FCC EMI TEST REPORT

Filing Type	:	**Certification**
FCC ID	:	**2AF82-TD0350H**
Equipment	:	**Panel PC**
Brand Name	:	**Qbic**
Model Name	:	**TD-035XXX, (where X can be 0-9, A-Z or blank)**
Applicant	:	**Qbic technology Co., Ltd 26F. -12, No.99, Sec.1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan(R.O.C)**
Manufacturer	:	**Qbic technology Co., Ltd 26F. -12, No.99, Sec.1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan(R.O.C)**
Standard	:	**47 CFR FCC Rules and Regulations Part 15 Subpart B, Class B Digital Device**

The product was received on Jun. 22, 2018, and testing was started from Jul. 24, 2018 and completed on Jul. 24, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2014 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: William Li

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Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FC843031	01	Initial issue of report	Jul. 27, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
4	15.107	Conducted Emissions of Powerline	PASS	Under limit 10.75 dB at 518.14 kHz
5.1	15.109	Radiated Emissions below 1GHz	PASS	Under limit 3.56 dB at 480.08 MHz
5.2	15.109	Radiated Emissions above 1GHz	PASS	Under limit 25.1 dB at 5.74 GHz

Reviewed by: Teddy Chang

Report Producer: Maggie Li

1. General Description of Equipment under Test

1.1. Basic Description of Equipment under Test

Equipment : Panel PC
Model No. : TD-035XXX, (where X can be 0-9, A-Z or blank)
Power Supply Type : From Power Adapter
AC Power Cord : Wall-Mount, 2 pin
DC Power Cable : D-Shielded, 3 m
The maximum operating frequency : 2.4 GHz

1.2. Feature of Equipment under Test

Accessories

Item	Brand	Model	Spec. Description
Adapter 1	SOY	SOY-0500200-090	Input: 100-240V, 50-60Hz, 0.5A Max Output: 5V, 2A
Adapter 2	PHIHONE	PSAF10R-050Q	Input: 100-240V, 50-60Hz, 0.3A Output: 5V, 2A
USB Cable	-	389G175GZAAFAMOOHF	3 meter, D-shielded cable, without ferrite core

For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

1.3. Modification of EUT

No modifications to the EUT were made.

2. Test Configuration of Equipment under Test

2.1. Test Manner

The equipment under test were performed the following test modes:

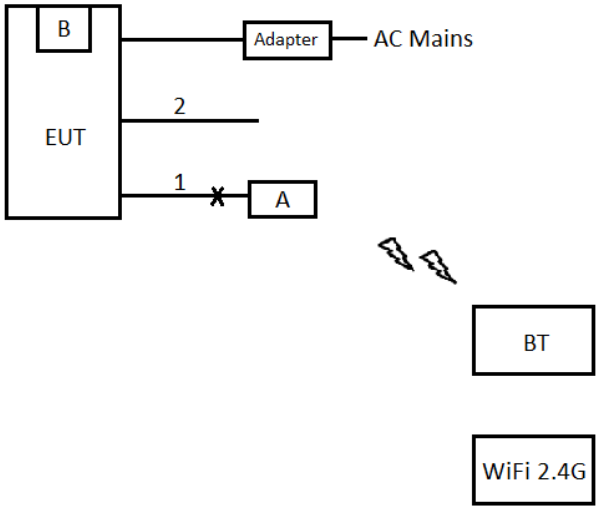
Test Items	Description of test modes
Conducted Emission	Mode 1. Wi-Fi 2.4G, BT, NFC ON, H pattern, Play music from USB Flash, Adapter 1 (Model name: SOY-0500200-090) Mode 2. Wi-Fi 2.4G, BT, 125k ON, H pattern, Play music from USB Flash, Adapter 1 (Model name: SOY-0500200-090) Mode 3. Wi-Fi 2.4G, BT, NFC ON, H pattern, Play music from USB Flash, Adapter 2 (Model name: PSAF10R-050Q) cause “mode 1” generated the worst test result; it was reported as final data.
Radiated Emissions <below 1GHz>	Mode 1. Wi-Fi 2.4G, BT, NFC ON, H pattern, Play music from USB Flash, Adapter 1 (Model name: SOY-0500200-090) Mode 2. Wi-Fi 2.4G, BT, 125k ON, H pattern, Play music from USB Flash, Adapter 1 (Model name: SOY-0500200-090) Mode 3. Wi-Fi 2.4G, BT, NFC ON, H pattern, Play music from USB Flash, Adapter 2 (Model name: PSAF10R-050Q) cause “mode 1” generated the worst test result; it was reported as final data.
Radiated Emissions <above 1GHz>	Mode 1. Wi-Fi 2.4G, BT, NFC ON, H pattern, Play music from USB Flash, Adapter 1 (Model name: SOY-0500200-090)

2.2. Description of Test System

No.	Peripheral	Manufacturer	Model Number	FCC ID	Remarks
For Local					
A	USB3.0 Flash Disk	PQI	U821V	DoC	-
B	NFC Card (A TYPE)	-	-	-	client provided
C	Fixture	-	-	-	-
For Remote					
Z	Notebook	DELL	E5540	DoC	-
Z	AP	ASUS	RT-AC66U	MSQ-RTAC66U	-

2.3. Connection Diagram of Test System

Test Setup Diagram



No.	Types of Cables	Shielding on Cable	Length (m)	Remarks
1	USB Cable	D-Shielded	3	-
2	USB Cable	D-Shielded	1.5	Floating, for Engineer setup use.

2.4. Test Software

During the test, the program under Android 5.1.1 (Local) and Win 7(Remote) was executed:

- The EUT open "ScreenTest" to display continuously repeating " H " patterns.
- The EUT open the WiFi to link with the remote AP to keep connection.
- The EUT open the Bluetooth to link with the remote NB to keep connection.
- The EUT open "Music" to play audio.
- The EUT keep connection with NFC card.
- The USB cable is floating for engineering setting.

