



## FCC Part15, Subpart B ICES-003

## **TEST REPORT**

For

## Z-Wave In-Wall Switch / Dimmer

## MODEL NUMBER: WD700

### FCC ID: 2AMY9WD700

## **REPORT NUMBER: 4789810769-2**

## ISSUE DATE: July 28, 2021

Prepared for

Golden Mark (HK) Limited 6/F., Kimberley Plaza, 45-47 Kimberley Road, Tsim Sha Tsui, Kowloon, Hong Kong

Prepared by

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### **Revision History**

Rev.	Issue Date	Revisions	Revised By
V0	7/28/2021	Initial Issue	



Summary of Test Results					
Standard	Test Item	Limit	Result	Remark	
FCC Part15, Subpart B	Conducted Disturbance	Class B	PASS	NOTE (2)	
ANSI C63.4-2014	Radiated Disturbance below 1 GHz	Class B	PASS		
ICES-003 Issue 7	Radiated Disturbance above 1 GHz	Class B	PASS	NOTE (3)	

Note:

(1) "N/A" denotes test is not applicable in this test report.

(2) This test is only applicable for devices which can be charged or powered by AC power cable.

(3) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the

measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz,

measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.

(4) This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

(5) The measurement result for the sample received is <Pass> according to < FCC Part15, Subpart B and ICES-003 Issue 7 > when <Accuracy Method> decision rule is applied.



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## **1. ATTESTATION OF TEST RESULTS**

### Applicant Information

Company Name:	Golden Mark (HK) Limited
Address:	6/F., Kimberley Plaza, 45-47 Kimberley Road, Tsim Sha Tsui,
	Kowloon, Hong Kong

#### Manufacturer Information

Tsim Sha Tsui,
Т

### **EUT Information**

EUT Name:	Z-Wave In-Wall Switch / Dimmer	
Model:	WD700	
Sample Received Date:	March 30, 2021	
Sample Status:	Normal	
Sample ID:	3738779	
Date of Tested:	March 30, 2021~ July 28, 2020	

APPLICABLE STANDARDS				
STANDARD TEST RESUL				
FCC Part15, Subpart B	PASS			
ICES-003 Issue 7	PASS			

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# 2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC Part15 Subpart B & ICES-003 Issue 7 & ANSI C63.4-2014.

# 3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4102.01)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with A2LA.
	FCC (FCC Designation No.: CN1187)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Has been recognized to perform compliance testing on equipment subject to
	the Commission's Delcaration of Conformity (DoC) and Certification rules
	ISED (Company No.: 21320)
Accreditation	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Certificate	has been registered and fully described in a report filed with ISED.
Contineate	The Company Number is 21320 and the test lab Conformity Assessment
	Body Identifier (CABID) is CN0046.
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with VCCI, the
	Membership No. is 3793.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20019 and R-20004
	Shielding Room B, the VCCI registration No. is C-20012 and T-20011

Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China



# 4. CALIBRATION AND UNCERTAINTY

## 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

## 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	к	U(dB)
Conducted emissions from the AC mains power ports	0.009 MHz ~ 0.15 MHz	2	4.00
Conducted emissions from the AC mains power ports	0.15 MHz ~ 30 MHz	2	3.62
Radiated emissions	30 MHz ~ 1 GHz	2	4.00
Radiated emissions	1 GHz ~ 18 GHz	2	5.78
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.			

# 5. EQUIPMENT UNDER TEST

## 5.1. DESCRIPTION OF EUT

EUT Name	Z-Wave In-Wall Switch / Dimmer
Model Name	WD700
Power supply	120V, 60Hz

## 5.2. TEST MODE

Test Mode	Description	
Mode 1	Mode 1 Running (connect the output to lamp and power on)	
Mode 1 Z-Wave Receiving		

## 5.3. EUT ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

## 5.4. SUPPORT UNITS FOR SYSTEM TEST

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Series No.
1	Lamp	/	/	/	/

The following cables were used to form a representative test configuration during the tests.

