EMC TEST REPORT

Test Report No.	:	KES-EM-20T0119
Date of Issue	:	Feb. 14, 2020
Product name	:	IQ TRANSMITTER
Model/Type No.	:	J2002
Variant Mode	:	-
Applicant	:	JTECH an HME Company
Applicant Address	:	1400 Northbrook Parkway Suite #320 Suwanee , GA USA 30024
Manufacturer	:	Lee Technology Korea Co.,Ltd.
Manufacturer Address	:	47, Ojeong-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do, Korea
FCC ID	:	WDC-J2002
Date of Receipt	:	Dec. 10, 2019
Test date	:	Feb. 03, 2020
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
Feb. 14, 2020	KES-EM-20T0119	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Item	spec
Operating Frequency	475 ㎒
Power	DC 12V, 5A (Adaptor)
Weight	1481 g
Port	RS-232 x 1
Size	(23 x 14 x 4) ㎝

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.

Voltage ☐ 230 Vac ☒ 120 Vac ☐ 12 Vdc ☐ DC 3.7 V (Battery)

Frequency ☐ 50 Hz ☒ 60 Hz ☐ Hz

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
IQ TRANSMITTER	J2002	-	Lee Technology Korea Co.,Ltd.	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Adaptor	FSP060-DIBAN2	-	FSP GROUP INC.	-
Notebook	NT730U3E	JJRE91CF200065A	Samsung Electronics Co., Ltd.	-
Notebook Adaptor	PA-1600-66	AD-6019P	LITEON	-
Pager	A1432	DQXJWFHDF193	APPLE .Inc	-

1.6 External I/O Cabling

■ Wireless Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
IQ TRANSMITTER (EUT)	DC IN	Adaptor	DC OUT	1.4	U
	Wireless	Pager	Wireless	-	-

■ Cable Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
IQ TRANSMITTER (EUT)	DC IN	Adaptor	DC OUT	1.4	U
	RS-232	Notebook	USB	2.0	U
	Wireless	Pager	Wireless	-	-

1.7 EUT Cable Mode(s)

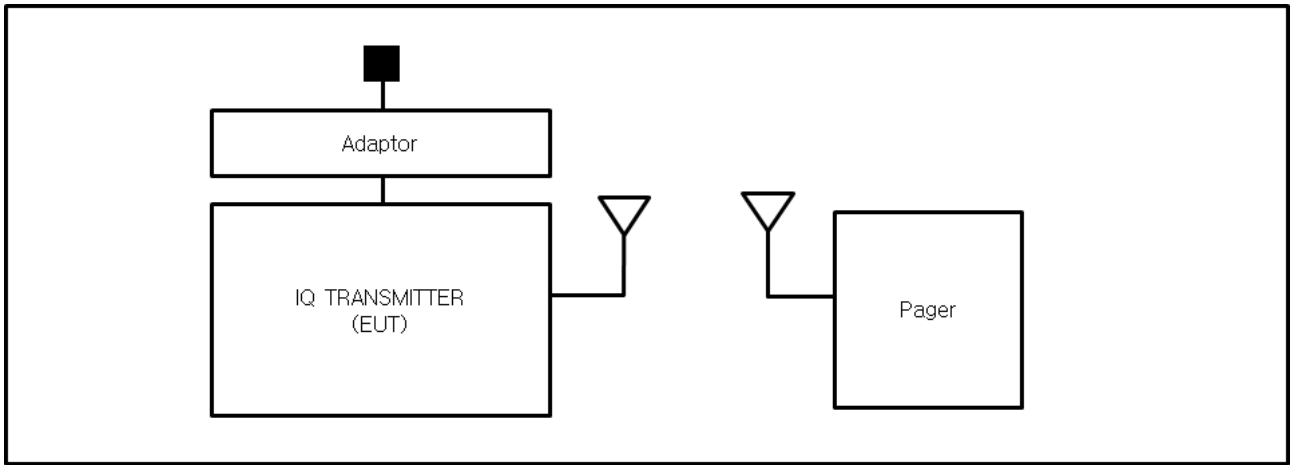
Test mode	operating
Wireless Mode	After connecting the EUT and Pager, I confirmed that it worked.
Cable Mode	After connecting the EUT to the Notebook, I used a program to check its operation.

EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
LPPS Lite 2.0	1, 0, 0, 1	LEETEX

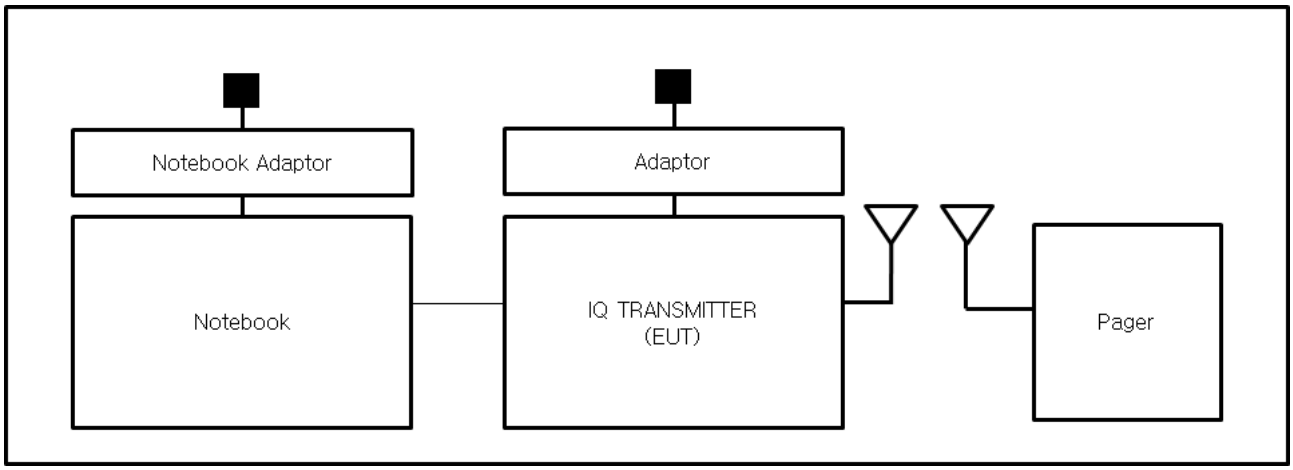
1.8 Configuration

■ AC Main
□ DC Main

■ Wireless Mode



■ Cable 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 16-1-4:2012

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	23298-1
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-Aechoic Chamber , 10 m Open Area and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	CARAT 001633 0003

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 V-3 / 2015.04**	☐ Class A	☐ Class B
☐ **AS/NZS:2013**	☐ Class A	☐ Class B
☒ **47 CFR Part 15, Subpart B**		
☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☒ ANSI C63.4-2014	☐ Class A	☒ Class B
☐ **IC Regulation ICES-003 : 2016**		
☐ CAN/CSA CISPR 22-10	☐ Class A	☐ Class B
☐ ANSI C63.4-2014	☐ Class A	☐ Class B

☐ **RE– Directive 2014/53/EU**

☐ EN 301 489-1 V1.9.2

- ☐ 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
Feb. 03, 2020

Test Location
Electro wave Shieldroom #3

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	01, 20, 2021	1 Year
☒	LISN	ENV216	R & S	101786	01, 20, 2021	1 Year
☒	LISN	ENV216	R & S	101137	01, 20, 2021	1 Year

Test Conditions
Temperature: 18,8 ℃
Relative Humidity: 40,1 % 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
Feb. 03, 2020

Test Location
☐ OPEN AREA TEST SITE #2 ☒ SEMI ANECHOIC CHAMBER #4(10 m)

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due	calibration interval
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	04, 09, 2020	1 Year
☒	AMPLIFIER	SCU 01	R & S	100603	11, 25, 2020	1 Year
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	11, 29, 2020	2 Year
☒	ATTENUATOR	8491A	HP	32173	03, 11, 2020	1 Year

Test Conditions
Temperature: 22,0 ℃
Relative Humidity: 40,9 % 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 EUT tested three orthogonals (X, Y, Z) axes to determine the orientation that maximum or near-maximum emission level.
- It was determined that X orientation(Wireless mode) and Y orientation(Cable mode) was worst-case orientation; therefore, al final radiated testing was performed with the EUT in X orientation(Wireless mode) and Y orientation(Cable mode).

2.3 Radiated Electric Field Emissions(Above 1 ㎓)

Test Date
Feb. 03, 2020

Test Location
SEMI ANECHOIC CHAMBER #4(10 m)

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due	calibration interval
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	04, 09, 2020	1 Year
☒	PREAMPLIFIER	8449B	AGILENT	3008A01742	01, 02, 2021	1 Year
☒	ATTENUATOR	8491A	HP	35496	03, 11, 2020	1 Year
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	12, 13, 2020	1 Year

Test Conditions
Temperature: 22,0 ℃
Relative Humidity: 40,9 % R.H.

Frequency Range of Measurement
1 ㎓ to 5 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
- See Appendix A for test data.
- The EUT tested three orthogonals (X, Y, Z) axes to determine the orientation that maximum or near-maximum emission level.
- It was determined that X orientation(Wireless mode) and Y orientation(Cable mode) was worst-case orientation; therefore, al final radiated testing was performed with the EUT in X orientation(Wireless mode) and Y orientation(Cable mode).