3. General Information of Test

3.1. Test Facilities

Test Site：SPORTON INTERNATIONAL INC.		
☒	HUA YA	ADD: No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: 886-3-327-3456 FAX: 886-3-318-0055 FCC Designation Number: TW1093
☐	DONG HU	ADD: No. 3, Ln. 238, Kangle St., Neihu Dist., Taipei City, Taiwan (R.O.C.) TEL: 886-2-2631-5551 FAX: 886-2-2631-9740 FCC Designation Number: TW1094
☐	LIN KOU	ADD: No. 30-2, Dingfu Vil., Linkou Dist., New Taipei City, Taiwan (R.O.C.) TEL: 886-2-2601-1640 FAX: 886-2-2601-1695 FCC Designation Number: TW1095

Test Items	Test Site No.	Test Engineer	Test Environment		Test Date	Remark
			temp °C	hum %		
Conducted Emissions of Powerline	CO01-HY	Bear	24	59	24/Jul/2018	-
Radiated Emissions below 1GHz	03CH01-HY	Yen-Liang	25	56	24/Jul/2018	-
Radiated Emissions above 1GHz	03CH01-HY	Yen-Liang	25	56	24/Jul/2018	-

3.2. Test Standards

Test items	Test Standards and Test Procedures
Radiated and Conducted Emissions	ANSI C63.4:2014 with FCC Method 47 CFR Part 15, Subpart B, Class B Digital Device

3.3. Test Voltage/Frequencies

Power Supply Type	Voltage/Frequencies
AC Power Supply	120V / 60Hz

3.4. Test Distance and Frequency Range Investigated

Test Items	Frequency Range	Remark
Powerline Conducted Emissions	150 kHz to 30 MHz	-
Radiated Emissions (below 1GHz)	30 MHz to 1,000 MHz	Measurement distance is 3 m.
Radiated Emissions (above 1GHz)	1,000 MHz to 13,000 MHz	Measurement distance is 3 m.

3.5. Operating Condition

- Full system.

3.6. Labelling requirements

3.6.1. FCC Labelling requirements

The devices shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3.7. User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

4. Conducted Emissions Measurement

Conducted Emissions were measured according to the methods defined in ANSI C63.4-2014 Section 7.
The EUT is which satisfies the Class B disturbance limits.

4.1. Limit

Limits for conducted disturbance at the mains ports of class B			
Frequency range MHz	**Coupling device**	**Detector type / bandwidth**	**Class B limits** dB(μV)
0,15 – 0,5	AMN	Quasi-peak / 9 kHz	66 - 56
0,5 – 5			56
5 – 30			60
0,15 – 0,5	AMN	Average / 9 kHz	56 - 46
0,5 – 5			46
5 – 30			50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.			

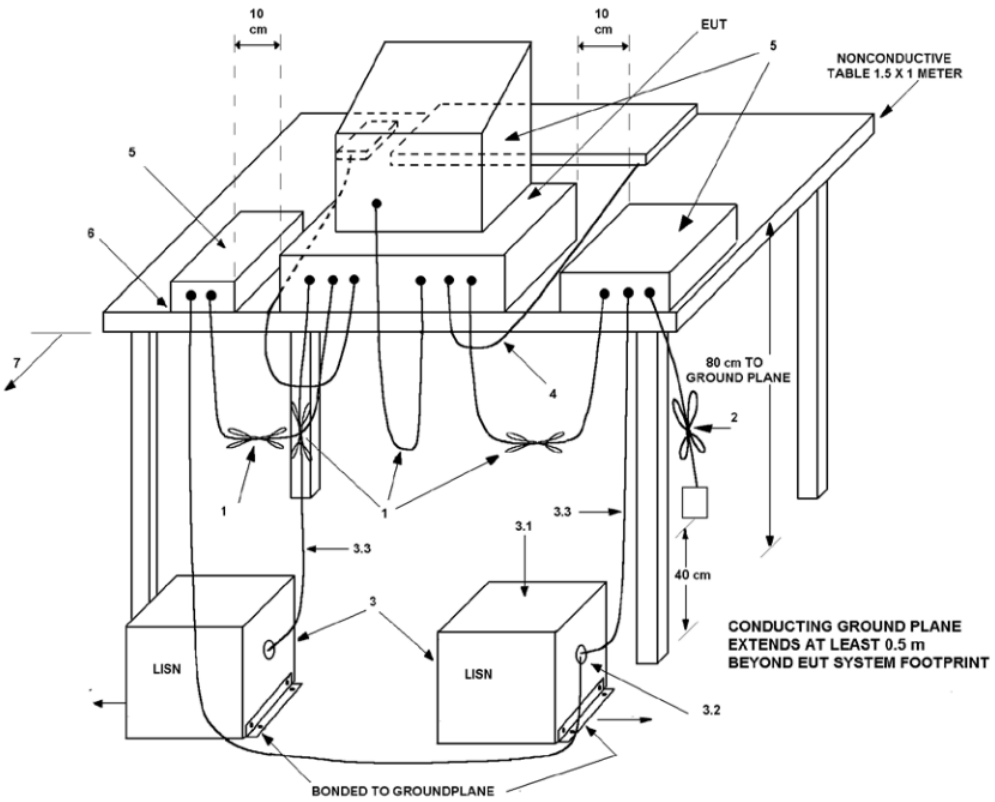
4.2. Test Procedures

a). The EUT was warmed up for 15 minutes before testing started.
b). The EUT was placed on a desk 0.8 meter height from the metal ground plane and 0.4 meter from the conducting wall of the shielding room and it was kept at least 0.8 meter from any other grounded conducting surface.
c). Connect EUT to the power mains through a line impedance stabilization network (LISN).
d). All the support units are connect to the other LISN.
e). The LISN provides 50 ohm, coupling impedance for the measuring instrument.
f). The FCC states that a 50 ohm, 50 microhenry LISN should be used.
g). Both sides of AC line were checked for maximum conducted interference.
h). The frequency range from 150 kHz to 30 MHz was searched.
i). Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
j). All emissions not reported here are more than 10 dB below the prescribed limit.

