EMC Test Report

Applicant: JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO LTD

Address: YunYang Industrial Park, DanYang, Jiangsu Province, P.R. China

Product: Infrared Thermometer

Model No.: YT-1,YT-1A,YT-1B,YT-1C

Brand Name: yuwell

Standards: IEC 60601-1-2: 2014
EN 60601-1-2:2015

Result: Complies

Date of Receipt : Jul.3, 2019
Test Date : Jul.7, 2019 ~ Jul.10, 2019
Issued Date : 2019-09-29
Report No. : 4789040125-E
Prepared By : UL-CCIC Company Limited
Guangzhou branch office
Electronic Building, parage
Electronic Industrial Park,
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Guangzhou Science Park,
Guangzhou

Test Report Certification

Issued Date : 2019-09-29
Report No. : 4789040125-E

Product Name	:	Infrared Thermometer
Applicant	:	JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO LTD
Address	:	YunYang Industrial Park, DanYang, Jiangsu Province, P.R. China
Manufacturer	:	JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO LTD
Address	:	YunYang Industrial Park, DanYang, Jiangsu Province, P.R. China
Model No.	:	YT-1,YT-1A,YT-1B,YT-1C
EUT Ratings	:	DC 3V (2 x 1.5V AAA battery)
Test Voltage	:	DC 3V(2 x 1.5V AAA battery)
Trade Name	:	yuwell
Applicable Standard	:	IEC 60601-1-2:2014, EN 60601-1-2:2015
Test Result	:	Complied
Performed Location	:	Building 2, Block B, Dongfang Industrial Park, No.20 Huayun Road, Loufeng, Suzhou Industrial Park

Date of Test : Jul.7, 2019 ~ Jul.10, 2019

Prepared By: Jelly Li

Name / Title Jelly Li / Project Engineer Associate

Approved Signatory: Cary Hu

Name / Title Cary Hu / Project Engineer

Revision History

Report No.	Version	Description	Issue Date	Note
4789040125-E	Rev. 00	Original Report	2019-09-29	/

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Description Page

1. General Information

1.1. Applicant

JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO LTD

1.2. Manufacturer

JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO LTD

1.3. Testing Facility

Test Site

CCIC Southern Testing Co., Ltd. Suzhou Branch

Test Site Location

Building 2, Block B, Dongfang Industrial Park, No.20 Huayun Road, Loufeng, Suzhou Industrial Park

1.4. Feature of Product

Product Name	Infrared Thermometer
Model No.	YT-1,YT-1A,YT-1B,YT-1C
Brand Name	yuwell
Software Version	V1.0
Hardware Version	V1.0

Note:

1. The EUT was defined as Class B Group 1 equipment by customers, and was specified to be used in Home healthcare environment.

2. Functional difference:

	Additional Function	
Function / Model	Range Finding	Shake
YT-1	√	√
YT-1A	√	×
YT-1B	×	√
YT-1C	×	×

3.The product covered by this report is Infrared Thermometer and it has working mode and standby mode. Models YT-1A, YT-1B, YT-1C are same as YT-1 except for additional function. YT-1 supports the complete functions. After evaluation, through this report YT-1 is tested as typical model; YT-1A, YT-1B, YT-1C for supplementary testing of EMC related items. For details, see table below:

Model	working mode	standby mode
YT-1	All applicable items	Radiated Emission
YT-1A	Radiated Emission	/
YT-1B	Radiated Emission	/
YT-1C	Radiated Emission	/

4. For more detailed features about the EUT, please refer to the manufacture's specification or the user's manual.

1.5. Standards Applicable for Testing

The EUT complies with the requirements of IEC 60601-1-2:2014, EN 60601-1-2:2015.

