

TEST REPORT

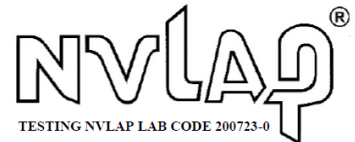
This laboratory is accredited by National Radio Research Agency Laboratory and National Voluntary Laboratory Accreditation Program.

The tests reported herein have been performed in accordance with its terms of accreditation.

Test Report No. : LR500112301B
Issue Date : January 09, 2023
Applied Standard : FCC Part 15, Subpart B & ICES-003 (Issue.7)
Trade Name : YEONHWA M TECH CO.,LTD.
Equipment Name : Wireless Speaker
Model Name : MDS-2400
Additional Model name : MDS-1400, MDS-3400
FCC ID : VSOMDS-2400
Serial Number : Identification

This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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



Revision history

Revision	Date of issue	Test report No.	Description
0	01.09.2023	LR500112301B	Initial

>>TABLE OF CONTENTS<<

General information's	6
1- Brief Information.....	7
2- Test Site Description	10
3- Test Procedure.....	12
4- List of Equipment Used For the Tests	15
5- EMISSION	16
5-1 Conducted Emissions	16
5-2 Radiated Emissions (FCC)	20
Conclusions.....	30

LTA Certification**Applicant**

Company name : YEONHWA M TECH CO.,LTD.
Address : 36, Jeonpa-ro 44beon-gil Manan-gu, Anyang-si, Gyeonggi-do, Korea
Telephone / Facsimile : +82-031-444-7270 / +82-031-444-7271

Factory

Company name : YEONHWA M TECH CO.,LTD.
Address : 36, Jeonpa-ro 44beon-gil Manan-gu, Anyang-si, Gyeonggi-do, Korea

Equipment Under Test (EUT)

Equipment Name : Wireless Speaker
Model name : MDS-2400
Additional Model name : MDS-1400, MDS-3400
Serial number : Identification
Intended environment : Residential area
Date of receipt : January 09, 2023
EUT condition : Pre-production, not damaged
Interface ports : MDS-2400 : AC IN, Antenna IN
Interface ports : MDS-3400 : DC IN, AC IN, Antenna IN
Power rating : AC 120 V, 60 Hz
Test Voltage : AC 120 V, 60 Hz

Model Description

- NONE

Model Specification

- NONE

*** To be continued next page ***

LTA Certification –cont.-**Test Performed**

Test started & completed : January 03 - 04, 2023
Location : LTA Co., Ltd.

Test Specification

Purpose of the test : Compliance test to the following standard
Applied standard : FCC Part 15, Subpart B & ICES-003 (Issue.7)
Classification : Class A
Deviations from Standard Test Method : N/A

Test Results

Measurement	Results*	Test method
Conducted Emissions	Complies	ANSI C 63.4 ICES-003 (Issue.7)
Radiated Emissions	Complies	ANSI C 63.4 ICES-003 (Issue.7)

* : The compliance statement is based on nominal value only.

Modification performed by the lab.;

- N/A

Laboratory's Certificate

Report number : LR500112301B
Issue date : January 09, 2023

This test report is issued under the authority of:

The test was supervised by:



Young Kyu Shin, Technical Manager



Jong chae Kim, Test Engineer

The results in this report apply only to the sample(s) tested.

It is not allowed to copy this report even partly without the allowance of the test laboratory.

General information's

Purpose

This document is based on the Electromagnetic Interference (EMI) tests performed on the “**MDS-2400**”. The measurements were performed according to the measurement procedure described in ICES-003 and ANSI C 63.4. The tests were carried out in order to confirm whether the electromagnetic emissions from the EUT (Equipment Under Test), are within the Class A limits defined in ICES-003 and FCC Part 15.

Test Performed

Company name : **LTA Co., Ltd.**
Address : 4, Songju-ro 236beon-gil, Yangji-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17159, Korea
Telephone : +82-31-323-6008
Facsimile : +82-31-323-6010

Measurement uncertainty

Conducted Emissions (0.15 to 30 MHz) : ± 2.80 [dB] (k=2)
Radiated Emissions (30 to 1,000 MHz) : H : ± 4.42 [dB] (k=2) V : ± 4.70 [dB] (k=2)
(1 GHz to 6 GHz) : H : ± 5.88 [dB] (k=2) V : ± 5.91 [dB] (k=2)
(6 GHz to 18 GHz) : H : ± 6.13 [dB] (k=2) V : ± 6.16 [dB] (k=2)

The coverage factor k=2 yields approx. a 95% level of confidence for near-normal distribution typical of most measurement results.

Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

Agency	Country	Accreditation No.	Validity	Reference
NVLAP	U.S.A	200723-0	2023-09-30	ECT accredited Lab.
	KOREA		-	
RRA	U.S.A	KR0049	2023-04-08	RRA accredited Lab.
	CANADA		2024-08-15	
		C-14948	2023-09-10	
VCCI	JAPAN	T-12416	2023-09-10	VCCI registration
		R-14483	2023-10-15	
		G-10847	2024-12-13	
KOLAS	KOREA	KT551	2025-10-12	KOLAS accredited Lab.

1- Brief Information

1-1 Test Summary

Parameter	Applied Standard	Status (note 1)
I. Emission		
Conducted Emissions	FCC Part 15.107 / ICES-003 Clause 3.2.1	C
Radiated Emissions	FCC Part 15.109 / ICES-003 Clause 3.2.2	C
Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable * The data in this test report are traceable to the national or international standards.		

Frequency range to be scanned:

0.15 MHz - 30 MHz as conducted measurement

30 MHz to 5th harmonic of the highest frequency or 40 GHz, whichever is lower as radiated measurement.

Bandwidth:

Measured by the CISPR quasi-peak function Bandwidth is 9 kHz in the frequency 0.15 MHz to 30 MHz and 120 kHz in the frequency 30 MHz to 1,000 MHz.

Measured by the Peak function Bandwidth is 1 MHz in the frequency 1 GHz to 40 GHz.

A sample calculation:

COR. F (correction factor)= Antenna factor + Cable loss- Amp.gain- Distance correction

Emission Level= meter reading + COR.F

1-2 Test mode of the EUT

The tests have been conducted with the following operational mode(s) of the EUT.

Operating mode

1-3 Modification

- NONE

1-4 List of EUT and ACCESSORY

Equipment Name	Model Name	Serial No.	Manufacturer	Remarks
MDS-2400				
Wireless Speaker	MDS-2400	N/A	YEONHWA M TECH CO.,LTD. / Korea	EUT
Radios	N/A	N/A	N/A	-
TEST Jig	N/A	N/A	N/A	-
Smart Phone	SM-G906L	N/A	Samsung	-
Equipment Name	Model Name	Serial No.	Manufacturer	Remarks
MDS-3400				
Wireless Speaker	MDS-3400	N/A	YEONHWA M TECH CO.,LTD. / Korea	EUT
AC/DC Adapter	RS-AB03J00K	N/A	Dongguan Jinhusheng Power Technology Co.,Ltd. / China	EUT
Radios	N/A	N/A	N/A	-
TEST Jig	N/A	N/A	N/A	-
Smart Phone	SM-G906L	N/A	Samsung	-

1-5 Cable List

Cable List						
From		To		Length (m)	Shielding	
Type	I/O Port	Type	I/O Port		Cable	backshell
MDS-2400						
EUT	AC IN	AC POWER SOURCE	3 PIN AC LINE	1.2	N	P
	Antenna IN	Antenna	Antenna OUT	-	-	-
TEST Jig	AUX IN	Smart Phone	AUX OUT	1.0	N	P
	AUX(3.5) OUT	Radios	AUX(3.5) IN	1.0	N	P
	AUX(2.5) OUT		AUX(2.5) IN	1.0	N	P
MDS-3400						
EUT	DC IN	AC/DC Adapter (EUT)	DC OUT	1.2	N	P
	Antenna IN	Antenna	Antenna OUT	-	-	-
AC/DC Adapter (EUT)	AC IN	AC POWER SOURCE	3 PIN AC LINE	1.2	N	P
TEST Jig	AUX IN	Smart Phone	AUX OUT	1.0	N	P
	AUX(3.5) OUT	Radios	AUX(3.5) IN	1.0	N	P
	AUX(2.5) OUT		AUX(2.5) IN	1.0	N	P

