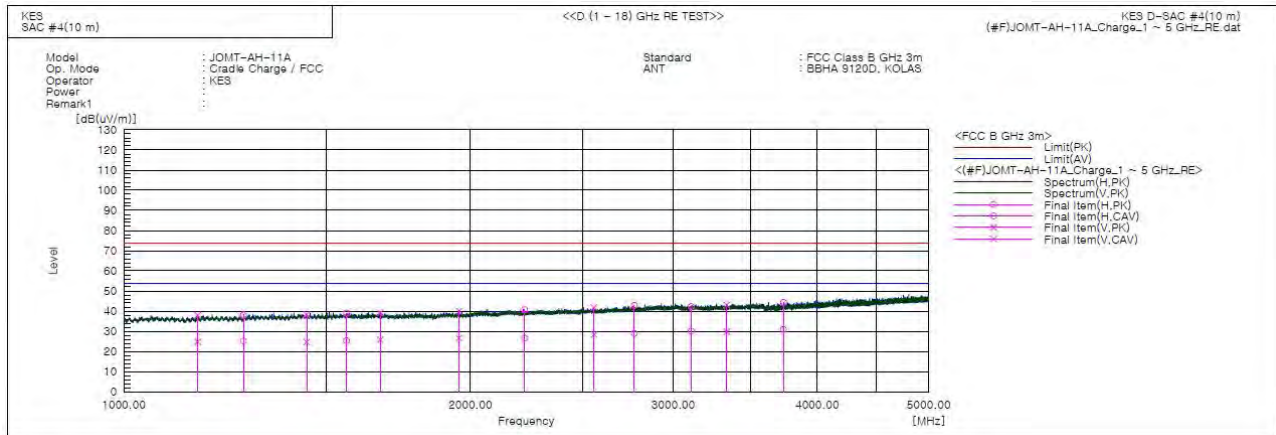
KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (28) of (54)

Radiated Electric Field Emissions(Above 1 GHz)

■ 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	3336.106	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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

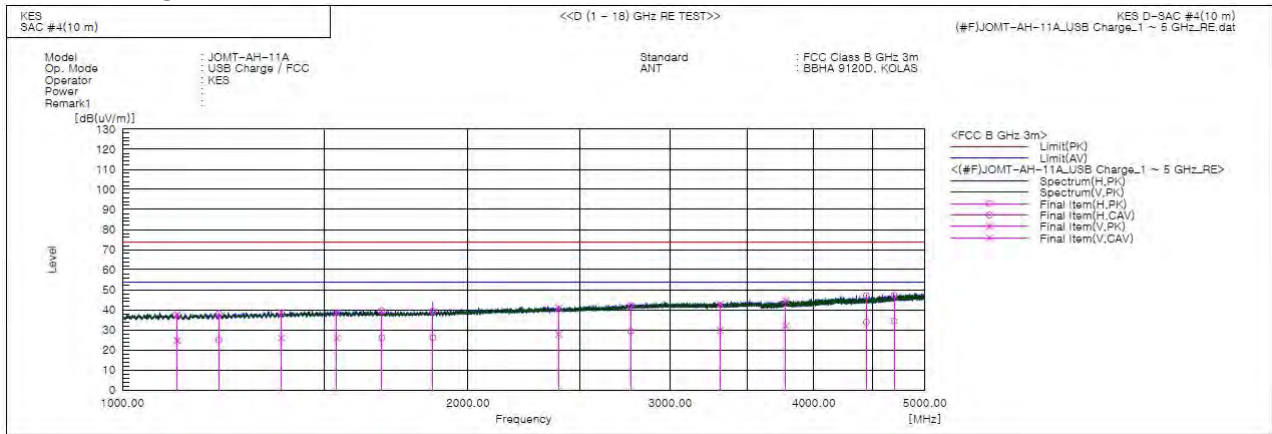


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (29) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

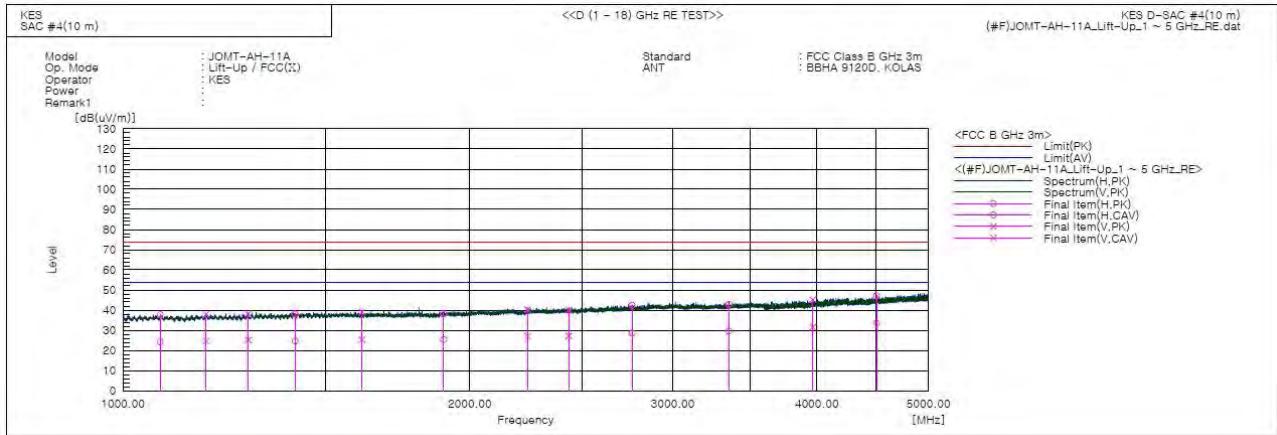


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (30) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