EMI Test:

CISPR 11: 2010 (Conducted Emission)
CISPR 11: 2010 (Radiated Emission)
IEC/EN 61000-3-2: 2014 (Harmonic)
IEC/EN 61000-3-3: 2013 (Flicker)

EMS Test:

EN/IEC 61000-4-2: 2009 (ESD)
IEC/EN 61000-4-3: 2006+A1:2008+A2:2010 (RS)
IEC/EN 61000-4-4: 2012 (EFT)
IEC/EN 61000-4-5: 2014 (Surge)
IEC/EN 61000-4-6: 2014 (CS)
IEC/EN 61000-4-8: 2010 (PFM)
IEC/EN 61000-4-11: 2004 (Dips)

1.6. Performance Criteria

General Performance Criteria (IEC/EN 60601-1-2):

The ME equipment or ME system shall be able to provide the basic safety and essential performance. The following degradations, if associated with basic safety and essential performance, shall not be allowed:

- Component failures;
- Changes in programmable parameters;
- Reset to factory defaults (manufacturer's presets);
- Change of operating mode;
- False alarms;
- Cessation or interruption of any intended operation, even if accompanied by an alarm;
- Initiation of any unintended operation, including unintended or uncontrolled motion, even if accompanied by an alarm;
- Error of a displayed numerical value sufficiently large to affect diagnosis or treatment;
- Noise on a waveform in which the noise would interfere with diagnosis, treatment or monitoring;
- artefact or distortion in an image in which the artefact would interfere with diagnosis, treatment or monitoring;
- Failure of automatic diagnosis or treatment ME equipment or ME system to diagnose or treat, even if accompanied by an alarm.

For ME equipment or ME systems with multiple functions, the criteria apply to each function, parameter and channel. The ME equipment or ME system may exhibit degradation of performance (e.g. deviation from manufacturer's specifications) that does not affect basic safety and essential performance.

The device should comply with Table 201.101 of ISO 80601-2-56.

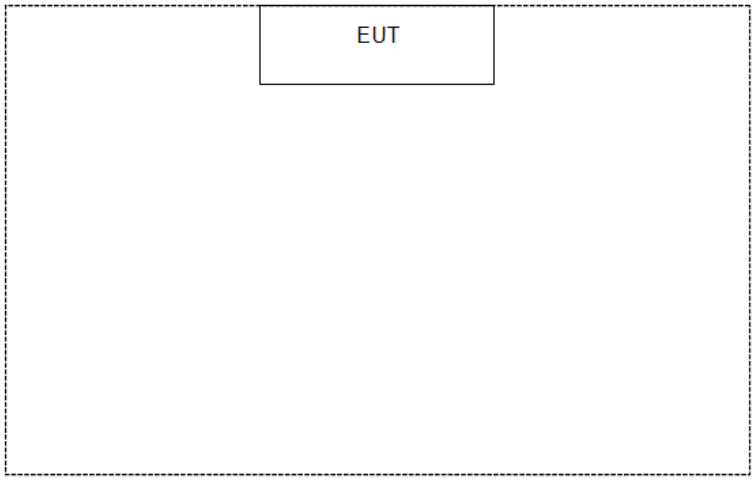
2. Test Configuration of Equipment under Test

2.1. Test Mode

Pre-test Mode	
EMI Test	working mode & standby mode
Final Test Mode	
EMI Test	working mode
EMS Test	working mode

NOTE: For details, refer to section 1.4.

2.2. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal Cable Description
A	N/A	N/A
B	N/A	N/A
C	N/A	N/A

2.3. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	/	/	/	/	/
2	/	/	/	/	/

2.4. Test Procedure

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	Adjust the EUT to the mode which is needed.
4	Confirm the EUT working normally.
5	Start test.

3. Test Summary

Test Reference Standard	Test Item	Result (Pass or Fail or N/A)	Remark
Emission Measurements			
CISPR 11	Conducted Emission	N/A	No
CISPR 11	Radiated Emission	Pass	No
IEC/EN 61000-3-2	Harmonic Current Emissions	N/A	No
IEC/EN 61000-3-3	Voltage Fluctuations and Flicker	N/A	No
Immunity Measurements			
IEC/EN 61000-4-2	Electrostatic Discharge	Pass	No
IEC/EN 61000-4-3	Radio-frequency Electromagnetic Field	Pass	No
IEC/EN 61000-4-4	Fast transients, Common Mode	N/A	No
IEC/EN 61000-4-5	Surges	N/A	No
IEC/EN 61000-4-6	Radio-frequency Common Mode	N/A	No
IEC/EN 61000-4-8	Power-frequency Magnetic Fields	Pass	No
IEC/EN 61000-4-11	Voltage Dips and Interruptions	N/A	No