4.3. Measurement Results Calculation

The measurand Level is calculated using:
Corrected Reading (dBμV) = Raw(Read Level) + LISN + CL(Cable Loss) + AT(Attenuator)
For example at 0.3 MHz if the LISN Factor is 10.48 dB, the cable loss is 0.10 dB, the measured voltage is 36.39 dBμV, attenuation 10dB, the signal strength would be calculated:
Corrected Reading (dBμV) = 36.39 dBμV+10.48 dB + 0.10 dB + 10 dB = 56.97 dBμV

4.4. Typical Test Setup Layout

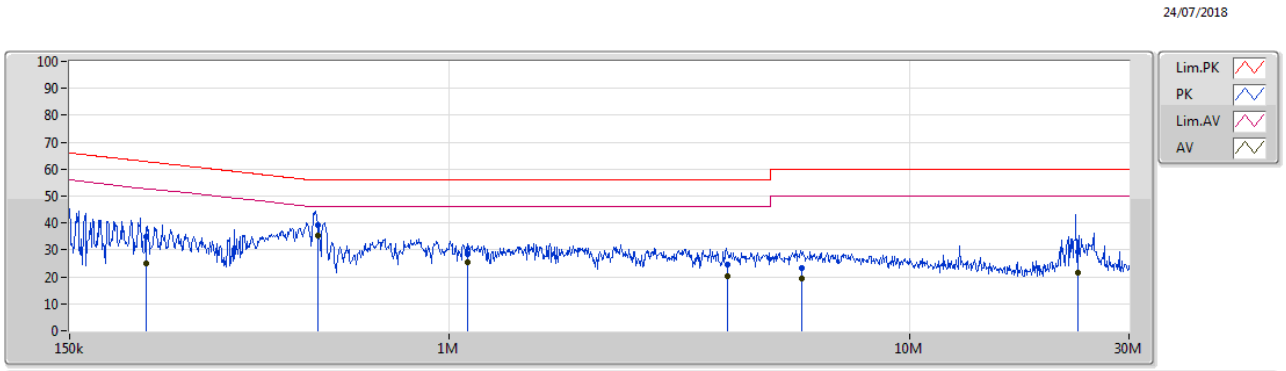


1. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2. Input/output (I/O) cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3. EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated into 50 Ω loads. LISN can be placed on top of, or immediately beneath, reference ground plane.
   - 3.1 All other equipment powered from additional LISN(s).
   - 3.2 Multiple outlet strips can be used for multiple power cords of non-EUT equipment.
   - 3.3 LISN at least 80 cm from nearest part of EUT chassis.
4. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal use.
5. Non-EUT components of EUT system being tested.
6. Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.
7. Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

4.5. Test Result

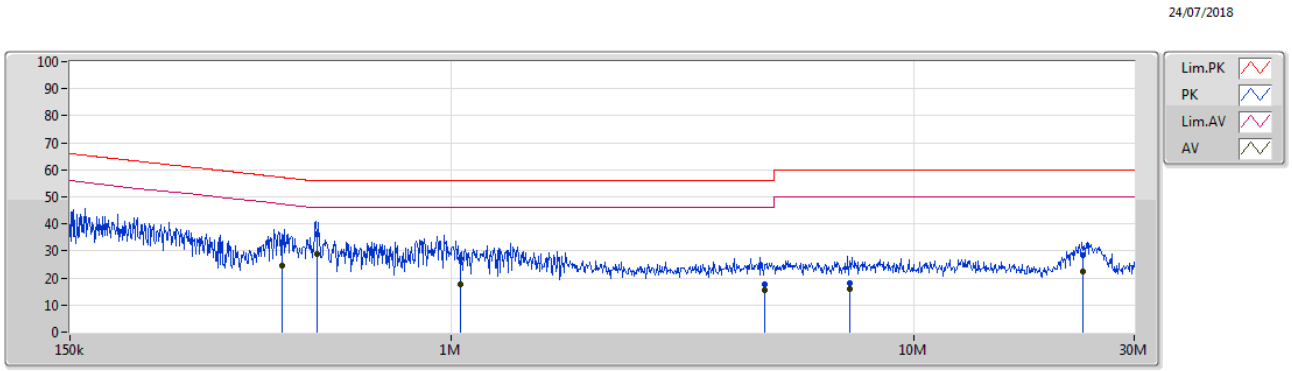
Test Mode	Mode 1		
Test Frequency	0.15 MHz ~ 30 MHz	Test Voltage	AC 120V / 60Hz
■ The test was passed at the minimum margin that marked by the frame in the following data			