2- Test Site Description

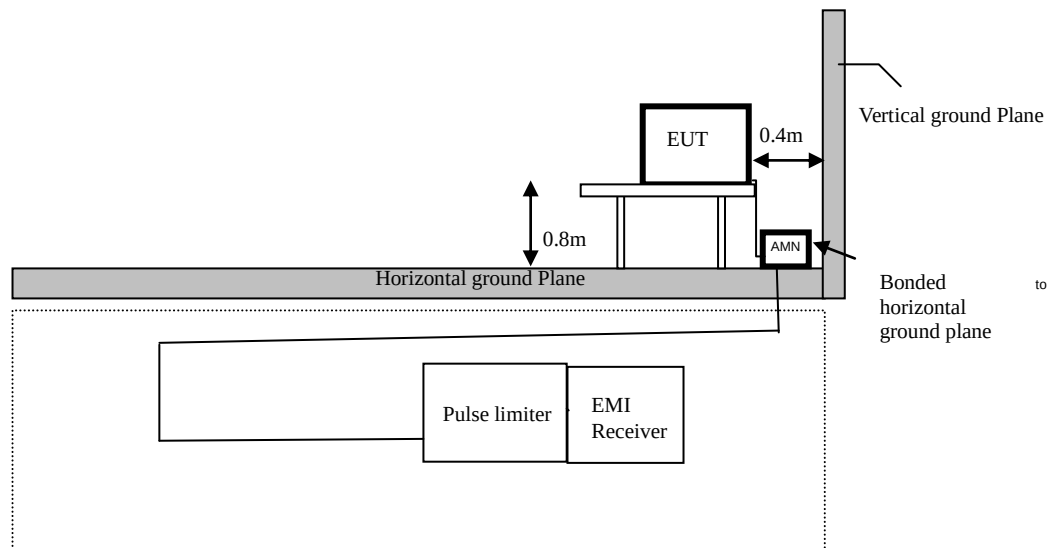
1-Facility

All the testing facilities are periodically serviced as a daily check for equipment and cables systems, an every 1 year facility check for the facilities and annual calibration for testing equipment according to ISO/IEC 17025. All the testing facilities are used as the same specifications shown below. There are descriptions both for radiated disturbance measurement and conducted disturbance measurement conformed by ANSI C 63.4.

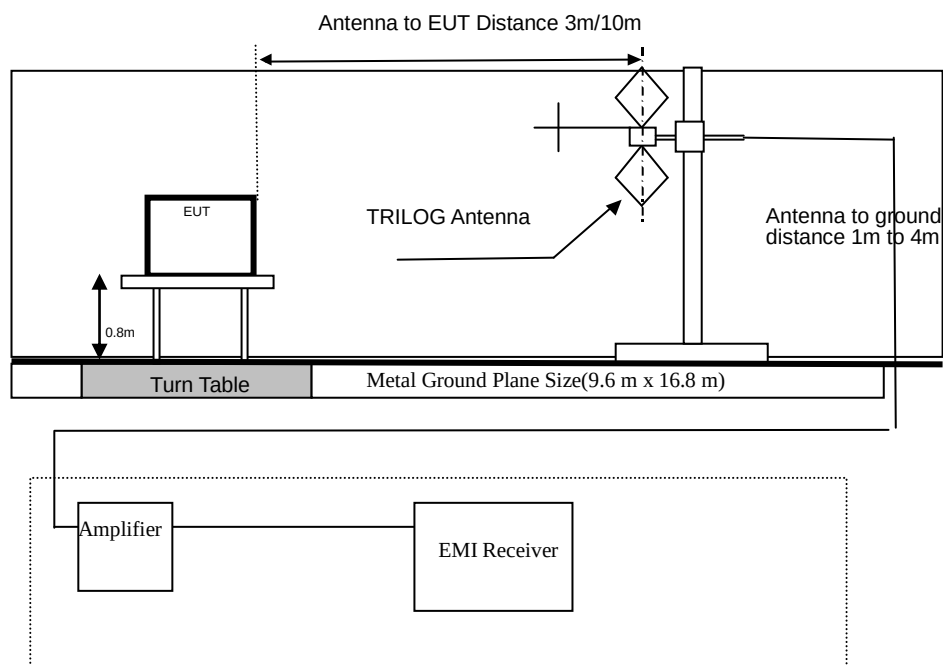
The NSA measurement of the 10 m chamber was performed on January 15, 2022 according to ANSI C 63.4.

The SVSWR measurement of the 10 m chamber was performed on October 16, 2022 according to ANSI C 63.4.

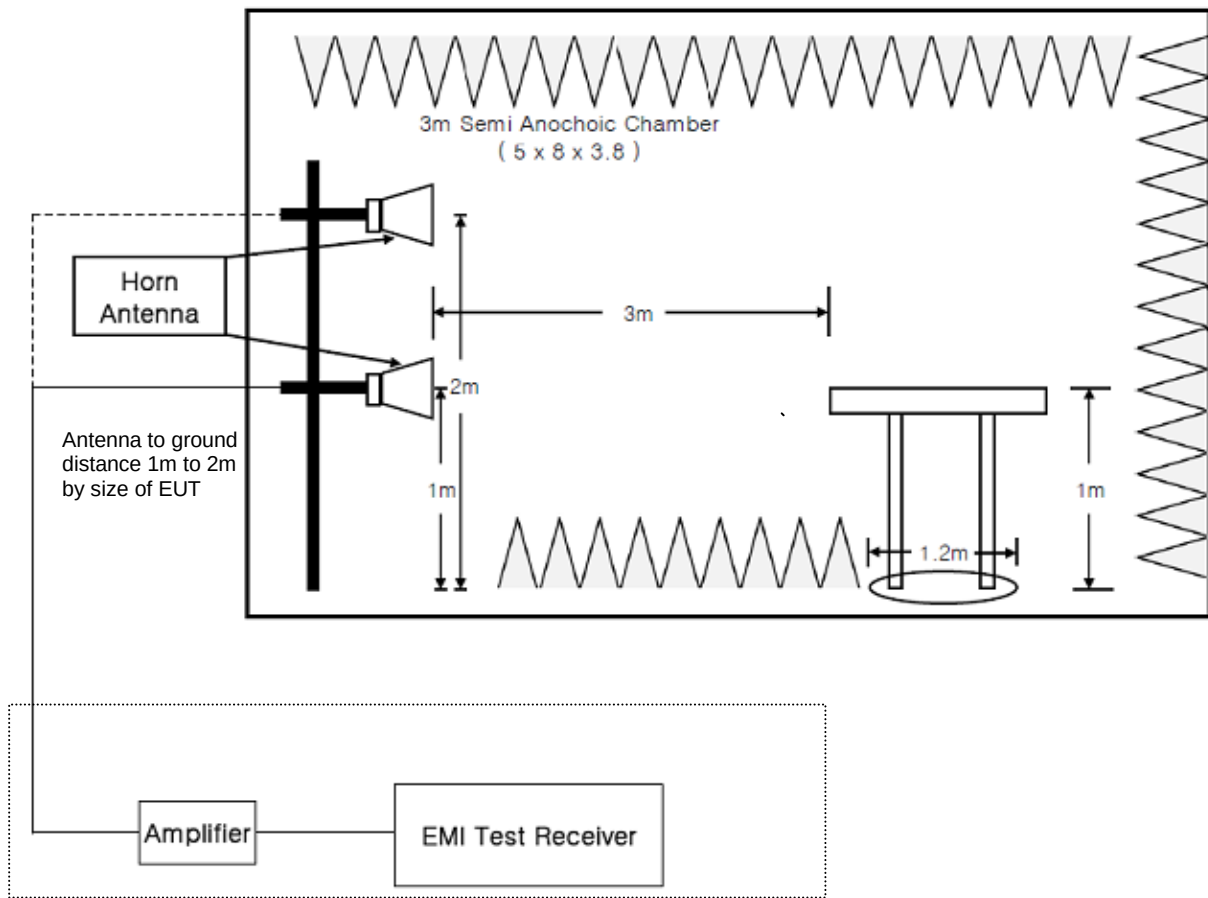
2-1 Conducted Emissions



2-2 Radiated Emissions – Below 1 GHz



2-3 Radiated Emissions – Above 1 GHz



3- Test Procedure

3-1 Conducted Emissions

- The measurement is carried out on an open site with horizontal and metallic ground plane.
- An AMN(Artificial Mains Network) with a nominal impedance ($50\ \Omega$ / $50\ \mu\text{H}$) as defined in ANSI C 63.4, shall be utilized.
- The AMN is grounded on a horizontal metal ground plane.
- Measurement is carried out using an EMI receiver with quasi-peak detectors and average detector.
(Refer to the List of test equipment used for the test.)
- The shortest distance between the EUT and the AMN is 0.8 m.
- The EUT is placed on the non-conducting table with 0.8 m height.
- Refer to "Brief Information"(page 7-9) about details of the EUT and configuration of the cables.
- Measurement is carried out as manual operation.
 - searching the maximum frequency point of the disturbance wave in each frequency range.
 - reading the disturbance level of quasi-peak, average and Line (L) and Neutral (N) in 9 kHz bandwidth by the EMI receiver.
 - calculating the measurement result with the following formula or equation.
(Result = Reading + Cor.F.(LISN Factor + Cable Loss + Pulse Limiter)
(ex) = $13.23\ \text{dB}\mu\text{V} + (9.63\ \text{dB} + 0.01\ \text{dB} + 9.86\ \text{dB})$
 = $32.73\ \text{dB}\mu\text{V}$