Item	Type of cable	Shielded Type	Ferrite Core	Specification
1	AC	NO	NO	0.2m



## 6. MEASURING EQUIPMENT AND SOFTWARE USED

Conducted Emissions							
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date		
EMI Test Receiver	R&S	ESR3	101961	Nov. 12, 2020	Nov. 11, 2021		
Two-Line V- Network	R&S	ENV216	101983	Nov. 12, 2020	Nov. 11, 2021		
Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Nov. 12, 2020	Nov. 11, 2021		
		Sc	oftware				
[	Description		Manufacturer	Name	Version		
Test Software	for Conducted	Emissions	Farad	EZ-EMC	Ver. UL-3A1		
	Radiated Emissions						
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date		
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Nov. 12, 2020	Nov. 11, 2021		
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Aug. 11, 2018	Aug. 10, 2021		
Preamplifier	HP	8447D	2944A09099	Nov. 12, 2020	Nov. 11, 2021		
EMI Measurement Receiver	R&S	ESR26	101377	Nov. 12, 2020	Nov. 11, 2021		
Horn Antenna	TDK	HRN-0118	130939	Sept. 17, 2018	Sept. 17, 2021		
Preamplifier	TDK	PA-02-0118	TRS-305- 00067	Nov. 20, 2020	Nov. 19, 2021		
		Sc	ftware				
[	Description		Manufacturer	Name	Version		
Test Software	for Radiated E	missions	Farad	EZ-EMC	Ver. UL-3A1		

## 7. EMISSION TEST

## 7.1. CONDUCTED EMISSIONS MEASUREMENT

### LIMITS

CFR 47 FCC Part15 Subpart B ICES-003 Issue 7							
FREQUENCY	Class A (dBµV) Class B (dBµV)						
(MHz)	Quasi-peak Average		Quasi-peak	Average			
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46*			
0.50 -5.0	73.00	60.00	56.00	46.00			
5.0 -30.0	73.00	60.00	60.00	50.00			

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

### The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### TEST PROCEDURE

1. The testing follows the guidelines in ANSI C63.4-2014.

2. The EUT was placed on the top of a rotating table 0.8 meters above the horizontal ground plane and being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

3. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

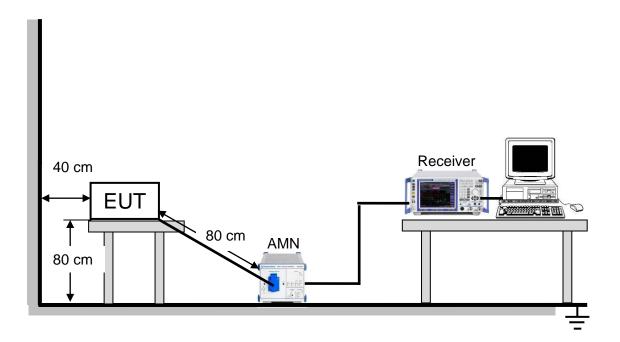
4. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

5. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.

6. LISN at least 80 cm from nearest part of EUT chassis.

7. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

#### TEST SETUP



For the actual test configuration, please refer to Appendix I: Photographs of Test Configuration.

#### TEST ENVIRONMENT

Temperature	24.7 °C	Relative Humidity	69.3 %
Atmosphere Pressure	101 kPa		

#### TEST MODE

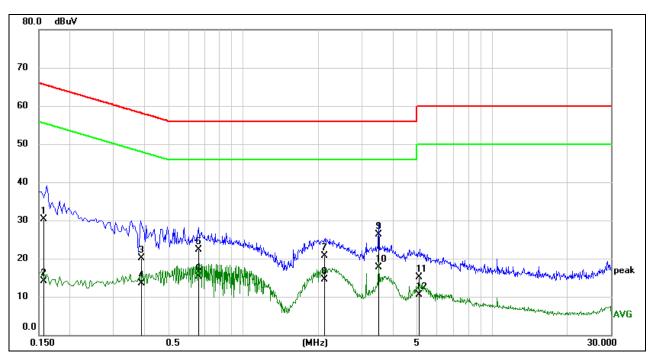
Pre-test Mode:	Mode 1 & 2
Final Test Mode:	Mode 1

Note: All test modes have been tested, but only the worst case data recorded in the report.