Line



Type	Freq	Level	Limit	Margin	Factor	Condition	Comments	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	219.579k	34.88	62.83	-27.95	19.57	Line	-	15.31	9.61	0.10	9.86
AV	219.579k	25.05	52.83	-27.78	19.57	Line	-	5.48	9.61	0.10	9.86
QP	518.14k	39.20	56.00	-16.80	19.58	Line	-	19.62	9.61	0.11	9.86
AV	518.14k	35.25	46.00	-10.75	19.58	Line	"Worst"	15.67	9.61	0.11	9.86
QP	1.0973M	28.32	56.00	-27.68	19.57	Line	-	8.75	9.61	0.10	9.86
AV	1.0973M	25.61	46.00	-20.39	19.57	Line	-	6.04	9.61	0.10	9.86
QP	4.03109M	24.39	56.00	-31.61	19.66	Line	-	4.73	9.63	0.15	9.88
AV	4.03109M	20.36	46.00	-25.64	19.66	Line	-	0.70	9.63	0.15	9.88
QP	5.82895M	23.37	60.00	-36.63	19.69	Line	-	3.68	9.64	0.16	9.89
AV	5.82895M	19.36	50.00	-30.64	19.69	Line	-	-0.33	9.64	0.16	9.89
QP	23.23409M	29.46	60.00	-30.54	19.79	Line	-	9.67	9.60	0.22	9.97
AV	23.23409M	21.64	50.00	-28.36	19.79	Line	-	1.85	9.60	0.22	9.97

Neutral



Type	Freq	Level	Limit	Margin	Factor	Condition	Comments	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	431.314k	33.04	57.22	-24.18	19.61	Neutral	-	13.43	9.64	0.11	9.86
AV	431.314k	24.76	47.22	-22.46	19.61	Neutral	-	5.15	9.64	0.11	9.86
QP	512.606k	36.42	56.00	-19.58	19.61	Neutral	-	16.81	9.64	0.11	9.86
AV	512.606k	29.00	46.00	-17.00	19.61	Neutral	"Worst"	9.39	9.64	0.11	9.86
QP	1.0504M	27.09	56.00	-28.91	19.60	Neutral	-	7.49	9.64	0.10	9.86
AV	1.0504M	17.56	46.00	-28.44	19.60	Neutral	-	-2.04	9.64	0.10	9.86
QP	4.76485M	17.57	56.00	-38.43	19.71	Neutral	-	-2.14	9.67	0.16	9.88
AV	4.76485M	15.35	46.00	-30.65	19.71	Neutral	-	-4.36	9.67	0.16	9.88
QP	7.27353M	17.96	60.00	-42.04	19.75	Neutral	-	-1.79	9.69	0.17	9.89
AV	7.27353M	15.77	50.00	-34.23	19.75	Neutral	-	-3.98	9.69	0.17	9.89
QP	23.29921M	28.50	60.00	-31.50	19.89	Neutral	-	8.61	9.70	0.22	9.97
AV	23.29921M	22.36	50.00	-27.64	19.89	Neutral	-	2.47	9.70	0.22	9.97

5. Radiated Emissions Measurement

Radiated Emissions were measured according to the methods defined in ANSI C63.4-2014 Section 8.
The EUT is which satisfies the Class B disturbance limits.

5.1. Radiated Emission below 1GHz

5.1.1. Limit

radiated emissions at frequencies up to 1 GHz for Class B equipment				
Frequency range MHz	**Measurement**		**Class B limits**	
	Distance (m)	**Detector type / bandwidth**	**μV/m**	**dB(μV/m)**
30 – 88	3	Quasi Peak / 120 kHz	100	40
88 – 216			150	43.5
216 – 960			200	46
Above 960			500	54
Note: dB(μV/m) = 20 log μV/m				