APPENDIX A – TEST DATA

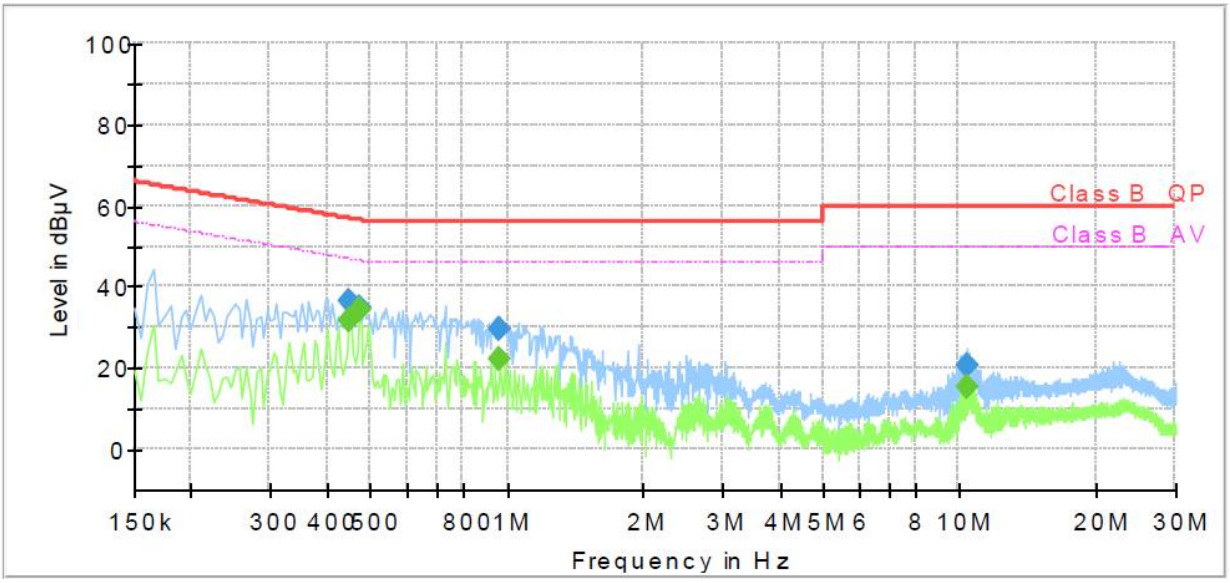
Conducted Emissions at Mains Power Ports

■ Wireless Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	J2002
Mode	Wireless_ H
Operator Name:	KES



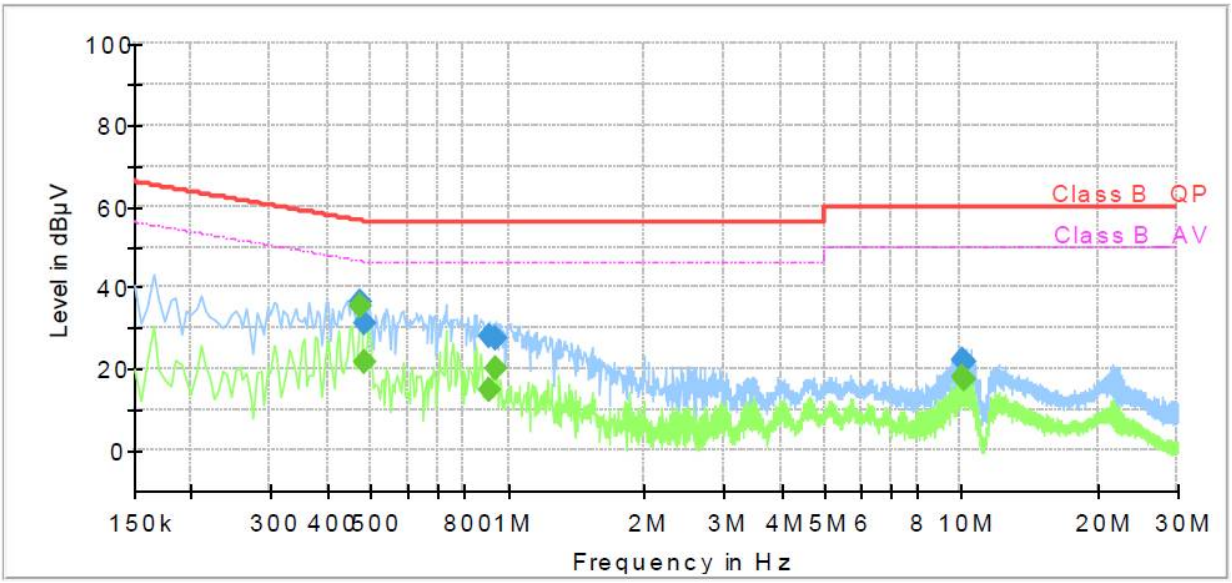
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.445000	---	31.74	46.97	15.23	1000.0	9.000	L1	10.8
0.445000	36.58	---	56.97	20.39	1000.0	9.000	L1	10.8
0.470000	---	34.19	46.51	12.32	1000.0	9.000	L1	10.9
0.470000	35.20	---	56.51	21.31	1000.0	9.000	L1	10.9
0.965000	---	22.44	46.00	23.56	1000.0	9.000	L1	11.4
0.965000	29.60	---	56.00	26.40	1000.0	9.000	L1	11.4
10.430000	---	15.30	50.00	34.70	1000.0	9.000	L1	10.4
10.430000	20.43	---	60.00	39.57	1000.0	9.000	L1	10.4