### TEST RESULTS

Conducted Emissions						
Test Mode:	Mode 1	Phase:	Line			
Test Voltage						



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> )	(dBuV)	(dBuV)	( <b>dB</b> )	
1	0.1577	20.65	9.59	30.24	65.58	-35.34	QP
2	0.1577	4.48	9.59	14.07	55.58	-41.51	AVG
3	0.3892	10.44	9.59	20.03	58.08	-38.05	QP
4	0.3892	3.83	9.59	13.42	48.08	-34.66	AVG
5	0.6583	12.80	9.60	22.40	56.00	-33.60	QP
6	0.6583	5.62	9.60	15.22	46.00	-30.78	AVG
7	2.1025	11.00	9.63	20.63	56.00	-35.37	QP
8	2.1025	4.80	9.63	14.43	46.00	-31.57	AVG
9	3.4958	16.74	9.61	26.35	56.00	-29.65	QP
10	3.4958	8.01	9.61	17.62	46.00	-28.38	AVG
11	5.0966	5.45	9.62	15.07	60.00	-44.93	QP
12	5.0966	0.89	9.62	10.51	50.00	-39.49	AVG

Note: 1. Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor) 2. Margin = Result - Limit



			Conduc	ted Emissio	ns		
Test Mo	de:	Mode 1		Phas	se:	Neutral	
Test Vol		AC 120 V	//60 Hz				
1000 001	lago	1201	700112				
80.0 dBu	v						
70							
60							
50							
40							
MA							
30 1 ×	myathe						
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20	3 3 4	WHM MAN WARMAN	www.		Analywar willing and	Marin Marin Malan Marin	h. May Ar Al Mar Mar Mar peak
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10 0.0	Frequency	Reading	Correct	Hz)	5 Limit	Margin	here was descendence in AVG
10 0.0 0.150	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Hz) Result (dBuV)	5 Limit (dBuV)	Margin (dB)	30.000 Remark
10 0.0 0.150 No.	Frequency	Reading	Correct	Hz)	5 Limit	Margin	AVG 30.000 Remark
10 0.0 0.150 No.	<b>Frequency</b> (MHz) 0.1693	<b>Reading</b> (dBuV) 18.36	Correct (dB) 9.59	Hz) Result (dBuV) 27.95	5 5 Limit (dBuV) 64.99	Margin (dB) -37.04	Auropenden and Auropenden AvG 30.000 Remark QP AVG
10 0.0 0.150 No. 1 2	Frequency (MHz) 0.1693 0.1693	Reading           (dBuV)           18.36           3.07	Correct (dB) 9.59 9.59	Hz) Result (dBuV) 27.95 12.66	5 5 <b>Limit</b> (dBuV) 64.99 54.99	Margin (dB) -37.04 -42.33	AVG 30.000 Remark
10 0.0 0.150 No. 1 2 3	<b>Frequency</b> (MHz) 0.1693 0.1693 0.3891	Reading           (dBuV)           18.36           3.07           9.56	Correct (dB) 9.59 9.59 9.59 9.59 9.59	Result (dBuV) 27.95 12.66 19.15	5 <b>Limit</b> (dBuV) 64.99 54.99 58.08	Margin (dB) -37.04 -42.33 -38.93 -36.34	Average Averag
10 0.0 0.150 No. 1 2 3 4 5	<b>Frequency</b> (MHz) 0.1693 0.3891 0.3891 2.1652	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49	Correct           (dB)           9.59           9.59           9.59           9.59           9.59           9.59           9.59           9.59           9.59           9.59	<b>Result</b> (dBuV) 27.95 12.66 19.15 11.74 18.12	5 5 Limit (dBuV) 64.99 54.99 58.08 48.08 56.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -37.88	AVG QP AVG QP AVG QP
10 0.0 0.150 No. 1 2 3 4	Frequency (MHz) 0.1693 0.3891 0.3891 2.1652 2.1652	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95	Correct (dB) 9.59 9.59 9.59 9.59 9.59	<b>Result</b> (dBuV) 27.95 12.66 19.15 11.74 18.12 13.58	5 <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -37.88 -32.42	AVG QP AVG QP AVG QP AVG QP AVG
10 0.0 0.150 No. 1 2 3 4 5 6 7	<b>Frequency</b> (MHz) 0.1693 0.3891 0.3891 2.1652 2.1652 3.4959	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95           16.69	Correct           (dB)           9.59           9.59           9.59           9.59           9.59           9.63           9.61	Result           (dBuV)           27.95           12.66           19.15           11.74           18.12           13.58           26.30	<b>5</b> <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00 56.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -37.88 -32.42 -29.70	Average Averag