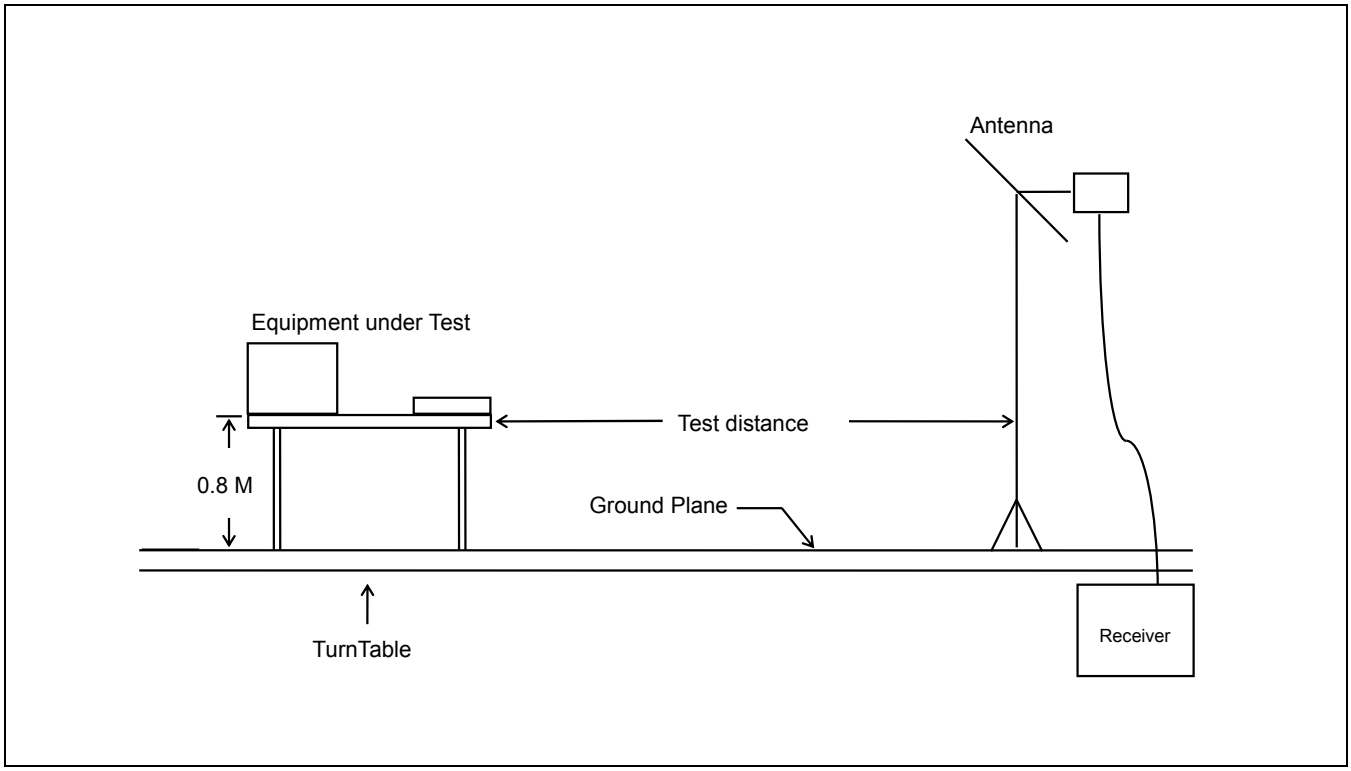
5.1.2. Test Procedures

a). The EUT was placed on a rotatable table top 0.8 meter above ground.
b). The EUT was set 3 meters from the interference-receiving antenna which was mounted on the top of a variable height antenna tower.
c). The table was rotated 360 degrees to determine the position of the highest radiation.
d). The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e). For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f). Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
g). If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

5.1.3. Measurement Results Calculation

The measurand Level is calculated using:
Corrected Reading (dBμV/m) = Raw(Read Level)+AF(Antenna Factor)+CL(Cable Loss)–PA(Preamp Factor)
For example at 125 MHz if the Antenna Factor is 17.24 dB/m, the cable loss is 1.20 dB, the measured voltage is 35.80 dBμV and the Preamp Factor is 27.18 dB, the signal strength would be calculated:
Corrected Reading (dBμV/m) = 35.80 dBμV + 17.24 dB/m + 1.20 dB - 27.18 dB = 27.06 dBμV/m
Note: If a hybrid antenna is used, the antenna factor shell be the sum of the Antenna Factor + Attenuator Factor.

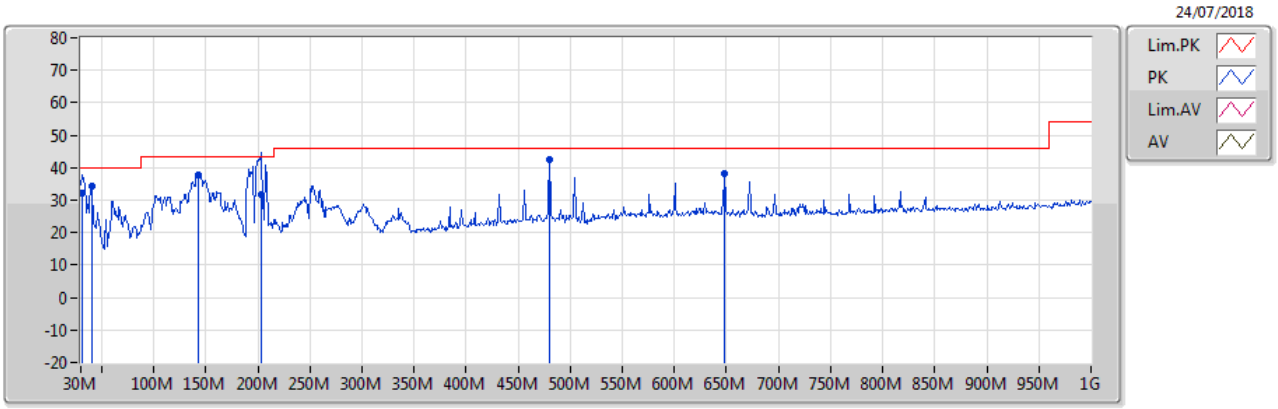
5.1.4. Typical Test Setup Layout



5.1.5. Test Result

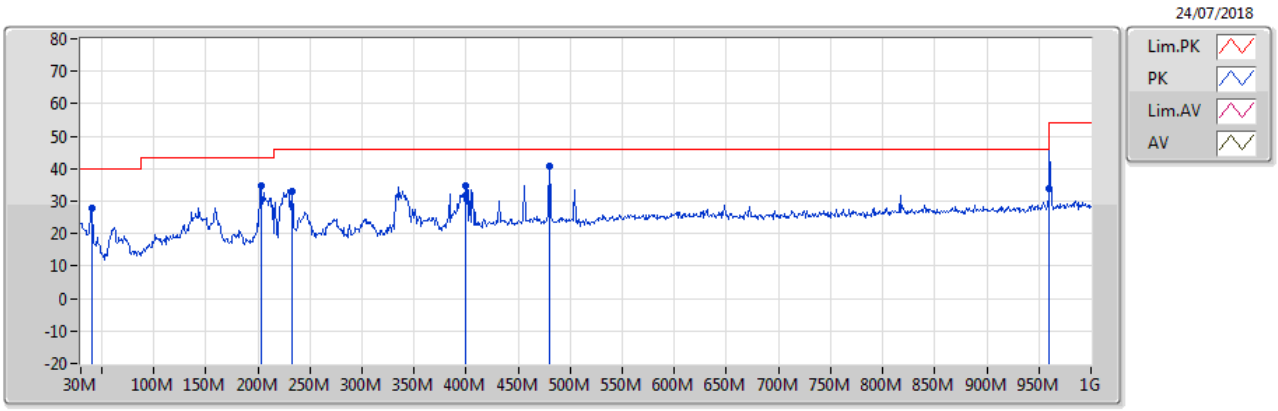
Test mode	Mode 1		
Test frequency	30 MHz ~ 1000 MHz	Test Voltage	AC 120V / 60Hz
■ The test was passed at the minimum margin that marked by the frame in the following data			