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	J2002
Mode	Wireless_ N
Operator Name:	KES



Final_Result

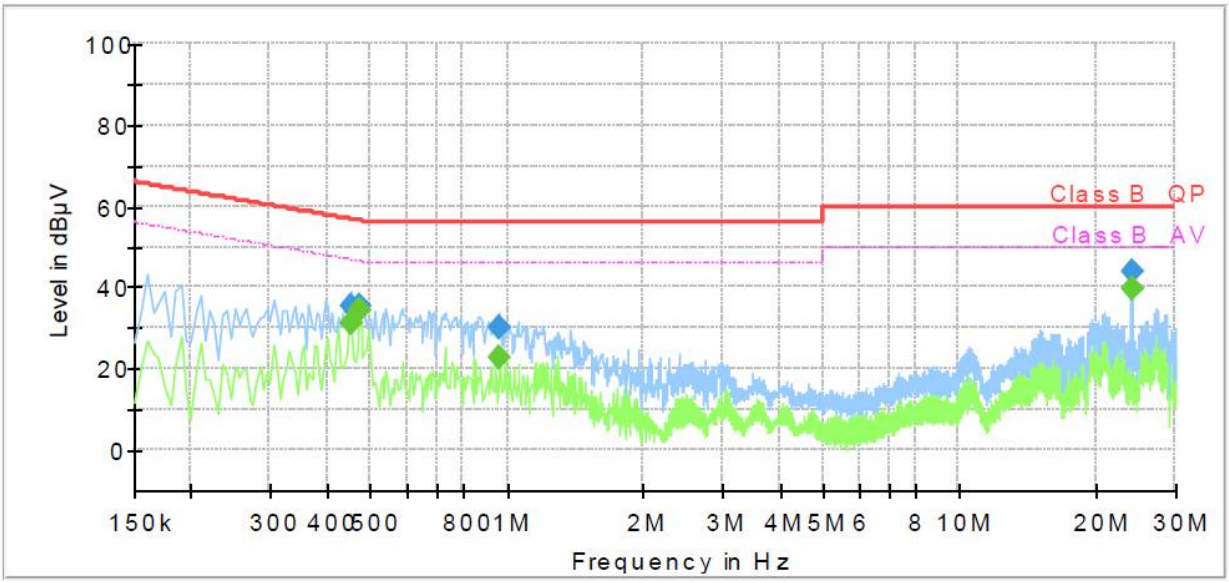
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.470000	---	35.47	46.51	11.04	1000.0	9.000	N	10.9
0.470000	36.55	---	56.51	19.96	1000.0	9.000	N	10.9
0.485000	---	21.98	46.25	24.27	1000.0	9.000	N	10.9
0.485000	31.34	---	56.25	24.91	1000.0	9.000	N	10.9
0.910000	---	14.71	46.00	31.29	1000.0	9.000	N	11.4
0.910000	28.00	---	56.00	28.00	1000.0	9.000	N	11.4
0.945000	---	20.06	46.00	25.94	1000.0	9.000	N	11.4
0.945000	27.71	---	56.00	28.29	1000.0	9.000	N	11.4
10.105000	---	17.83	50.00	32.17	1000.0	9.000	N	10.3
10.105000	22.34	---	60.00	37.66	1000.0	9.000	N	10.3
10.125000	---	17.53	50.00	32.47	1000.0	9.000	N	10.3
10.125000	21.98	---	60.00	38.02	1000.0	9.000	N	10.3

■ Cable Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	J2002
Mode	Cable_ H
Operator Name:	KES