4. Conducted Emission

4.1. Limit of Conducted Emission

<table>
<tr><th colspan="5">Limits for Class A Group 1 Equipment</th></tr>
<tr><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Rated input power of ≦ 20 kVA</td><td colspan="2">Rated input power of ≧ 20 kVA [a]</td></tr>
<tr><td>Quasi-peak dB(μV)</td><td>Average dB(μV)</td><td>Quasi-peak dB(μV)</td><td>Average dB(μV)</td></tr>
<tr><td>0.15-0.5</td><td>79</td><td>66</td><td>100</td><td>90</td></tr>
<tr><td>0.5-5</td><td>73</td><td>60</td><td>86</td><td>76</td></tr>
<tr><td rowspan="3">5-30</td><td rowspan="3">73</td><td rowspan="3">60</td><td>90</td><td>80</td></tr>
<tr><td colspan="2">Decreasing linearly with logarithm of frequency to</td></tr>
<tr><td>73</td><td>60</td></tr>
<tr><td colspan="5">At the transition frequency, the more stringent limit shall apply.
NOTE 1: Limits only apply to low voltage a.c. mains input ports.
NOTE 2: For class A equipment intended to be connected solely to isolated neutral or high impedance earthed (IT) industrial power distribution networks (see IEC 60364-1), the limits defined for group 2 equipment with a rated input power > 75 kVA in Table 6 can be applied.</td></tr>
<tr><td colspan="5">a These limits apply to equipment with a rated input power > 20 kVA and intended to be powered by a dedicated power transformer or generator, and which is not connected to Low Voltage (LV) overhead power lines. For equipment not intended to be powered by a user specific power transformer, the limits for ≤ 20 kVA apply. The manufacturer and/or supplier shall provide information on installation measures that can be used to reduce emissions from the installed equipment. In particular, it shall be indicated that this equipment is intended to be powered by a dedicated power transformer or generator and not by LV overhead power lines.</td></tr>
</table>

NOTE: The rated input power consumption of 20 kVA corresponds for example to a current of approximately 29 A per phase in case of 400 V three-phase power supply networks, and to a current of approximately 58 A per phase in case of 200 V three phase power supply networks.

Limits for Class B Group 1 Equipment		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15-0.5	66 Decreasing linearly with logarithm of frequency to 56	56 Decreasing linearly with logarithm of frequency to 46
0.5-5	56	46
5-30	60	50
At the transition frequency, the more stringent limit shall apply.		

<table>
<tr><th colspan="5">Limits for Class A Group 2 Equipment</th></tr>
<tr><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Rated input power of ≦ 75 kVA</td><td colspan="2">Rated input power of ≧ 75 kVA [a]</td></tr>
<tr><td>Quasi-peak dB(μV)</td><td>Average dB(μV)</td><td>Quasi-peak dB(μV)</td><td>Average dB(μV)</td></tr>
<tr><td>0.15-0.5</td><td>100</td><td>90</td><td>130</td><td>120</td></tr>
<tr><td>0.5-5</td><td>86</td><td>76</td><td>125</td><td>115</td></tr>
<tr><td>5-30</td><td>90 to 73 (Decreasing linearly with logarithm of frequency)</td><td>80 to 60 (Decreasing linearly with logarithm of frequency)</td><td>115</td><td>105</td></tr>
<tr><td colspan="5">At the transition frequency, the more stringent limit shall apply.
NOTE 1: Limits only apply to Low Voltage (LV) a.c. mains input ports.
NOTE 2: For class A equipment with a rated power ≤ 75 kVA intended to be connected solely to isolated neutral or high impedance earthed (IT) industrial power distribution networks (see IEC 60364-1), the limits defined for group 2 equipment with a rated input power > 75 kVA can be applied.</td></tr>
<tr><td colspan="5">a The manufacturer and/or supplier shall provide information on installation measures that can be used to reduce emissions from the installed equipment.</td></tr>
</table>

NOTE: The rated input power consumption of 75 kVA corresponds for example to a current of approximately 108 A per phase in case of 400 V three phase power supply networks and to a current of approximately 216 A per phase in case of 200 V three phase power supply networks.