Vertical



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	40.67M	34.33	40.00	-5.67	-8.65	3	Vertical	-	-	-	42.98	18.00	0.84	27.49
PK	142.52M	37.77	43.50	-5.73	-9.65	3	Vertical	-	-	-	47.42	16.13	1.47	27.25
PK	480.08M	42.44	46.00	-3.56	-2.82	3	Vertical	187	1	"Worst"	45.26	22.49	2.78	28.09
PK	647.89M	38.28	46.00	-7.72	-0.76	3	Vertical	-	-	-	39.04	24.04	3.58	28.38
QP	31.94M	32.27	40.00	-7.73	-3.92	3	Vertical	359	1	-	36.19	22.63	0.94	27.49
QP	203.63M	31.81	43.50	-11.69	-10.90	3	Vertical	3	1	-	42.71	14.34	1.78	27.02

Horizontal



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	40.67M	27.80	40.00	-12.20	-8.65	3	Horizontal	-	-	-	36.45	18.00	0.84	27.49
PK	202.66M	34.79	43.50	-8.71	-10.89	3	Horizontal	-	-	-	45.68	14.35	1.78	27.02
PK	232.73M	33.18	46.00	-12.82	-9.47	3	Horizontal	-	-	-	42.65	15.64	1.86	26.97
PK	399.57M	34.55	46.00	-11.45	-4.11	3	Horizontal	-	-	-	38.66	20.90	2.61	27.62
PK	480.08M	40.59	46.00	-5.41	-2.82	3	Horizontal	178	1	"Worst"	43.41	22.49	2.78	28.09
QP	959.99904M	33.94	46.00	-12.06	2.40	3	Horizontal	193	1	-	31.54	26.10	3.93	27.63

5.2. Radiated Emission above 1GHz

5.2.1. Limit

radiated emissions at frequencies above 1 GHz for Class B equipment			
Frequency range GHz	**Measurement**		**Class B limits**
	Distance (m)	**Detector type / RBW / VBW**	**dB(μV/m)**
1 – 13	3	Average / 1MHz / 1Hz	54
1 – 13		Peak / 1MHz / 3MHz	74

Required highest frequency for radiated measurement	
Highest internal frequency (F_x)	**Highest measured frequency**
$F_x \leq 108$ MHz	1 GHz
108 MHz < $F_x \leq 500$ MHz	2 GHz
500 MHz < $F_x \leq 1$ GHz	5 GHz
$F_x > 1$ GHz	5 x F_x up to a maximum of 40 GHz

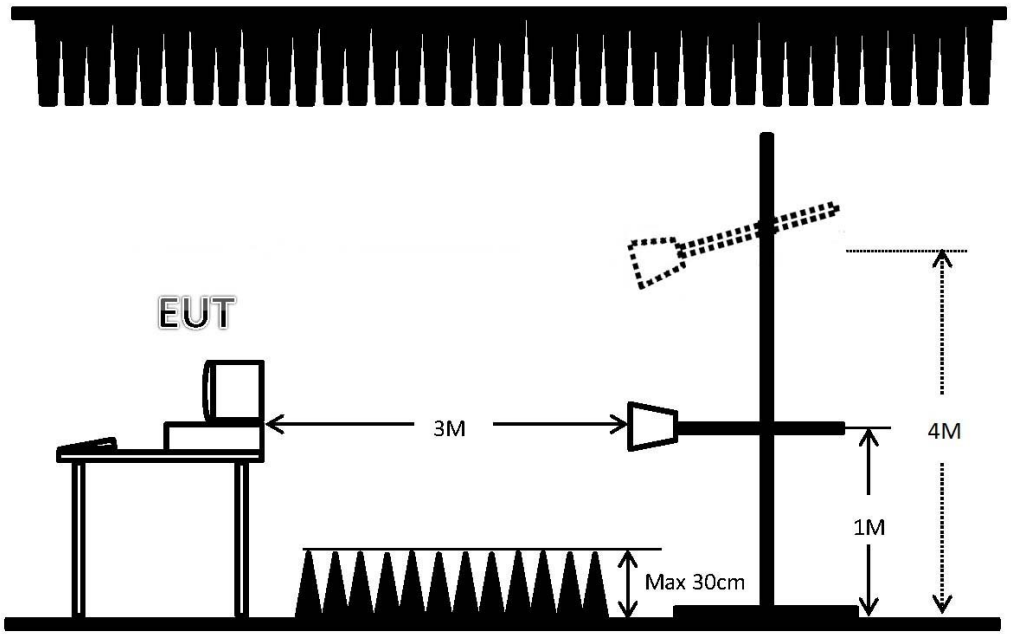
5.2.2. Test Procedures

a). Same test set up as below 1GHz radiated testing.
b). The EUT was set 3m (1 – 13GHz) from the interference-receiving antenna which was mounted on the top of a variable height antenna tower.
c). There should be absorber placed between the EUT and Antenna and its located size should let the test site meet CISPR16-1-4 requirement.
d). The table was rotated 360 degrees to determine the position of the highest radiation.
e). The measured using a test-receiver system with both a peak and CISPR average detector.
f). If the EUT is having a Wireless or Bluetooth modular, install the filter at the input connector of test-receiver system.
g). Set the DRG Horn Antenna at 1M height, then run the turn table to get the maximum noise reading from Horizontal and Vertical polarity separately.t the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
h). When EUT locating on the turn-table, and its height is over 172cm (Antenna's 3dB beam width of 6GHz is 27∘), the DRG Horn Antenna must be raised up and descended down, then turning around the turn-table to get the maximum noise reading of the Horizontal and Vertical polarity separately. Note the maximum raise up height is same as the top of EUT.
i). If emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.2.3. Measurement Results Calculation