10 0.0 0.150 No. 1 2 3 4 5 6	Frequency (MHz) 0.1693 0.3891 0.3891 0.3891 2.1652 2.1652 3.4959 3.4959	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95	Correct           (dB)           9.59           9.59           9.59           9.59           9.63           9.61	<b>Result</b> (dBuV) 27.95 12.66 19.15 11.74 18.12 13.58	5 <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -37.88 -32.42	Average Averag
10 0.0 0.150 No. 1 2 3 4 5 6 7 8 9	Frequency (MHz) 0.1693 0.1693 0.3891 0.3891 2.1652 2.1652 2.1652 3.4959 3.4959 3.9266	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95           16.69           7.77           4.80	Correct           (dB)           9.59           9.59           9.59           9.59           9.63           9.63           9.61           9.60	Result (dBuV) 27.95 12.66 19.15 11.74 18.12 13.58 26.30 17.38 14.40	<b>5</b> <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00 56.00 46.00 56.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -32.42 -29.70 -28.62 -41.60	AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP
10 0.0 0.150 No. 1 2 3 4 5 6 7 8 9 10	<b>Frequency</b> (MHz) 0.1693 0.1693 0.3891 0.3891 2.1652 2.1652 2.1652 3.4959 3.4959 3.9266 3.9266	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95           16.69           7.77           4.80           1.16	Correct           (dB)           9.59           9.59           9.59           9.59           9.59           9.63           9.63           9.61           9.60	Result (dBuV) 27.95 12.66 19.15 11.74 18.12 13.58 26.30 17.38 14.40 10.76	<b>5</b> <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00 56.00 46.00 56.00 46.00 56.00 46.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -37.88 -32.42 -29.70 -28.62 -41.60 -35.24	Remark QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG
10 0.0 0.150 No. 1 2 3 4 5 6 7 8 9	Frequency (MHz) 0.1693 0.1693 0.3891 0.3891 2.1652 2.1652 2.1652 3.4959 3.4959 3.9266	Reading           (dBuV)           18.36           3.07           9.56           2.15           8.49           3.95           16.69           7.77           4.80	Correct           (dB)           9.59           9.59           9.59           9.59           9.63           9.63           9.61           9.60	Result (dBuV) 27.95 12.66 19.15 11.74 18.12 13.58 26.30 17.38 14.40	<b>5</b> <b>Limit</b> (dBuV) 64.99 54.99 58.08 48.08 56.00 46.00 56.00 46.00 56.00	Margin (dB) -37.04 -42.33 -38.93 -36.34 -32.42 -29.70 -28.62 -41.60	AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP AVG QP

Note: 1. Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor) 2. Margin = Result - Limit



## 7.2. RADIATED EMISSIONS MEASUREMENT

#### LIMITS

Below 1 GHz

	CFR 47 FCC Part 15 Subpart B						
Frequency	Class A	Class B					
(MHz)	Field strength (dBuV/m) (at 3 m)	Field strength (dBuV/m) (at 3 m)					
30 - 88	49.5	40					
88 - 216	53.9	43.5					
216 - 960	56.9	46					
Above 960	60	54					

	ICES-003 Issue 7						
Frequency	Class A	Class B					
(MHz)	Field strength (dBuV/m) (at 3 m)	Field strength (dBuV/m) (at 3 m)					
30 - 88	50	40					
88 - 216	54	43.5					
216 - 230	56.9	46					
230 - 960	57	47					
Above 960	60	54					

Note: The different between FCC Part 15 Subpart B limit and ICES-003 Issue 7 limit is only in frequency band 230 MHz to 960 MHz, the limit of FCC Part 15 Subpart B is 1 dB smaller than the limit of ICES-003 Issue 7, if the test result complies with FCC Part 15 Subpart B limit, it deemed to comply with ICES-003 Issue 7 limit.