High-frequency (HF) surgical equipment shall meet the limits specified for group 1 equipment, in stand-by mode of operation. For high-frequency (HF) surgical equipment operating at frequencies outside designated ISM bands (see Group 1 Class A), these limits also apply atthe operating frequency and inside the designated frequency bands. The related measurements shall be performed in a test arrangement in accordance with IEC 60601-2-2.

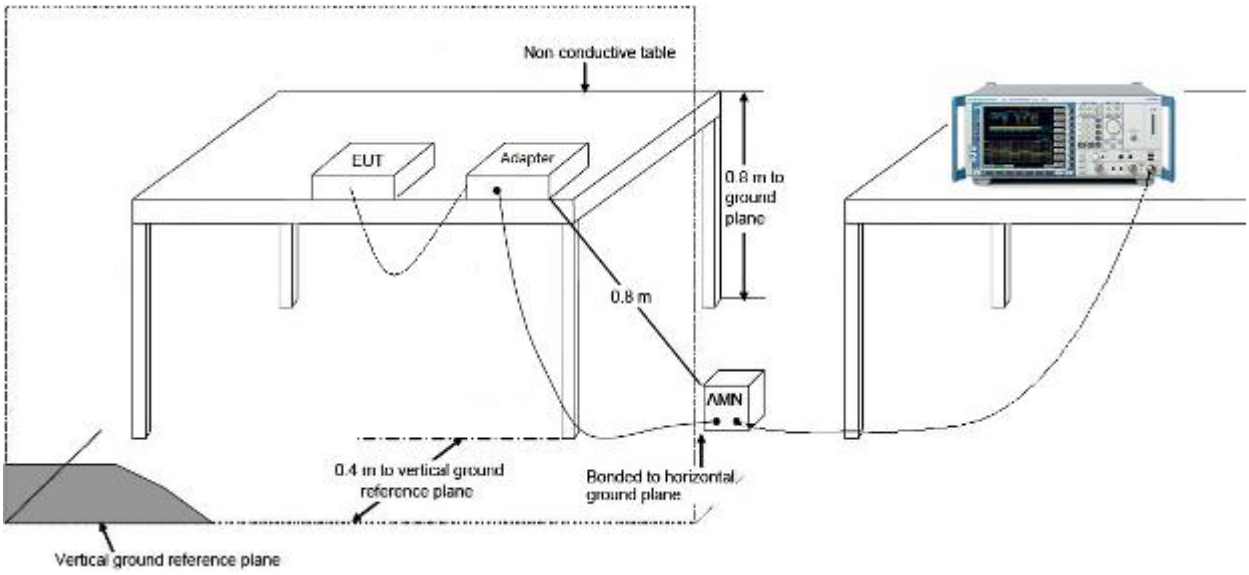
Limits for Class B Group 2 Equipment		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15-0.5	66 Decreasing linearly with logarithm of frequency to 56	56 Decreasing linearly with logarithm of frequency to 46
0.5-5	56	46
5-30	60	50
At the transition frequency, the more stringent limit shall apply.		

Limits for Induction Cooking Appliance				
Frequency (MHz)	All appliances except 100 V rated appliances without an earth connection		100 V rated appliances without an earth connection	
	Quasi-Peak (dBuV)	Average (dBuV)	Quasi-Peak (dBuV)	Average (dBuV)
0.009 - 0.050	110	--	122	--
0.050 - 0.1485	90 Decreasing linearly with logarithm of frequency to 80	--	102 Decreasing linearly with logarithm of frequency to 92	--
0.1485 - 0.50	66 Decreasing linearly with logarithm of frequency to 56	56 Decreasing linearly with logarithm of frequency to 46	72 Decreasing linearly with logarithm of frequency to 62	62 Decreasing linearly with logarithm of frequency to 52
0.50 - 5.0	56	46	56	46
5.0 - 30	60	50	60	50

For Continuous disturbance

For diagnostic X-ray generators operating in intermittent mode, the quasi-peak limits in table above can be relaxed by 20 dB.