The measurand Level is calculated using:
Corrected Reading (dBμV/m) = Raw(Read Level)+AF(Antenna Factor)+CL(Cable Loss)-PA(Preamp Factor)
For example at 1980 MHz if the Antenna Factor is 26.19 dB/m, the cable loss is 4.08 dB, the measured voltage is 51.30 dBμV and the Preamp Factor is 33.34 dB, the signal strength would be calculated:
Corrected Reading (dBμV/m) = 51.30 dBμV + 26.19 dB/m + 4.08 dB + - 33.34 dB = 48.23 dBμV/m

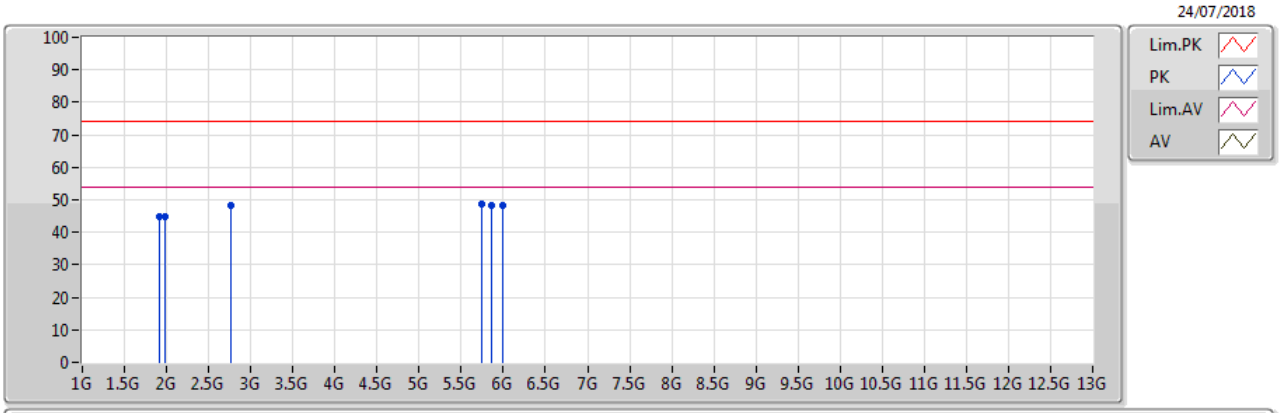
5.2.4. Typical Test Setup Layout



5.2.5. Test Result

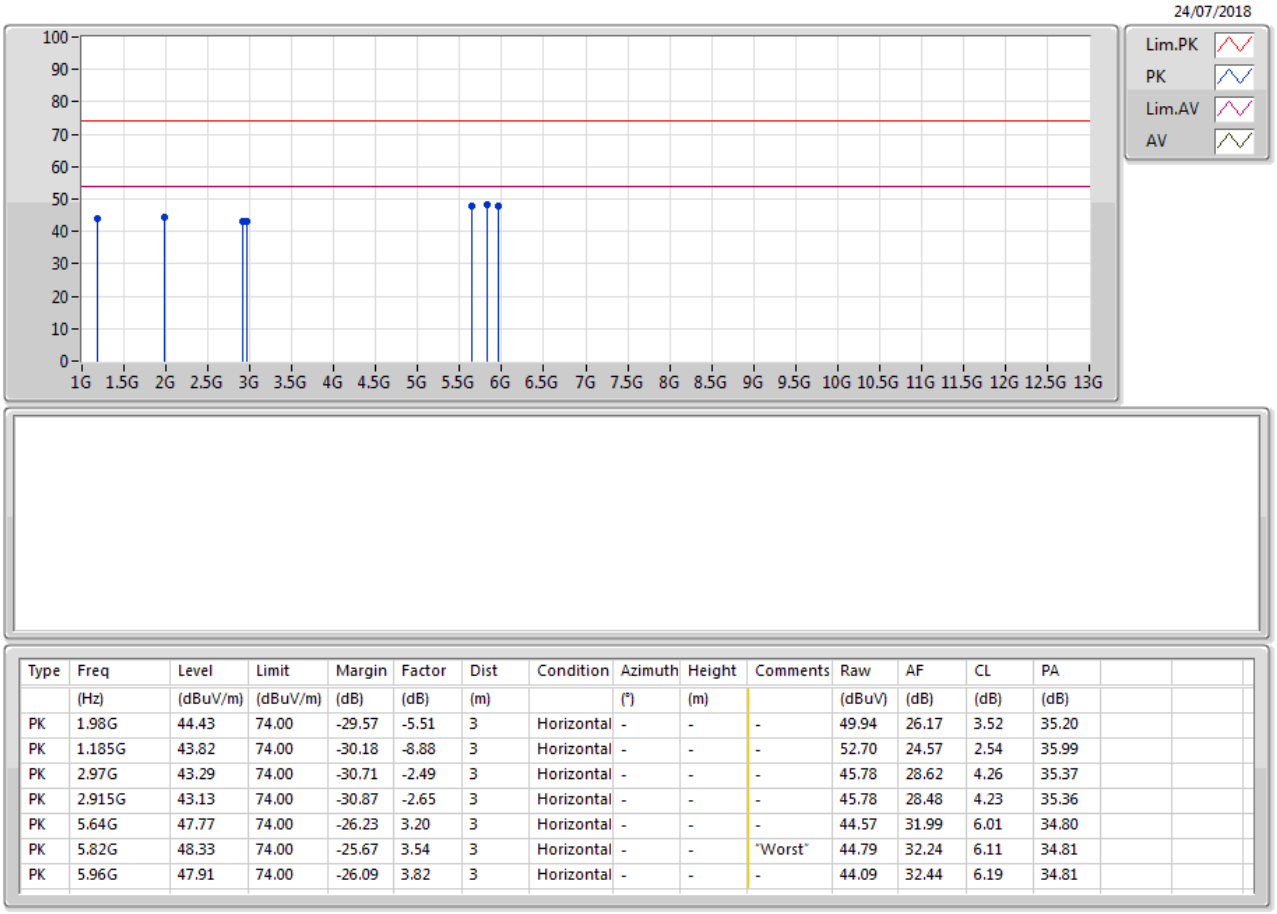
Test mode	Mode 1		
Test frequency	Above 1GHz	Test Voltage	AC 120V / 60Hz
■ The test was passed at the minimum margin that marked by the frame in the following data			