Above 1 GHz

CFR 47 FCC Part 15 Subpart B						
ICES-003 Issue 7						
Frequency	Class A Class B					
Frequency (MHz)	(dBuV/m	) (at 3 m)	(dBuV/m) (at 3 m)			
	Peak Average		Peak	Average		
Above 1000	80	60	74	54		



#### Test Frequency Range of Radiated Disturbance Measurement

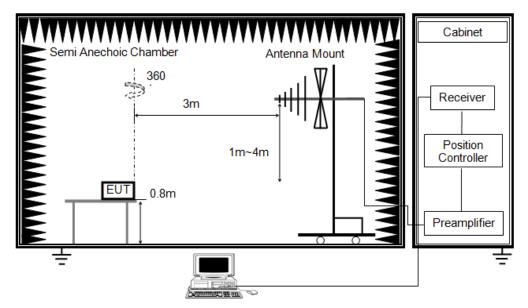
Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m), 3m Emission level = 10 m Emission level + 20log(10 m/3 m);

### TEST SETUP AND PROCEDURE

Below 1 GHz and above 30 MHz



The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak and QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.4-2014.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp was used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

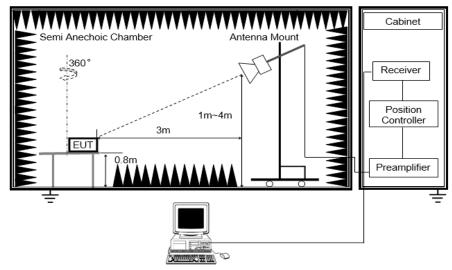
5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

6. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.

7. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

8. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

Above 1 GHz



The setting of the spectrum analyser

RBW	1 MHz
VBW	3 MHz
Sweep	Auto
LINTOCTOR	Peak: Peak AVG: RMS
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.4-2014.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

6. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.

7. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

8. For measurement above 1 GHz, the peak emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the peak limit specified in Section 15.109. If peak result complies with average limit, average result is deemed to comply with average limit.

9. The average emission measurement will be measured by the RMS detector and must comply with the average limit specified in Section 15.109.



### TEST ENVIRONMENT

Radiated Emissio	ns - Below 1 GHz	Radiated Emissions - Above 1 GHz		
Temperature:	25.3 °C	Temperature:	25.4 °C	
Humidity:	67.0 %	Humidity:	59.7 %	
Atmosphere Pressure	101 kPa	Atmosphere Pressure	101 kPa	

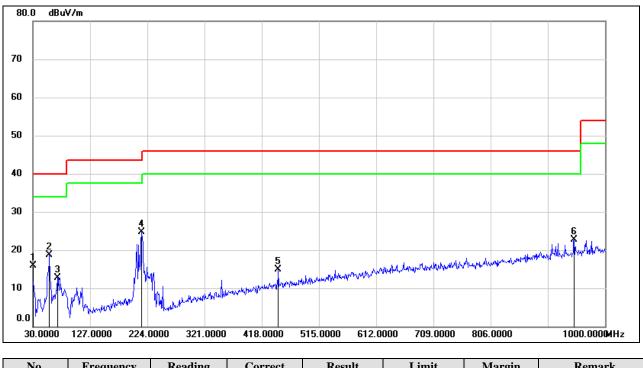
### TEST MODE

Radiated Emissions - Below 1 GHz		Radiated Emissions - Above 1 GHz	
Pre-test Mode: Mode 1 & 2		Pre-test Mode: Mode 1 & 2	
Final Test Mode:	Mode 1 & 2	Final Test Mode:	Mode 1

Note: All test modes have been tested, but only the worst case data recorded in the report.