3-2 Radiated Emissions – Below 1 GHz

- Test site is met the requirements of ANSI C 63.4 and the distance between the EUT and the antenna is adjusted 3 m or 10 m.
 - The turntable can be rotated 360 degrees.
 - The antenna can be adjusted between 1 m and 4 m in height above the ground.
 - The EUT is placed on the non-conducting table with 0.8 m height on the turntable.
 - Measurements are carried out using an EMI receiver with quasi-peak detectors (120 kHz bandwidth).
 - Refer to the list of test equipment used for the test.
 - The TRILOG antenna are used as wideband antenna.
 - The TRILOG antenna is used in the frequency range of 30 MHz to 1 000 MHz.
 - A variable attenuator is used for verifying amplifier's linearity.
 - Rotating the turntable and adjusting the height of the antenna are carried out by control buttons on the console.
 - Refer to "Brief Information"(page 7-9) about details of the EUT and configuration of the cables.
 - Measurement is carried out by a LTA operator as manual operation.
- searching the worst direction with the maximum level of the disturbance wave in rotating the turntable 360 degrees at each searched frequency point.
- setting the height of the antenna with the maximum level of the disturbance wave from 1 m to 4 m.
- reading the disturbance level by the EMI receiver with quasi-peak detectors (120 kHz bandwidth) according to ANSI C 63.4.
- measuring to vertical and horizontal polarization.
- calculating the measurement result with the following formula or equation:
(Result = Reading + Cor.F (antenna factor + cable loss – PreAmp Gain)
- (ex) = 50.6 dB μ V/m + (11.08 dB(1/m) + 1.31 dB - 27.32 dB)
 = 35.67 dB μ V/m

3-3 Radiated Emissions – Above 1 GHz

- Test site is met the requirements of ANSI C 63.4 and the distance between the EUT and the antenna is adjusted 3 m.
- The turntable can be rotated 360 degrees.
- The antenna can be adjusted between 1 m and 4 m in height above the ground.
- The EUT is placed on the non-conducting table with 1 m height on the turntable.
- Measurements are carried out using an EMI receiver with peak and average detectors(1 MHz bandwidth).
- Refer to the list of test equipment used for the test.
- The HORN antenna are used as wideband antenna.
- The HORN antenna is used in the frequency range of 1 GHz to 18 GHz.
- A variable attenuator is used for verifying amplifier's linearity.
- Rotating the turntable and adjusting the height of the antenna are carried out by control buttons on the console.
- Refer to "Brief Information"(page 7-9) about details of the EUT and configuration of the cables.
- Measurement is carried out by a LTA operator as manual operation.

–searching the worst direction with the maximum level of the disturbance wave in rotating the turntable 360 degrees at each searched frequency point.

–setting the height of the antenna with the maximum level of the disturbance wave from 1 m to 4 m

–reading the disturbance level by the EMI receiver with peak and average detectors (1 MHz bandwidth) according to ANSI C 63.4.

–measuring to vertical and horizontal polarization.

–calculating the measurement result with the following formula or equation:

(Result = Reading + Cor.F (antenna factor + cable loss – PreAmp Gain)

$$\begin{aligned} \text{(ex)} \quad &= 35.9 \text{ dB}\mu\text{V/m} + (23.92 \text{ dB(1/m)} + 7.01 \text{ dB} - 28.33 \text{ dB}) \\ &= 38.5 \text{ dB}\mu\text{V/m} \end{aligned}$$

4- List of Equipment Used For the Tests

Conducted Emissions

	Item	Model Name	Manufacturer	Serial No.	Next Cal.	Interval
☒	EMI TEST Receiver	ESR	Rohde & Schwarz	101499	2023.03.14	1 year
☒	Pulse Limiter	ESH3-Z2	Rohde & Schwarz	100710	2023.03.14	1 year
☐	LISN	ESH3-Z6	Rohde & Schwarz	100378	2023.08.29	1 year
☐	LISN	ESH3-Z6	Rohde & Schwarz	101468	2023.08.29	1 year
☒	LISN(main)	ENV216	Rohde & Schwarz	100408	2023.08.29	1 year
☐	LISN(sub)	LT32C/10	AFJ	32031518210	2023.08.29	1 year
☒	TEST PROGRAM	e3_ce 20181212a (V9)	AUDIX	-	-	-

Radiated Emissions – Below 1 GHz

	Item	Model Name	Manufacturer	Serial No.	Next Cal.	Interval
☒	EMI TEST Receiver	ESCI7	Rohde & Schwarz	100772	2023.08.29	1 year
☒	Amplifier	8447D	HP	1937A03453	2023.11.29	1 year
☒	BILOG Antenna	VULB 9168	SCHWARZBECK	775	2023.03.22	2 year
☒	TEST PROGRAM	e3 20181212a (V9)	AUDIX	-	-	-

Radiated Emissions – Above 1 GHz

	Item	Model Name	Manufacturer	Serial No.	Next Cal.	Interval
☒	EMI TEST Receiver	ESCI7	Rohde & Schwarz	100772	2023.08.29	1 year
☐	EMI TEST Receiver	ESU	Rohde & Schwarz	100092	2023.08.29	1 year
☒	Amplifier	8449B	Agilent	3008A02126	2023.03.14	1 year
☐	Amplifier	PAM-840A	COM-POWER	461314	2023.03.17	1 year
☐	HORN ANTENNA	3116B	ETS	133350	2024.03.22	2 year
☐	HORN ANTENNA	3116B	ETS	81109	2024.04.25	2 year
☒	HORN ANTENNA	3115	ETS	114105	2023.05.12	2 year
☒	TEST PROGRAM	e3 20181212a (V9)	AUDIX	-	-	-

5- EMISSION

5-1 Conducted Emissions

(LINE)

MODEL : MDS-2400



4, Songjuro 236 Beon-gil, Yangji-myeon
Cheoin-gu, Youngin-si, Gyeonggi-do
449-822 Korea
Tel:+82-31-3236008,9
Fax:+82-31-3236010

EUT /Model No. : MDS-2400

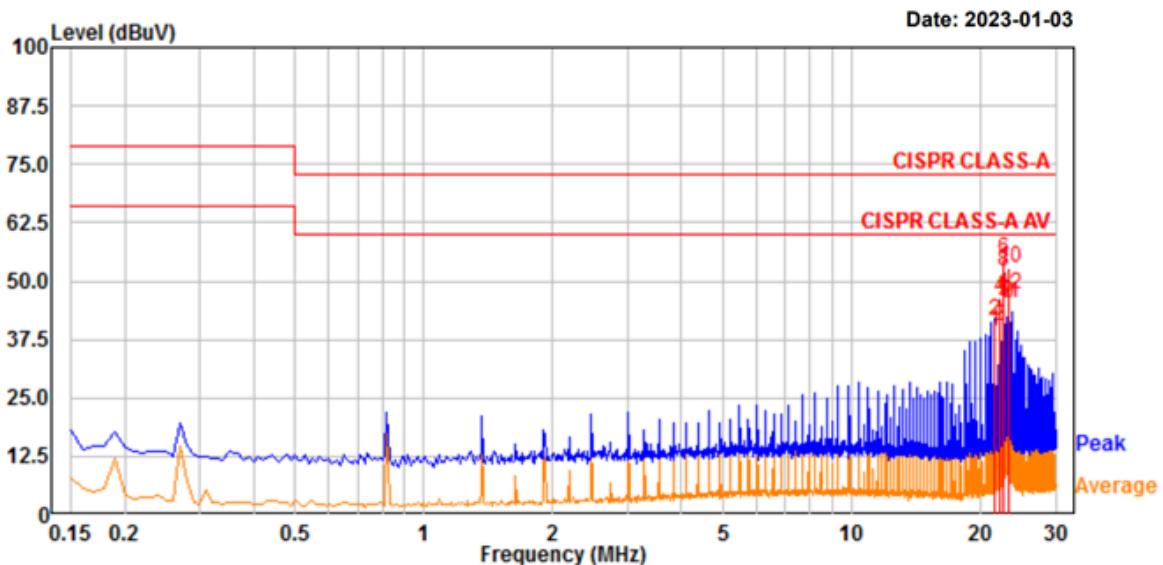
Phase : LINE

Test Mode : Operating mode

Test Power : 120 V / 60 Hz

Temp./ Humi. : 18 'C / 27 % R.H

Test Engineer : KIM J C



No.	Freq MHz	RD QP dBμV	RD AV dBμV	C.F dB	Result QP dBμV	Result AV dBμV	Limit QP dBμV	Limit AV dBμV	Margin QP dB	Margin AV dB	Phase
2.	21.608	21.50	19.25	20.06	41.56	39.31	73.00	60.00	31.44	20.69	Line
4.	22.166	26.53	20.46	20.06	46.59	40.52	73.00	60.00	26.41	19.48	Line
6.	22.704	34.72	25.64	20.07	54.79	45.71	73.00	60.00	18.21	14.29	Line
8.	22.708	31.96	25.60	20.07	52.03	45.67	73.00	60.00	20.97	14.33	Line
10.	23.241	32.70	25.17	20.07	52.77	45.24	73.00	60.00	20.23	14.76	Line
12.	23.253	27.13	25.07	20.07	47.20	45.14	73.00	60.00	25.80	14.86	Line