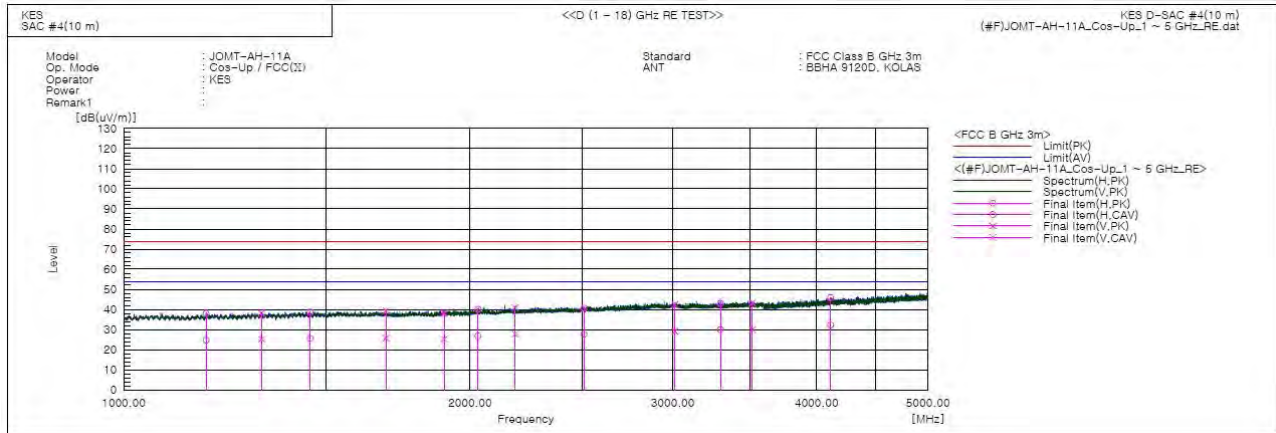


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (31) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

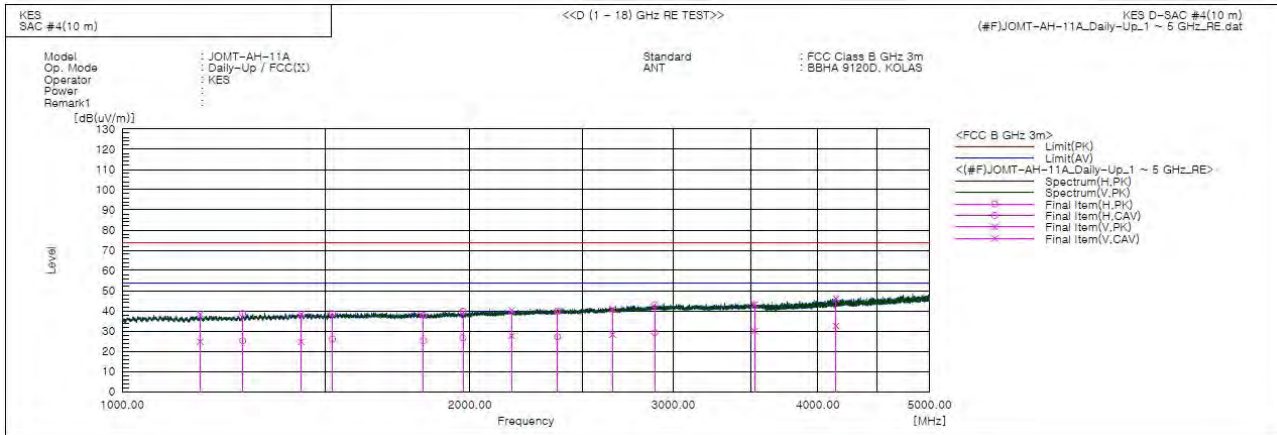


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (32) of (54)

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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