### **TEST RESULTS**

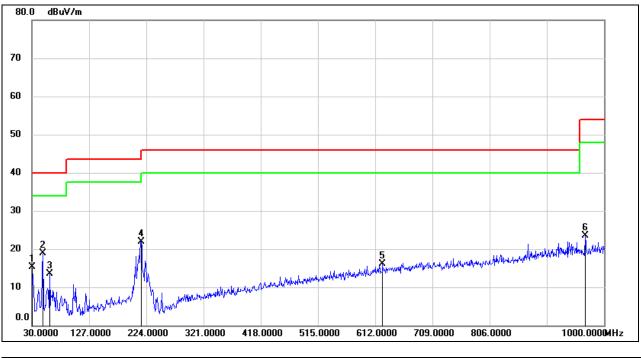
Radiated Emissions – Below 1 GHz						
Measurement Method Radiated Polar: Horizontal						
Test Mode: Mode 1 Test Voltage: AC 120 V/60 Hz						



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	30.0000	34.89	-18.94	15.95	40.00	-24.05	QP
2	58.1300	39.29	-20.55	18.74	40.00	-21.26	QP
3	71.7100	33.44	-20.70	12.74	40.00	-27.26	QP
4	214.3000	42.33	-17.66	24.67	43.50	-18.83	QP
5	446.1300	27.40	-12.52	14.88	46.00	-31.12	QP
6	947.6200	27.19	-4.43	22.76	46.00	-23.24	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit

Radiated Emissions – Below 1 GHz							
Measurement Method Radiated Polar: Vertical							
Test Mode:         Mode 1         Test Voltage:         AC 120 V/60 Hz							

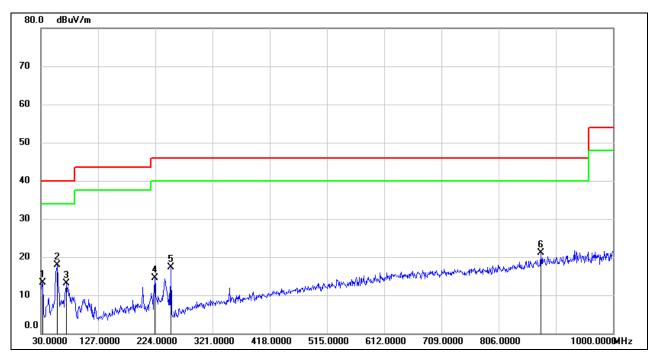


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	30.0000	34.16	-18.94	15.22	40.00	-24.78	QP
2	48.4300	39.44	-20.63	18.81	40.00	-21.19	QP
3	60.0700	34.05	-20.49	13.56	40.00	-26.44	QP
4	215.2700	39.69	-17.76	21.93	43.50	-21.57	QP
5	624.6100	25.35	-9.31	16.04	46.00	-29.96	QP
6	967.9900	27.94	-4.43	23.51	54.00	-30.49	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit



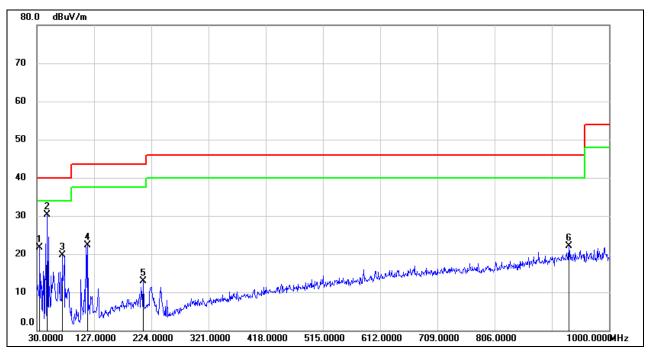
Radiated Emissions – Below 1 GHz						
Measurement Method Radiated Polar: Horizontal						
Test Mode: Mode 2 Test Voltage: AC 120 V/60 Hz						



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	32.9100	32.56	-19.22	13.34	40.00	-26.66	QP
2	58.1300	38.54	-20.55	17.99	40.00	-22.01	QP
3	73.6500	33.87	-20.84	13.03	40.00	-26.97	QP
4	223.0300	32.88	-18.32	14.56	46.00	-31.44	QP
5	250.1900	36.15	-18.91	17.24	46.00	-28.76	QP
6	877.7800	26.76	-5.58	21.18	46.00	-24.82	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit

Radiated Emissions – Below 1 GHz						
Measurement Method Radiated Polar: Vertical						
Test Mode:	Mode 2	Test Voltage:	AC 120 V/60 Hz			

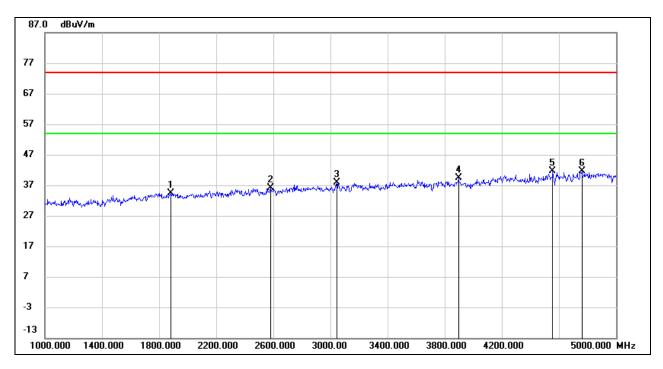


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	30.0000	34.16	-18.94	15.22	40.00	-24.78	QP
2	48.4300	39.44	-20.63	18.81	40.00	-21.19	QP
3	60.0700	34.05	-20.49	13.56	40.00	-26.44	QP
4	215.2700	39.69	-17.76	21.93	43.50	-21.57	QP
5	624.6100	25.35	-9.31	16.04	46.00	-29.96	QP
6	967.9900	27.94	-4.43	23.51	54.00	-30.49	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit



Radiated Emissions – Above 1 GHz					
Measurement Method Radiated Polar: Horizontal					
Test Mode:	Mode 1	Test Voltage:	AC 120 V/60 Hz		



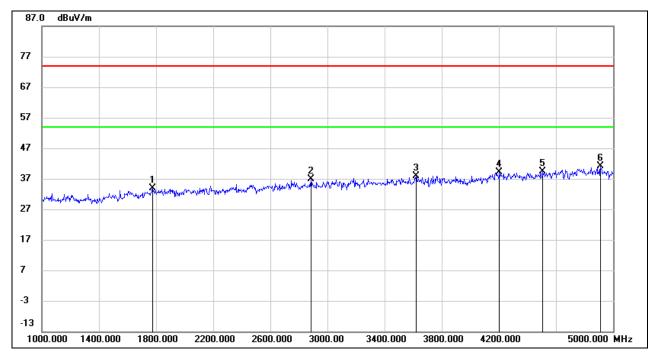
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	34.8500	41.06	-19.40	21.66	40.00	-18.34	QP
2	47.4600	50.89	-20.55	30.34	40.00	-9.66	QP
3	72.6800	40.40	-20.76	19.64	40.00	-20.36	QP
4	116.3300	42.37	-20.08	22.29	43.50	-21.21	QP
5	210.4200	30.15	-17.32	12.83	43.50	-30.67	QP
6	932.1000	26.85	-4.72	22.13	46.00	-23.87	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit

3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

4. Peak: Peak detector.

Radiated Emissions – Above 1 GHz						
Measurement Method Radiated Polar: Vertical						
Test Mode:	Mode 1	Test Voltage:	AC 120 V/60 Hz			



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	( <b>dB</b> / <b>m</b> )	(dBuV/m)	(dBuV/m)	( <b>dB</b> )	
1	1776.000	44.15	-10.22	33.93	74.00	-40.07	peak
2	2884.000	43.07	-6.15	36.92	74.00	-37.08	peak
3	3620.000	41.97	-4.09	37.88	74.00	-36.12	peak
4	4204.000	40.91	-1.67	39.24	74.00	-34.76	peak
5	4508.000	40.45	-1.18	39.27	74.00	-34.73	peak
6	4912.000	40.24	0.77	41.01	74.00	-32.99	peak

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor) 2. Margin = Result - Limit

3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

4. Peak: Peak detector.

# **END OF REPORT**