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss + Pulse Limiter

(NEUTRAL)



4, Songjuro 236 Beon-gil, Yangji-myeon
Cheoin-gu, Youngin-si, Gyeonggi-do
449-822 Korea
Tel:+82-31-3236008,9
Fax:+82-31-3236010

EUT /Model No. : MDS-2400

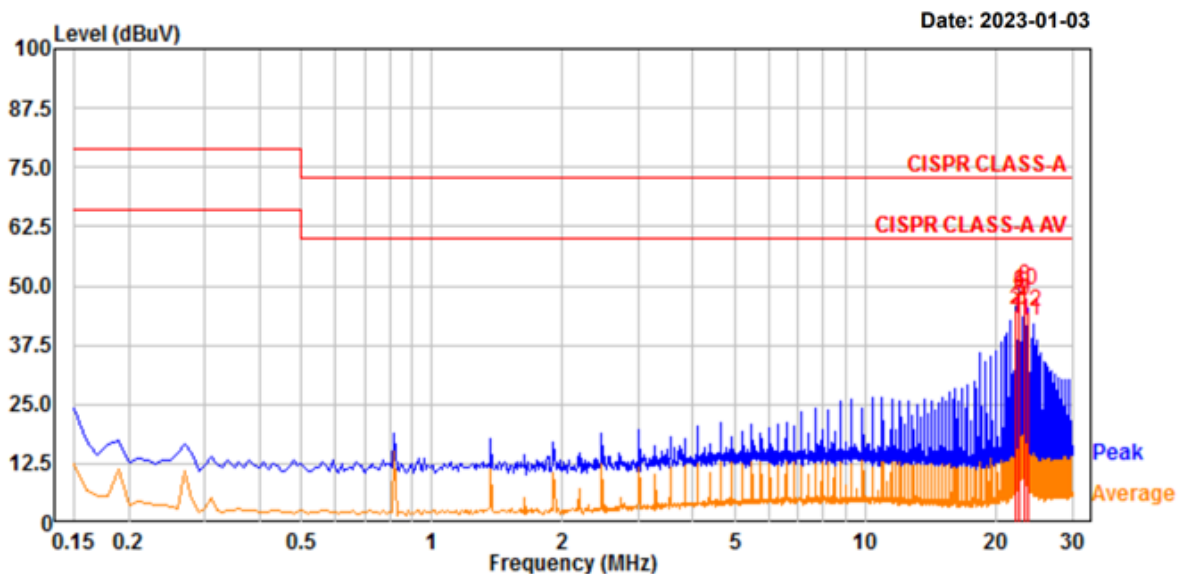
Phase : NEUTRAL

Test Mode : Operating mode

Test Power : 120 V / 60 Hz

Temp./ Humi. : 18 'C / 27 % R.H

Test Engineer : KIM J C



No.	Freq MHz	RD QP dBuV	RD AV dBuV	C.F dB	Result QP dBuV	Result AV dBuV	Limit QP dBuV	Limit AV dBuV	Margin QP dB	Margin AV dB	Phase
2.	22.155	24.84	22.96	20.08	44.92	43.04	73.00	60.00	28.08	16.96	neutral
4.	22.694	28.77	26.65	20.09	48.86	46.74	73.00	60.00	24.14	13.26	neutral
6.	22.697	28.69	26.85	20.09	48.78	46.94	73.00	60.00	24.22	13.06	neutral
8.	23.248	29.53	26.62	20.10	49.63	46.72	73.00	60.00	23.37	13.28	neutral
10.	23.249	28.89	26.74	20.10	48.99	46.84	73.00	60.00	24.01	13.16	neutral
12.	23.794	24.46	22.45	20.12	44.58	42.57	73.00	60.00	28.42	17.43	neutral

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss + Pulse Limiter

(LINE)

MODEL : MDS-3400



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EUT /Model No. : MDS-3400

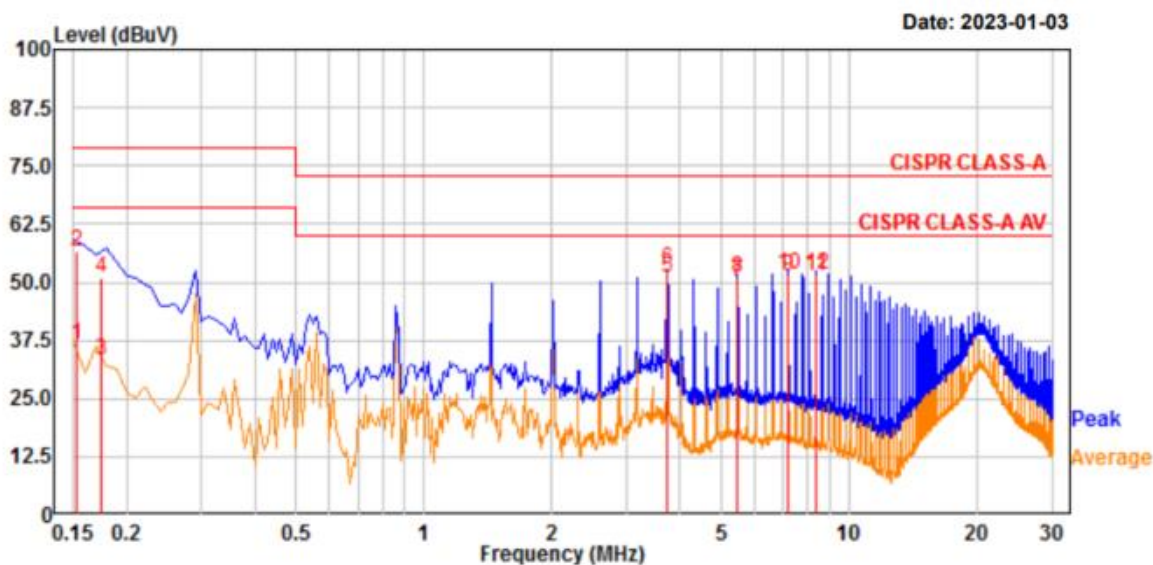
Phase : LINE

Test Mode : Operating mode

Test Power : 120 V / 60 Hz

Temp./ Humi. : 18 'C / 27 % R.H

Test Engineer : KIM J C



No.	Freq MHz	RD QP dBμV	RD AV dBμV	C.F dB	Result QP dBμV	Result AV dBμV	Limit QP dBμV	Limit AV dBμV	Margin QP dB	Margin AV dB	Phase
2.	0.152	36.97	17.12	19.46	56.43	36.58	79.00	66.00	22.57	29.42	Line
4.	0.175	31.52	13.88	19.46	50.98	33.34	79.00	66.00	28.02	32.66	Line
6.	3.742	33.30	31.23	19.61	52.91	50.84	73.00	60.00	20.09	9.16	Line
8.	5.471	31.29	30.56	19.66	50.95	50.22	73.00	60.00	22.05	9.78	Line
10.	7.197	32.10	31.49	19.72	51.82	51.21	73.00	60.00	21.18	8.79	Line
12.	8.348	31.97	31.49	19.75	51.72	51.24	73.00	60.00	21.28	8.76	Line

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss + Pulse Limiter

(NEUTRAL)