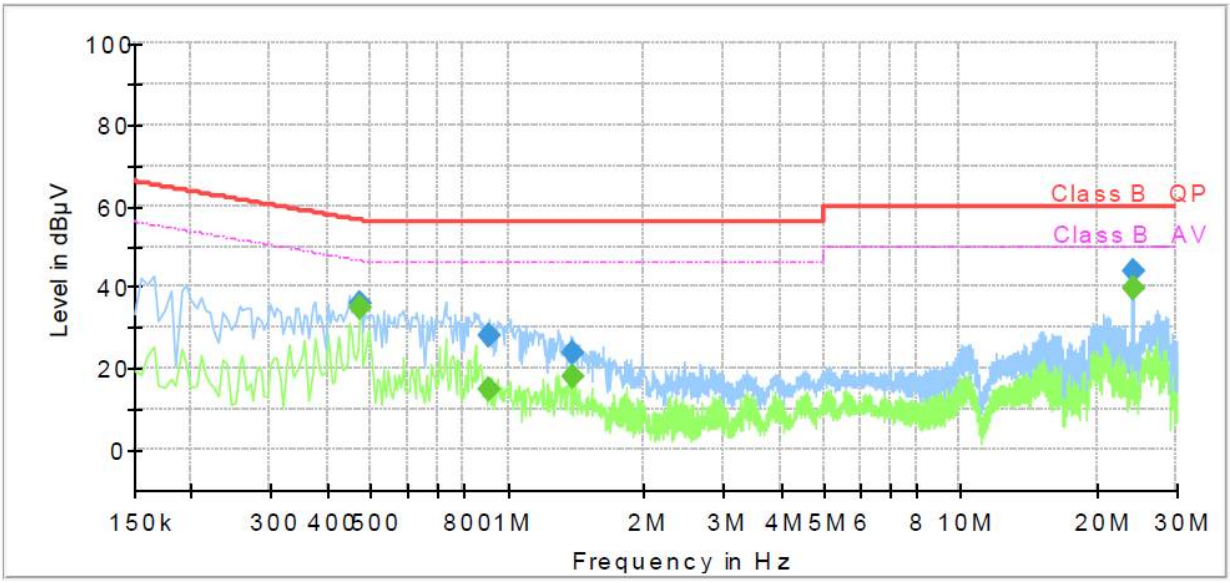
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.450000	---	31.17	46.88	15.71	1000.0	9.000	L1	10.8
0.450000	35.55	---	56.88	21.33	1000.0	9.000	L1	10.8
0.470000	---	34.25	46.51	12.26	1000.0	9.000	L1	10.9
0.470000	35.30	---	56.51	21.21	1000.0	9.000	L1	10.9
0.965000	---	22.65	46.00	23.35	1000.0	9.000	L1	11.4
0.965000	29.97	---	56.00	26.03	1000.0	9.000	L1	11.4
24.000000	---	39.88	50.00	10.12	1000.0	9.000	L1	11.0
24.000000	43.88	---	60.00	16.12	1000.0	9.000	L1	11.0

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	J2002
Mode	Cable_ N
Operator Name:	KES



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.470000	---	34.79	46.51	11.72	1000.0	9.000	N	10.9
0.470000	36.10	---	56.51	20.41	1000.0	9.000	N	10.9
0.910000	---	15.07	46.00	30.93	1000.0	9.000	N	11.4
0.910000	28.27	---	56.00	27.73	1000.0	9.000	N	11.4
1.390000	---	18.09	46.00	27.91	1000.0	9.000	N	10.5
1.390000	24.09	---	56.00	31.91	1000.0	9.000	N	10.5
24.000000	---	39.73	50.00	10.27	1000.0	9.000	N	11.0
24.000000	43.85	---	60.00	16.15	1000.0	9.000	N	11.0

♦ 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))