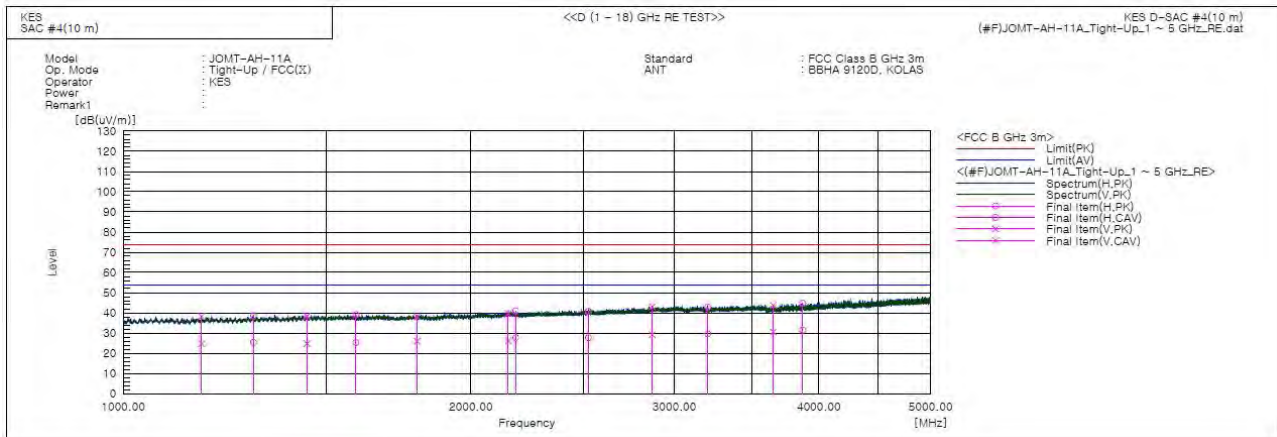


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (33) of (54)

■ 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	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



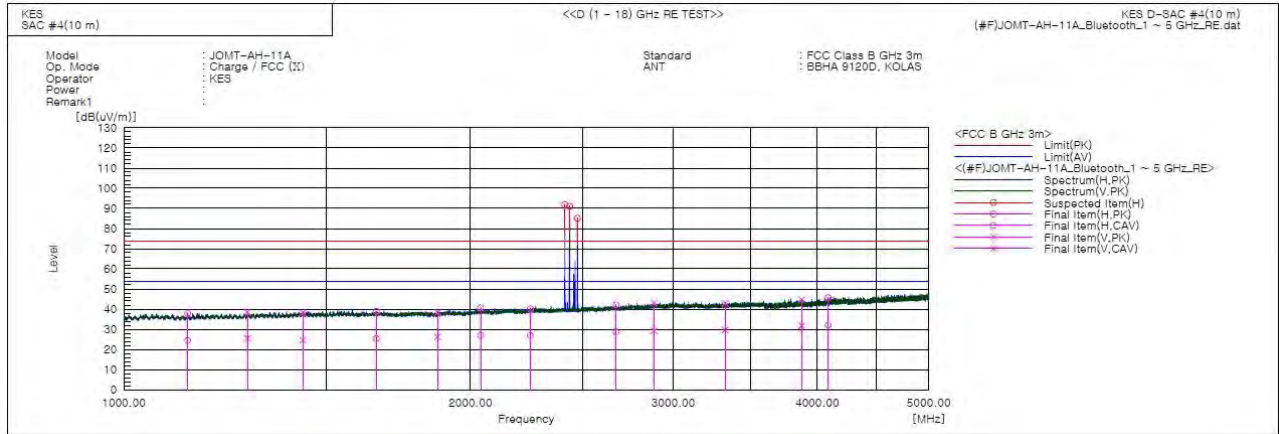
KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0502
Page (34) of (54)

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	

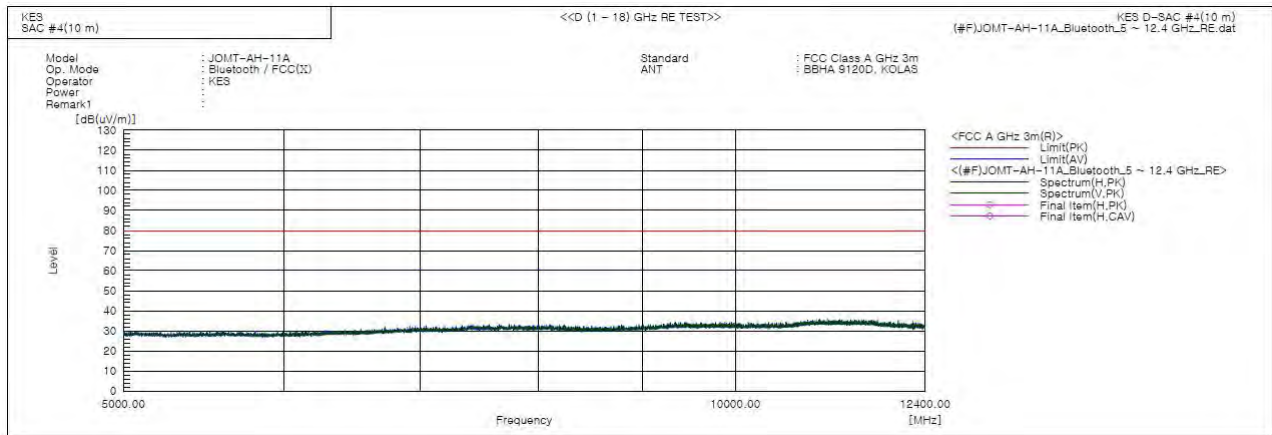
* Exclusion bands

- Fundamental Frequency : 2.4 GHz Band

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



- (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