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EUT /Model No. : MDS-3400

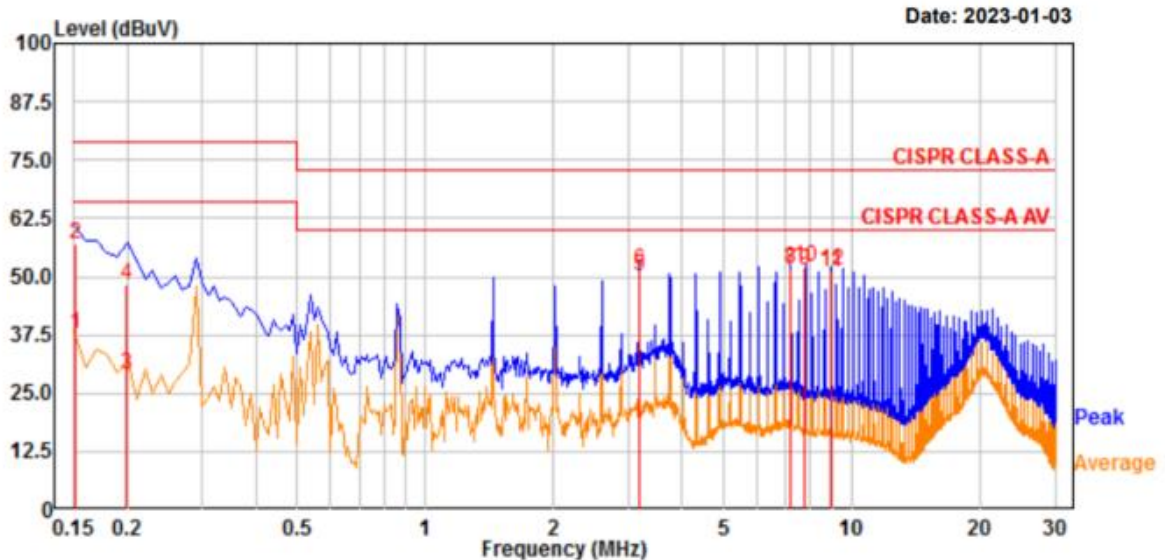
Phase : NEUTRAL

Test Mode : Operating mode

Test Power : 120 V / 60 Hz

Temp./ Humi. : 18 'C / 27 % R.H

Test Engineer : KIM J C



No.	Freq MHz	RD QP dBμV	RD AV dBμV	C.F dB	Result QP dBμV	Result AV dBμV	Limit QP dBμV	Limit AV dBμV	Margin QP dB	Margin AV dB	Phase
2.	0.152	37.43	18.44	19.41	56.84	37.85	79.00	66.00	22.16	28.15	neutral
4.	0.199	28.95	9.77	19.42	48.37	29.19	79.00	66.00	30.63	36.81	neutral
6.	3.168	31.82	30.67	19.57	51.39	50.24	73.00	60.00	21.61	9.76	neutral
8.	7.201	32.17	31.54	19.70	51.87	51.24	73.00	60.00	21.13	8.76	neutral
10.	7.776	32.18	31.50	19.73	51.91	51.23	73.00	60.00	21.09	8.77	neutral
12.	8.927	31.58	31.08	19.77	51.35	50.85	73.00	60.00	21.65	9.15	neutral

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss + Pulse Limiter

5-2 Radiated Emissions (FCC)

(Below 1 GHz) / V

MODEL : MDS-2400



4, Songjuro 236Beon-gil, yanggi-myeon,
Yongin-si, Gyeonggi-do, Korea
Tel : +82-31-3236008,9
Fax : +82-31-3236010
www.ltalab.com

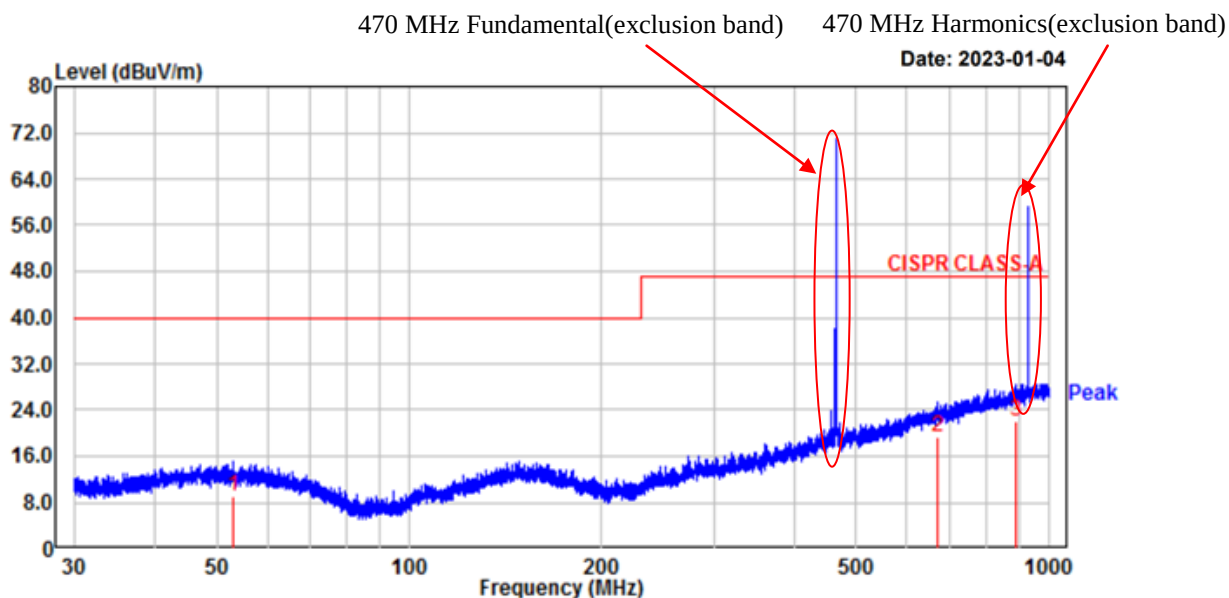
EUT/Model No.: MDS-2400

Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
1.	53.15	20.11	-11.09	9.02	40.00	30.98	110	189	vertical
2.	670.20	18.60	0.87	19.47	47.00	27.53	153	111	vertical
3.	887.22	17.40	4.56	21.96	47.00	25.04	100	96	vertical

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

MODEL : MDS-3400



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EUT/Model No.: MDS-3400

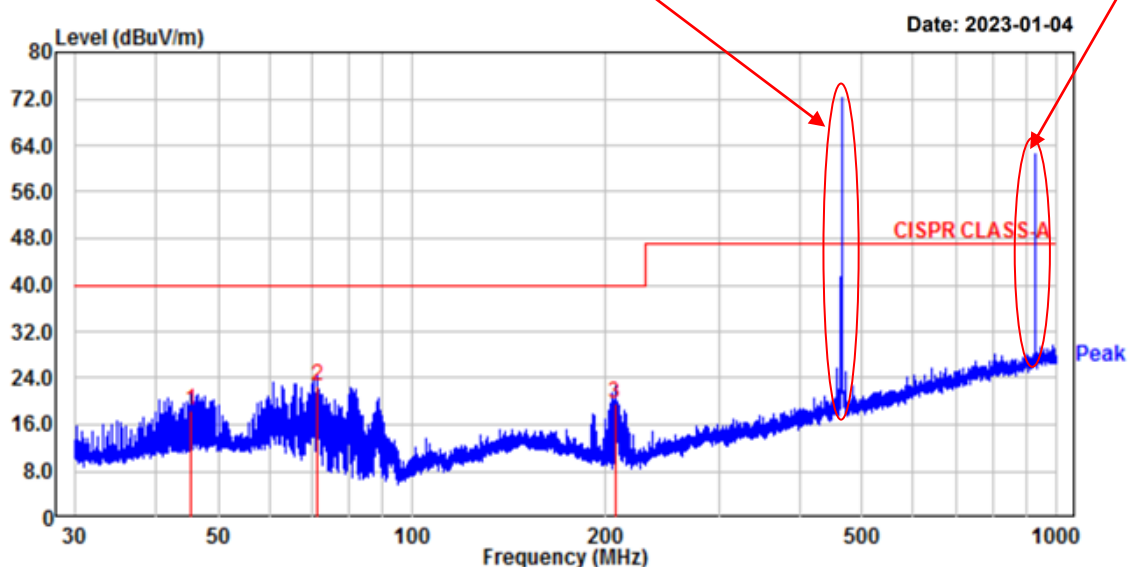
Temp/Humi: 16 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz

470 MHz Fundamental(exclusion band) 470 MHz Harmonics(exclusion band)



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
1.	45.48	29.87	-11.36	18.51	40.00	21.49	122	224	vertical
2.	71.11	35.71	-13.18	22.53	40.00	17.47	105	312	vertical
3.	206.49	32.74	-13.06	19.68	40.00	20.32	145	112	vertical