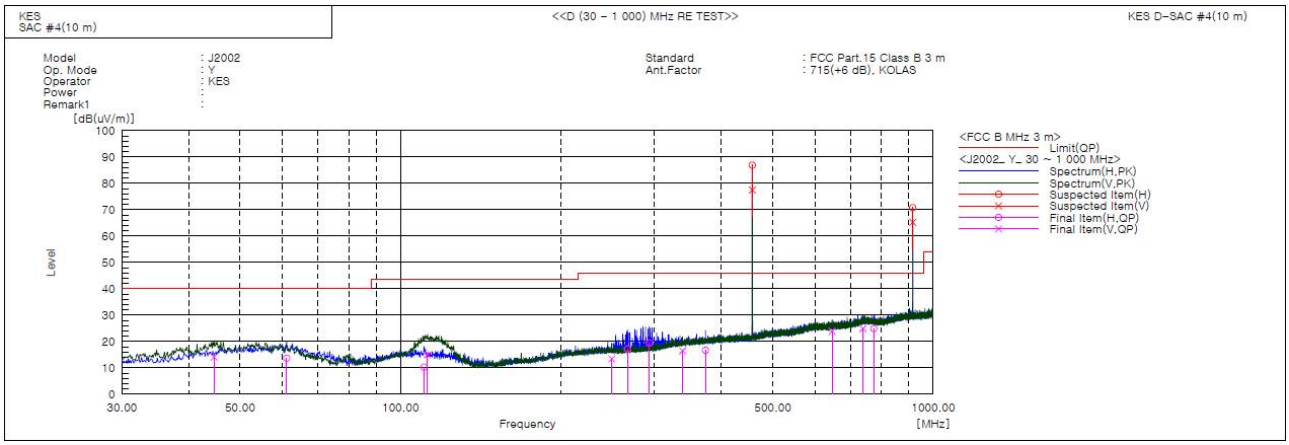
Uncertainty of measurement

HOT Line : Uncertainty of measurement 2.38 dB
(Confidence level: Approx. 95 %, *k*=2)

Neutral Line : Uncertainty of measurement 2.38 dB
(Confidence level: Approx. 95 %, *k*=2)

Radiated Electric Field Emissions(Below 1 ㎓)

■ Wireless Mode

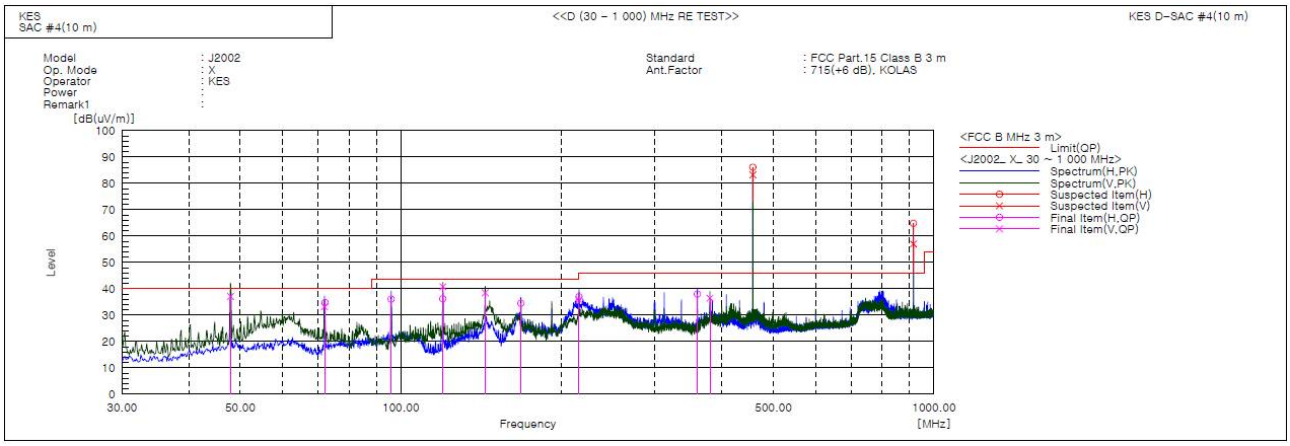


Final Result

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	44.671	V	36.4	-22.3	14.1	40.0	25.9	110.0	40.0	
2	61.161	H	36.8	-23.1	13.7	40.0	26.3	213.0	140.0	
3	110.753	H	33.6	-23.3	10.3	43.5	33.2	354.0	329.0	
4	112.450	V	38.5	-23.5	15.0	43.5	28.5	116.0	290.0	
5	249.220	V	34.3	-20.9	13.4	46.0	32.6	128.0	350.0	
6	266.923	H	37.9	-20.7	17.2	46.0	28.8	229.0	151.0	
7	293.113	H	39.5	-20.0	19.5	46.0	26.5	187.0	151.0	
8	338.581	V	34.2	-17.7	16.5	46.0	29.5	105.0	78.0	
9	373.744	H	33.6	-16.9	16.7	46.0	29.3	256.0	275.0	
10	645.950	V	34.7	-10.8	23.9	46.0	22.1	149.0	309.0	
11	737.858	V	33.8	-8.9	24.9	46.0	21.1	150.0	289.0	
12	773.505	H	34.1	-9.2	24.9	46.0	21.1	297.0	119.0	
13	457.528	H	-------	-15.5	-------	46.0	-------	200.0	198.0	
14	457.528	V	-------	-15.5	-------	46.0	-------	100.0	67.0	
15	915.246	H	-------	-7.2	-------	46.0	-------	100.0	187.0	
16	915.246	V	-------	-7.2	-------	46.0	-------	100.0	183.0	

* Wireless Mode Exclusion Bands
- Fundamental Frequency: 457 ㎒
- Harmonic Frequency : 915 ㎒