Vertical



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	1.92G	44.66	74.00	-29.34	-5.69	3	Vertical	-	-	-	50.35	26.09	3.46	35.24
PK	1.98G	44.78	74.00	-29.22	-5.51	3	Vertical	-	-	-	50.29	26.17	3.52	35.20
PK	2.77G	48.28	74.00	-25.72	-3.10	3	Vertical	-	-	-	51.38	28.10	4.13	35.33
PK	5.74G	48.90	74.00	-25.10	3.39	3	Vertical	187	1	"Worst"	45.51	32.13	6.06	34.80
PK	5.855G	48.13	74.00	-25.87	3.61	3	Vertical	-	-	-	44.52	32.29	6.13	34.81
PK	6G	48.12	74.00	-25.88	3.90	3	Vertical	-	-	-	44.22	32.50	6.21	34.81

Horizontal



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	1.98G	44.43	74.00	-29.57	-5.51	3	Horizontal	-	-	-	49.94	26.17	3.52	35.20
PK	1.185G	43.82	74.00	-30.18	-8.88	3	Horizontal	-	-	-	52.70	24.57	2.54	35.99
PK	2.97G	43.29	74.00	-30.71	-2.49	3	Horizontal	-	-	-	45.78	28.62	4.26	35.37
PK	2.915G	43.13	74.00	-30.87	-2.65	3	Horizontal	-	-	-	45.78	28.48	4.23	35.36
PK	5.64G	47.77	74.00	-26.23	3.20	3	Horizontal	-	-	-	44.57	31.99	6.01	34.80
PK	5.82G	48.33	74.00	-25.67	3.54	3	Horizontal	-	-	"Worst"	44.79	32.24	6.11	34.81
PK	5.96G	47.91	74.00	-26.09	3.82	3	Horizontal	-	-	-	44.09	32.44	6.19	34.81

6. Uncertainty of Test Site

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

6.1. Emission Test Measurement Uncertainty

Test Items	Test Site No.	U_{LAB}
Conducted Emissions	CO01-HY	3.4 dB
Radiated Emissions below 1GHz	03CH01-HY	4.3 dB
Radiated Emissions above 1GHz	03CH01-HY	4.9 dB

7. List of Measuring Equipment Used

Conducted Emission - Test Date: 24/Jul/2018

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	Conduction (CO01-HY)
Two-Line V Network(LISN)	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	Conduction (CO01-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	7611832010001	9kHz ~ 30MHz	02/Mar/2018	Conduction (CO01-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	12/Oct/2017	Conduction (CO01-HY)
Software	Sporton	SENSE-EMI	V5.9	-	NCR	Radiation (CO01-HY)

Note: Calibration Interval of instruments listed above is one year. NCR: No Calibration Request.

Radiated Emission below 1GHz - Test Date: 24/Jul/2018

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
N.S.A. Measurement	Riken	SAC-3M	03CH01-HY	30 MHz ~ 1 GHz 3m	12/Jan/2018	Radiation (03CH01-HY)
EMI Test Receiver	R&S	ESU-26	100422	20Hz ~ 26.5GHz	31/Oct/2017	Radiation (03CH01-HY)
PreAmplifier	HP	8447D	2944A08290	0.1 MHz ~ 1.3 GHz	30/Aug/2017	Radiation (03CH01-HY)
Bilog Antenna with 5dB Attenuator	SCHAFFNER& MTJ	CBL6112D & MTJ6102-05	2678 / 001	30 MHz ~ 2 GHz	07/Jul/2018	Radiation (03CH01-HY)
Turn Table	HD	DS 420	420/648/00	0 - 360 degree	NCR	Radiation (03CH01-HY)
Antenna Mast	Sunol Sciences	TLT2	011911-01	1 m - 4 m	NCR	Radiation (03CH01-HY)
RF Cable-R03m	Jye Bao	RG142	CB019	9KHz ~ 1 GHz	15/Dec/2017	Radiation (03CH01-HY)
Software	Sporton	SENSE-EMI	V5.9	-	NCR	Radiation (03CH01-HY)

Note: Calibration Interval of instruments listed above is one year. NCR: No Calibration Request.

Radiated Emission above 1GHz - Test Date: 24/Jul/2018

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESU-26	100422	20Hz ~ 26.5GHz	31/Oct/2017	Radiation (03CH01-HY)
Microwave Preamplifier	Agilent	8449B	3008A02602	1GHz ~ 26.5GHz	29/Mar/2018	Radiation (03CH01-HY)
Horn Antenna	SCHWARZBECK	BBHA9120	BBHA9120D01834	1 GHz ~ 18 GHz	22/Jan/2018	Radiation (03CH01-HY)
Turn Table	HD	DS 420	420/648/00	0 ~ 360 degree	NCR	Radiation (03CH01-HY)
Antenna Mast	Sunol Sciences	TLT2	011911-01	1 m ~ 4 m	NCR	Radiation (03CH01-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	33135/2	1 GHz ~ 18 GHz	09/Dec/2017	Radiation (03CH01-HY)
Software	Sporton	SENSE-EMI	V5.9	-	NCR	Radiation (03CH01-HY)

Note: Calibration Interval of instruments listed above is one year. NCR: No Calibration Request.