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

(Below 1 GHz) / H

MODEL : MDS-2400



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EUT/Model No.: MDS-2400

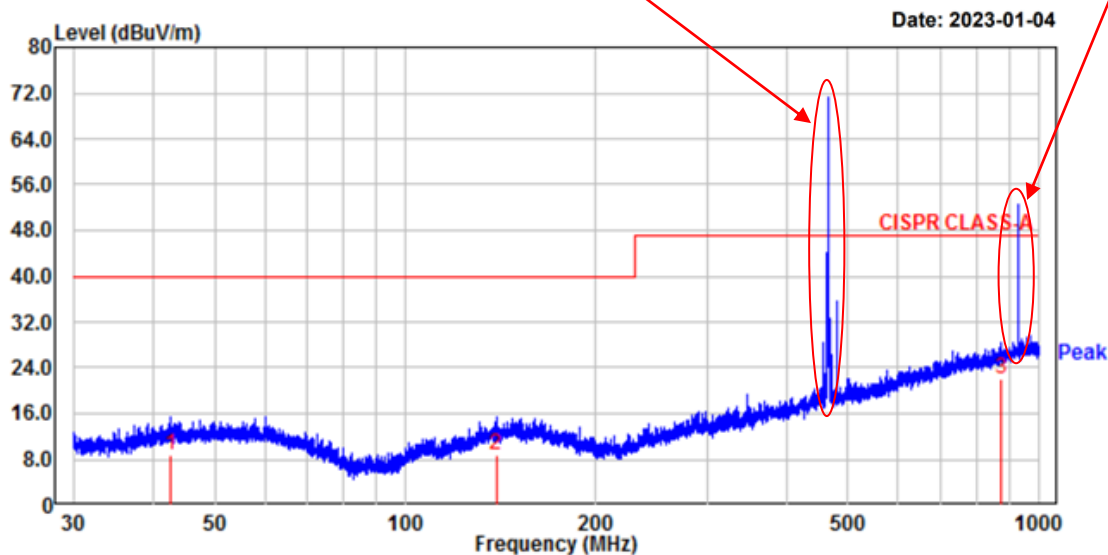
Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz

470 MHz Fundamental(exclusion band) 470 MHz Harmonics(exclusion band)



No.	Freq MHz	Reading dBuV	C.F dB	Result QP dBuV/m	Limit dBuV/m	Margin dB	Height cm	Angle deg	Polarity
1.	42.60	20.50	-11.63	8.87	40.00	31.13	330	130	horizontal
2.	139.06	19.69	-10.82	8.87	40.00	31.13	300	220	horizontal
3.	869.89	17.80	4.29	22.09	47.00	24.91	395	165	horizontal

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

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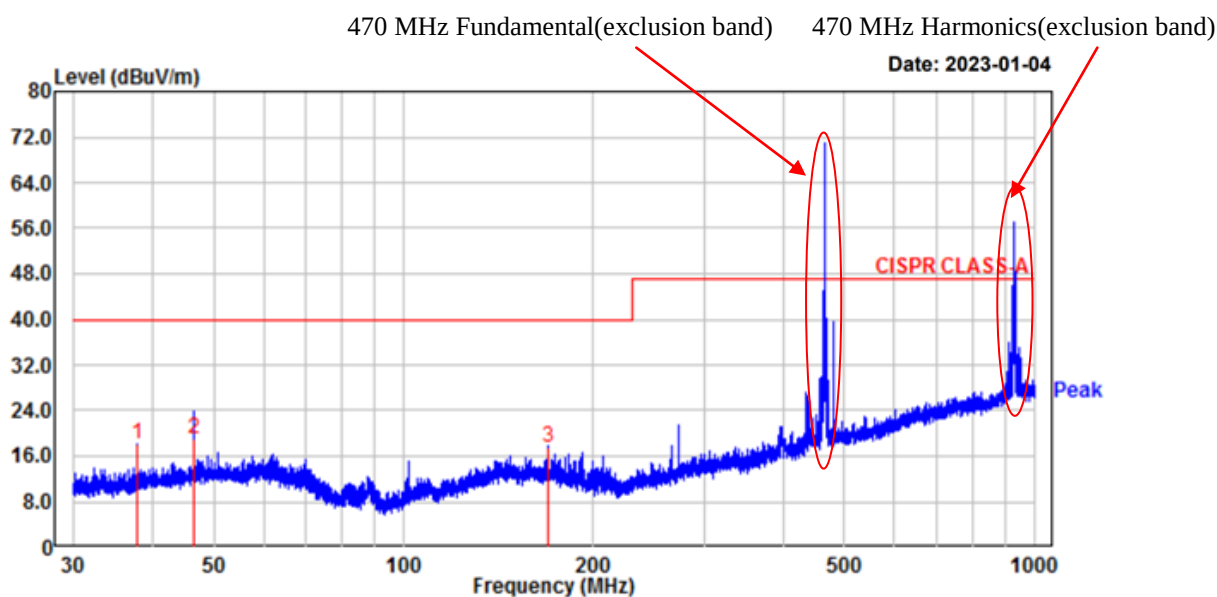
EUT/Model No.: MDS-3400

Temp/Humi: 16 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
1.	37.73	30.18	-12.21	17.97	40.00	22.03	311	120	horizontal
2.	46.52	30.10	-11.20	18.90	40.00	21.10	400	285	horizontal
3.	169.01	28.15	-10.59	17.56	40.00	22.44	345	193	horizontal

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

Radiated Emissions (IC)

(Below 1 GHz) / V

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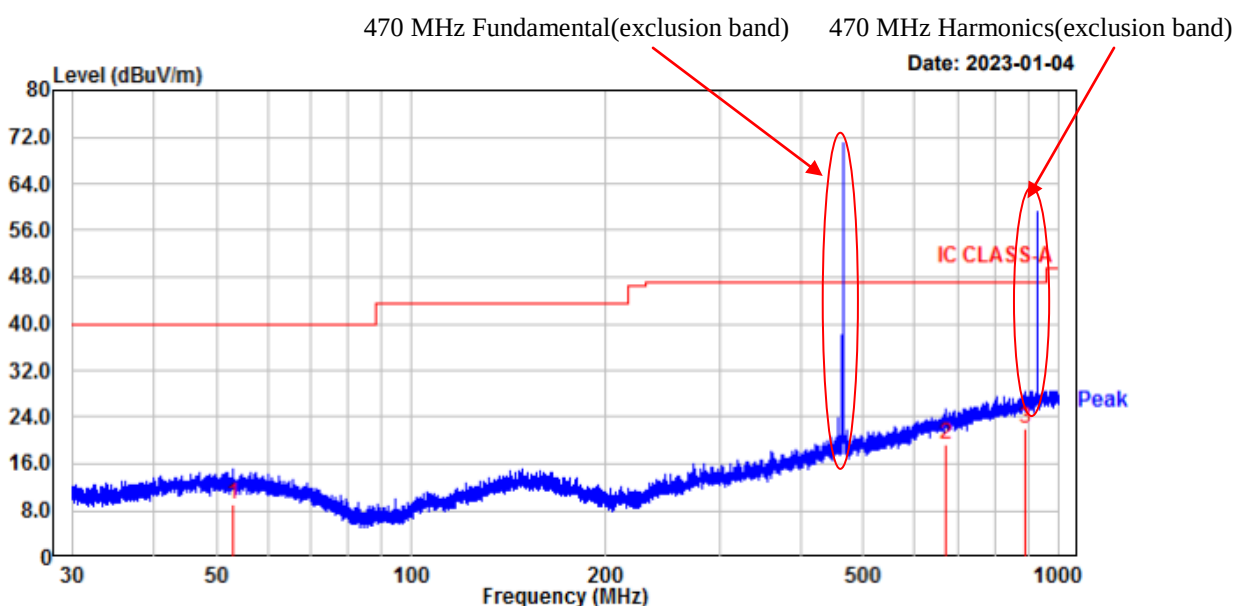
EUT/Model No.: MDS-2400

Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
1.	53.15	20.11	-11.09	9.02	40.00	30.98	110	189	vertical
2.	670.20	18.60	0.87	19.47	47.00	27.53	153	111	vertical
3.	887.22	17.40	4.56	21.96	47.00	25.04	100	96	vertical