■ Cable 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	47.945	V	59.0	-21.9	37.1	40.0	2.9	110.0	308.0	
2	71.953	V	59.5	-26.3	33.2	40.0	6.8	152.0	262.0	
3	72.135	H	61.1	-26.3	34.8	40.0	5.2	354.0	190.0	
4	95.960	H	59.8	-23.7	36.1	43.5	7.4	289.0	185.0	
5	119.897	H	60.9	-24.7	36.2	43.5	7.3	264.0	165.0	
6	119.968	V	65.5	-24.7	40.8	43.5	2.7	135.0	113.0	
7	143.975	V	65.3	-26.8	38.5	43.5	5.0	118.0	225.0	
8	167.983	H	59.8	-25.3	34.5	43.5	9.0	257.0	177.0	
9	215.867	H	58.6	-21.6	37.0	43.5	6.5	226.0	2.0	
10	215.998	V	57.5	-21.6	35.9	43.5	7.6	105.0	244.0	
11	360.043	H	55.2	-17.2	38.0	46.0	8.0	329.0	320.0	
12	380.049	V	53.1	-16.7	36.4	46.0	9.6	150.0	191.0	
13	457.528	H	----------	-15.5	----------	46.0	----------	100.0	2.0	
14	457.528	V	----------	-15.5	----------	46.0	----------	150.0	310.0	
15	915.246	H	----------	-7.2	----------	46.0	----------	200.0	217.0	
16	915.246	V	----------	-7.2	----------	46.0	----------	150.0	282.0	

* Wireless Mode Exclusion Bands
- Fundamental Frequency: 457 ㎒
- Harmonic Frequency : 915 ㎒

♦ Calculation – SAC #4(10 m)
Result(QP) [dB(㎶/m)] = (Reading(QP)[dB(㎶)] + c.f[dB(1/m)]
Margin(QP)[dB] = Limit[dB(㎶/m)] - Result(QP) [dB(㎶/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

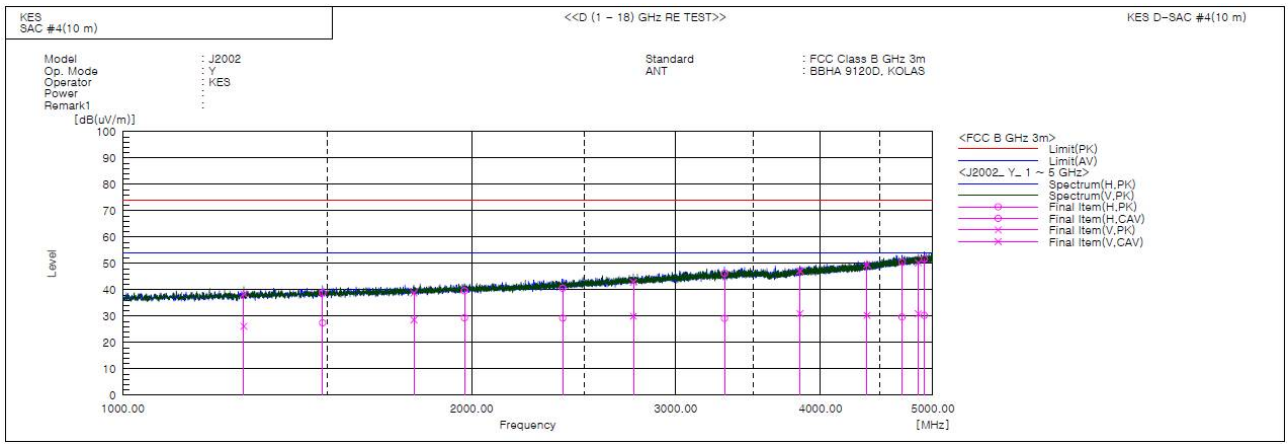
Uncertainty of measurement

Horizontal : Uncertainty of measurement 4.16 dB
(Confidence level: Approx. 95 %, *k*=2)

Vertical : Uncertainty of measurement 4.24 dB
(Confidence level: Approx. 95 %, *k*=2)

Radiated Electric Field Emissions(Above 1 ㎓)