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

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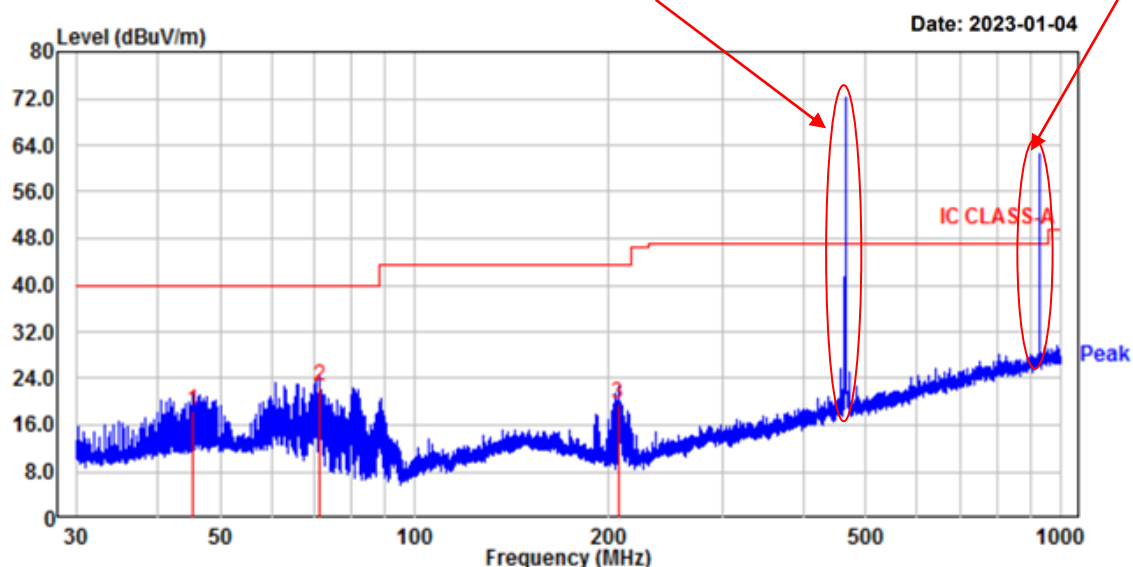
Temp/Humi: 16 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz

470 MHz Fundamental(exclusion band) 470 MHz Harmonics(exclusion band)



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2.	71.11	35.71	-13.18	22.53	40.00	17.47	105	312	vertical
3.	206.49	32.74	-13.06	19.68	43.50	23.82	145	112	vertical

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

(Below 1 GHz) / H

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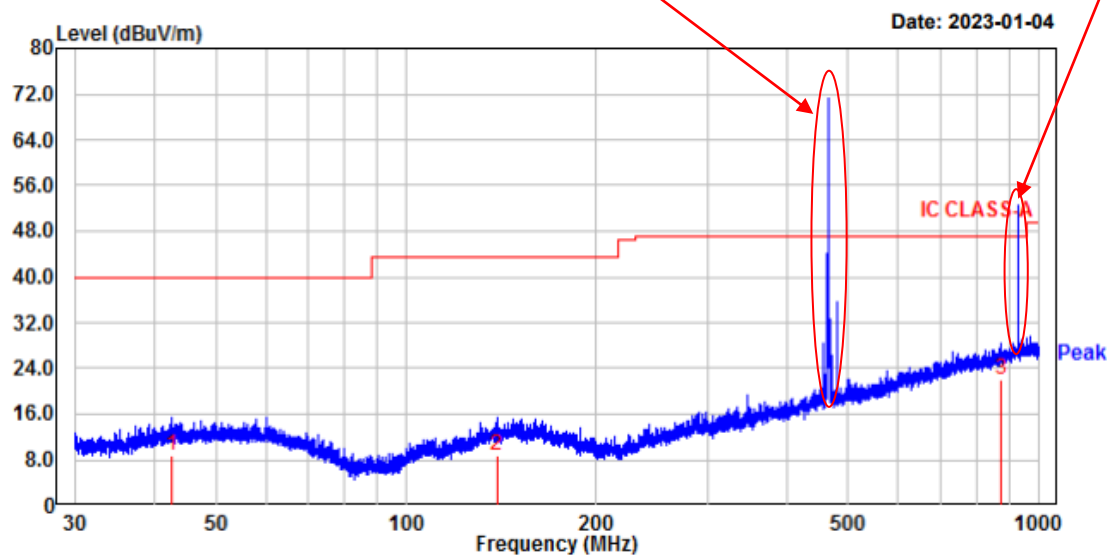
Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz

470 MHz Fundamental(exclusion band) 470 MHz Harmonics(exclusion band)



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
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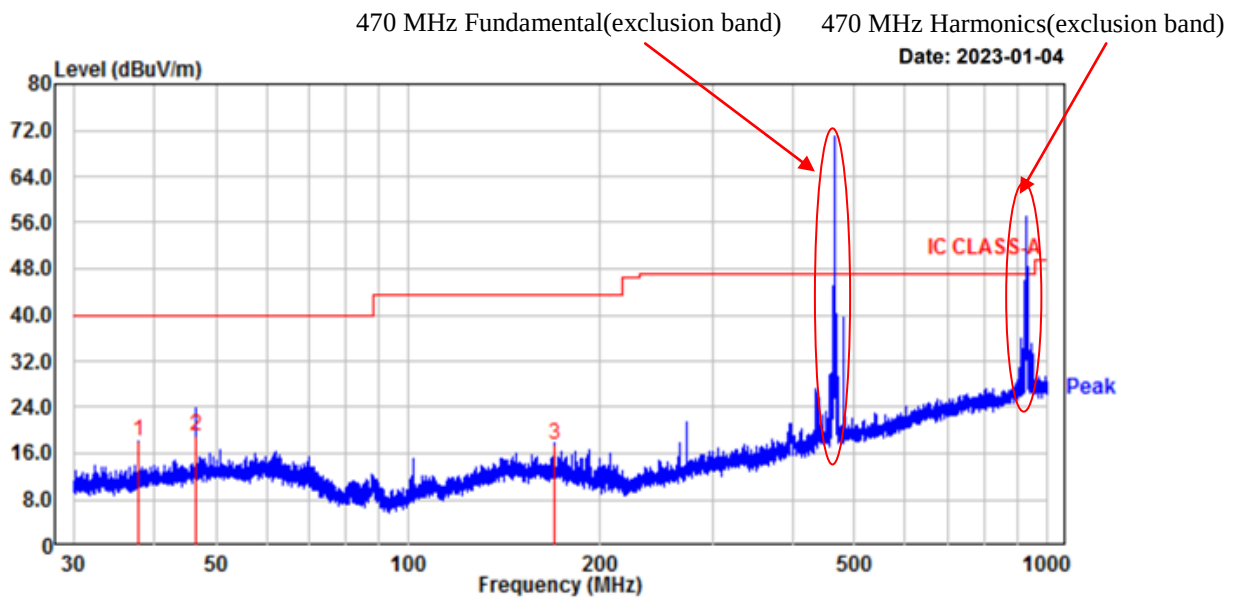
EUT/Model No.: MDS-3400

Temp/Humi: 16 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



No.	Freq MHz	Reading dBμV	C.F dB	Result QP dBμV/m	Limit dBμV/m	Margin dB	Height cm	Angle deg	Polarity
1.	37.73	30.18	-12.21	17.97	40.00	22.03	311	120	horizontal
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3.	169.01	28.15	-10.59	17.56	43.50	25.94	345	193	horizontal

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

Radiated Emissions (FCC / IC)

(Above 1 GHz) / V

MODEL : MDS-2400

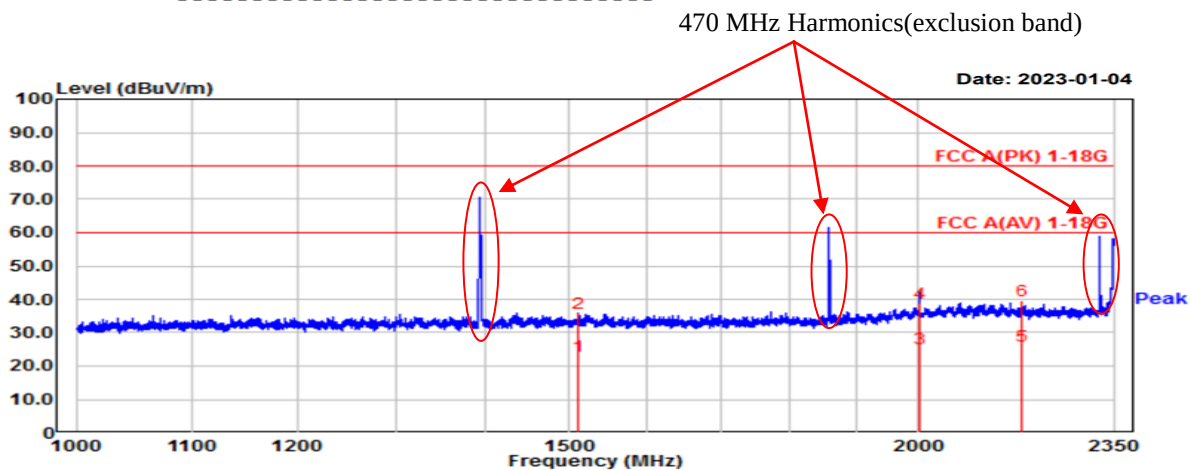
EUT/Model No. : MDS-2400

Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



(Above 1 GHz) / H

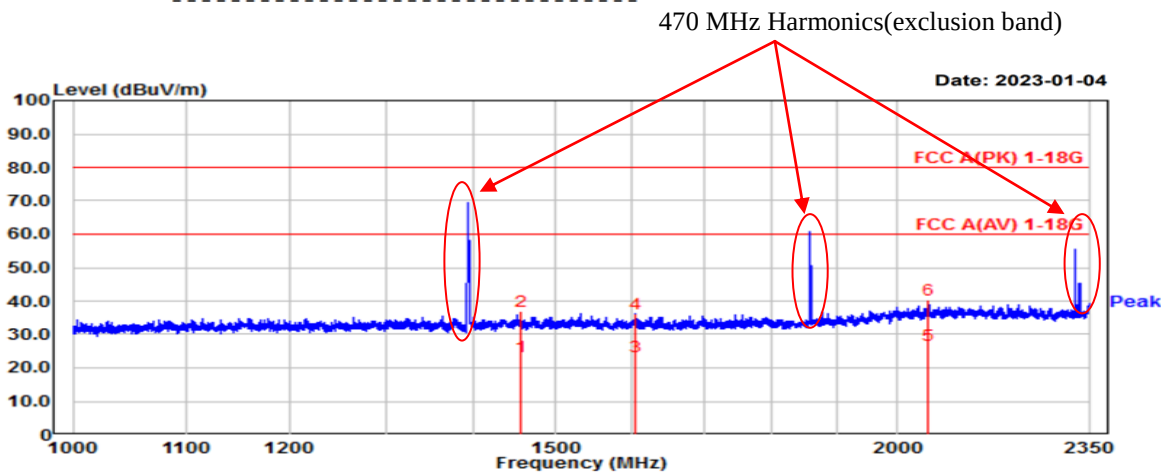
EUT/Model No. : MDS-2400

Temp/Humi: 17 'C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



TEST mode : Operating mode

Frequency MHz	Reading(PK) dBuV	Reading(AV) dBuV	C.F dB	Result(PK) dBuV/m	Result(AV) dBuV/m	Limit(PK) dBuV/m	Limit(AV) dBuV/m	Margin(PK) dB	Margin(AV) dB	Height cm	Angle deg	Polarity H/V
1455.45	43.55	30.15	-4.64	38.91	25.51	80.00	60.00	41.09	34.49	120	191	H
1604.51	42.75	29.75	-4.40	38.35	25.35	80.00	60.00	41.65	34.65	125	117	H
2053.03	41.95	28.65	0.37	42.32	29.02	80.00	60.00	37.68	30.98	110	314	H
1510.43	42.25	29.45	-4.35	37.90	25.10	80.00	60.00	42.10	34.90	115	274	V
2002.35	41.05	27.45	-0.30	40.75	27.15	80.00	60.00	39.25	32.85	120	158	V
2177.91	41.24	27.44	0.54	41.78	27.98	80.00	60.00	38.22	32.02	105	53	V

(Above 1 GHz) / V

MODEL : MDS-3400

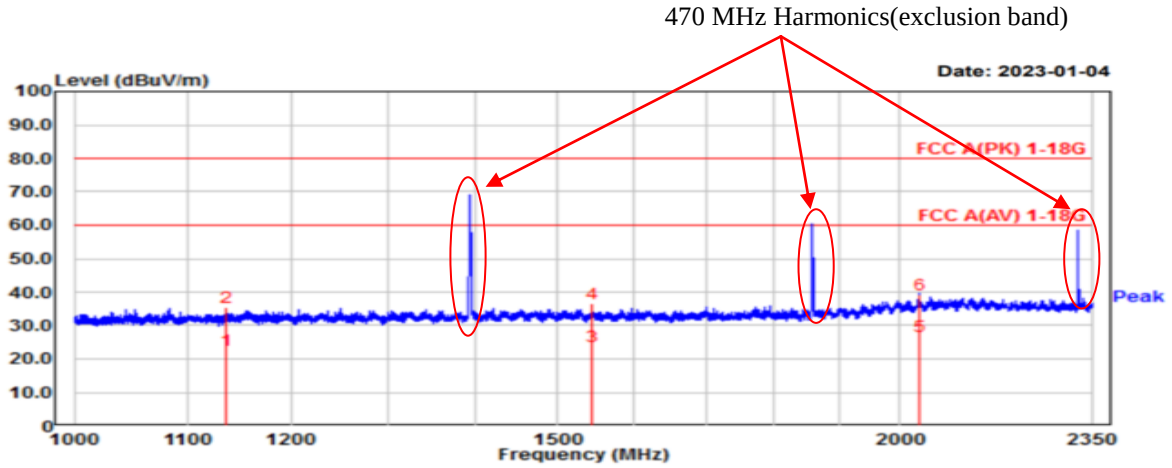
EUT/Model No. : MDS-3400

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Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



(Above 1 GHz) / H

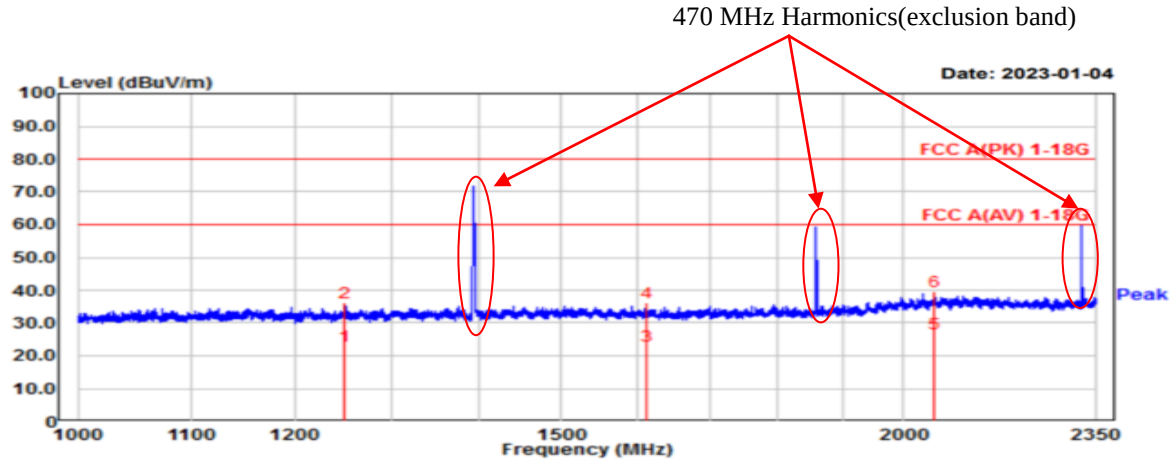
EUT/Model No. : MDS-3400

Temp/Humi: 17 °C / 27 % R.H.

Test Mode : Operating mode

Tested by: KIM J C

Power : 120 V / 60 Hz



TEST mode : Operating mode

Frequency MHz	Reading(PK) dBuV	Reading(AV) dBuV	C.F dB	Result(PK) dBuV/m	Result(AV) dBuV/m	Limit(PK) dBuV/m	Limit(AV) dBuV/m	Margin(PK) dB	Margin(AV) dB	Height cm	Angle deg	Polarity H/V
1250.53	43.93	30.53	-5.85	38.08	24.68	80.00	60.00	41.92	35.32	100	220	H
1610.47	42.62	29.12	-4.39	38.23	24.73	80.00	60.00	41.77	35.27	120	119	H
2052.75	40.92	28.42	0.37	41.29	28.79	80.00	60.00	38.71	31.21	105	318	H
1135.92	44.12	31.12	-6.73	37.39	24.39	80.00	60.00	42.61	35.61	108	108	V
1544.41	42.83	29.93	-4.42	38.41	25.51	80.00	60.00	41.59	34.49	206	206	V
2031.44	41.01	28.41	0.10	41.11	28.51	80.00	60.00	38.89	31.49	100	170	V

Conclusions

Product models "**MDS-2400**" meets all of the Class A requirements of the FCC Part 15, Subpart B. Limits of radio disturbance characteristics of ITE).

(Refer to Test Specification and Test Results in the "LTA certification", page 4 and 5)

- The highest internal source of an EUT is higher than 108 MHz, the measurement shall be made up to 2.35 GHz.

(The highest internal source of an EUT : 470 MHz)