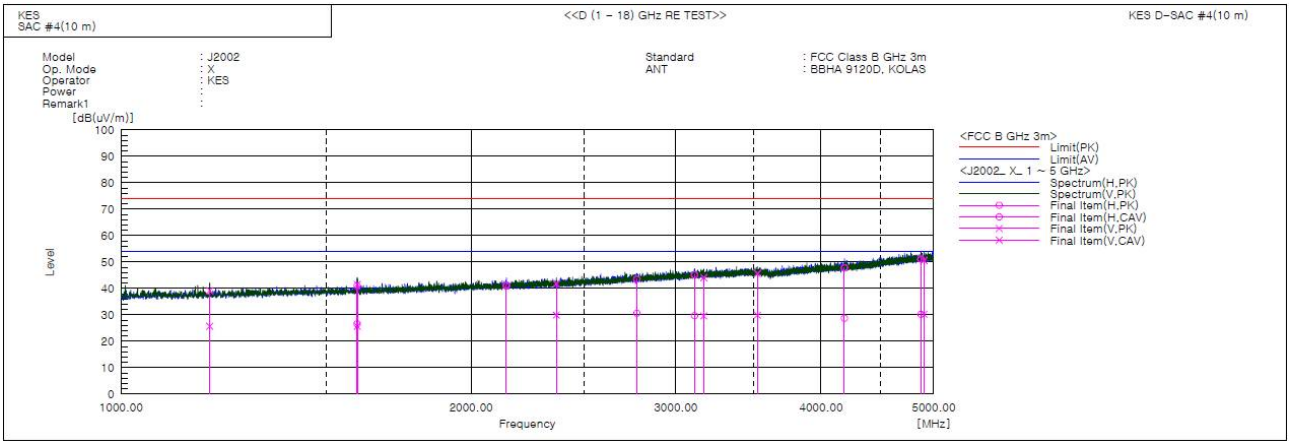
■ Wireless Mode



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	1272.000	V	42.1	29.8	-3.6	38.5	26.2	74.0	54.0	35.5	27.8	118.0	78.0	
2	1487.500	H	41.3	29.9	-2.4	38.9	27.5	74.0	54.0	35.1	26.5	386.0	218.0	
3	1783.500	V	39.8	29.7	-1.1	38.7	28.6	74.0	54.0	35.3	25.4	124.0	157.0	
4	1972.000	H	39.8	29.6	-0.2	39.6	29.4	74.0	54.0	34.4	24.6	267.0	115.0	
5	2397.000	H	38.9	27.6	1.7	40.6	29.3	74.0	54.0	33.4	24.7	362.0	310.0	
6	2758.500	V	39.3	26.4	3.6	42.9	30.0	74.0	54.0	31.1	24.0	158.0	349.0	
7	3305.500	H	40.5	23.4	5.8	46.3	29.2	74.0	54.0	27.7	24.8	259.0	28.0	
8	3841.000	V	39.6	23.4	7.6	47.2	31.0	74.0	54.0	26.8	23.0	152.0	47.0	
9	4387.500	V	39.8	20.5	9.8	49.6	30.3	74.0	54.0	24.4	23.7	148.0	114.0	
10	4704.000	H	38.6	17.8	11.9	50.5	29.7	74.0	54.0	23.5	24.3	394.0	345.0	
11	4859.000	V	37.6	18.3	12.6	50.2	30.9	74.0	54.0	23.8	23.1	224.0	169.0	
12	4916.500	H	38.9	17.5	12.8	51.7	30.3	74.0	54.0	22.3	23.7	293.0	254.0	

■ Cable 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	1192.000	V	43.2	29.7	-4.0	39.2	25.7	74.0	54.0	34.8	28.3	109.0	91.0	
2	1596.000	H	42.9	28.5	-1.9	41.0	26.6	74.0	54.0	33.0	27.4	267.0	146.0	
3	1596.500	V	43.5	27.6	-1.9	41.6	25.7	74.0	54.0	32.4	28.3	103.0	329.0	
4	2145.000	H	40.8	40.5	0.5	41.3	41.0	74.0	54.0	32.7	13.0	249.0	337.0	
5	2368.500	V	40.2	28.3	1.6	41.8	29.9	74.0	54.0	32.2	24.1	118.0	126.0	
6	2778.000	H	39.8	26.9	3.7	43.5	30.6	74.0	54.0	30.5	23.4	396.0	333.0	
7	3114.000	H	39.9	24.5	5.2	45.1	29.7	74.0	54.0	28.9	24.3	259.0	345.0	
8	3171.500	V	38.7	24.2	5.4	44.1	29.6	74.0	54.0	29.9	24.4	121.0	87.0	
9	3527.500	V	39.6	23.8	6.1	45.7	29.9	74.0	54.0	28.3	24.1	134.0	107.0	
10	4190.000	H	38.7	19.6	9.1	47.8	28.7	74.0	54.0	26.2	25.3	362.0	206.0	
11	4875.500	H	38.5	17.6	12.6	51.1	30.2	74.0	54.0	22.9	23.8	376.0	284.0	
12	4905.000	V	37.8	17.5	12.8	50.6	30.3	74.0	54.0	23.4	23.7	113.0	162.0	

♦ 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: Marjin value

Uncertainty of measurement

Uncertainty of measurement 5.76 dB
(Confidence level: Approx. 95 %, *k*=2)