4.2. Test Setup



4.3. Test Procedure

The receiver or associated equipment under measurement and the artificial mains network are disposed as shown in 3.2. Measurements shall be carried out using a selective voltmeter having a quasi-peak detector for broadband measurements and an average detector for arrow-band measurements in accordance with CISPR 16-1.

The mains lead shall be arranged to follow the shortest possible path between the receiver and artificial mains network on the ground. The mains lead in excess of 0,8 m separating the equipment under test from the artificial mains network shall be folded back and forth parallel to the lead so as to form a bundle with a length of 0,3 m to 0,4 m.

Earthing of the equipment under test if provided with a safety earth connection, shall be made to the earth terminal provided on the artificial mains network with the shortest possible lead.

If the equipment under test has a coaxial RF input connector, tests shall be performed with and without an earth connection made to the outer conductor screen of the coaxial RF input connector. When these tests are being carried out, no other earth connections shall be made to any additional earth terminal whatever.

If the equipment under test has no coaxial RF input connector and if it has an earth terminal, tests shall be performed with this terminal earthed.

4.4. Test Result

The EUT is not suitable for Conducted Emission.

5. Radiated Emission

5.1. Limit of Radiated Emission

Limits for Group 1 Class A Equipment Measured on a test site				
Frequency range (MHz)	10 m measuring distance rated input power of		3 m measuring distance [b] rated input power of	
	≤ 20 kVA	> 20 kVA [a]	≤ 20 kVA	> 20 kVA [a]
	Quasi-peak dB(μV/m)	Quasi-peak dB(μV/m)	Quasi-peak dB(μV/m)	Quasi-peak dB(μV/m)
30 – 230	40	50	100	90
230 – 1 000	47	50	86	76
On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10. In case of measurements at a separation distance of 30 m, an inverse proportionality factor of 20 dB per decade shall be used to normalize the measured data to the specified distance for determining compliance. At the transition frequency, the more stringent limit shall apply.				
a These limits apply to equipment with a rated input power of > 20 kVA and intended to be used at locations where there is a distance greater than 30 m between the equipment and third party sensitive radio communications. The manufacturer shall indicate in the technical documentation that this equipment is intended to be used at locations where the separation distance to third party sensitive radio services is > 30 m. If these conditions are not met, then the limits for ≤ 20 kVA apply. b The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.				

Limits for Group 1 Class B Equipment Measured on a test site		
Frequency (MHz)	10 m measuring distance	3 m measuring distance [a]
	Quasi-peak dB(μV/m)	Quasi-peak dB(μV/m)
30 - 230	30	40
230 - 1000	37	47

On a test site, class B equipment can be measured at a nominal distance of 3 m or 10 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10. At the transition frequency, the more stringent limit shall apply.
a The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.

Limits for Group 1 Class A Equipment Measured in situ		
Frequency (MHz)	Limits with measuring distance 30 m from the outer face of the exterior wall of the building in which the equipment is situated	
	Electric field Quasi-peak dB(μV/m)	Electric field Quasi-peak[a] dB(μV/m)
0.15-0.49	-	13.5
0.49-3.95	-	3.5
3.95-20	-	-11.5
20-30	-	-21.5
30-230	30	-
230-1000	37	-
At the transition frequency, the more stringent limit shall apply. If local conditions do not allow for measurements at 30 m, then a larger distance can be used. In this case, an inverse proportionality factor of 20 dB per decade shall be used to normalize the measured data to the specified distance for determining compliance.		
a These limits apply in addition to the limits in the frequency range 30 MHz to 1 GHz to radiated disturbances originating from the operation frequency and its harmonics appearing in the frequency range 150 kHz to 30 MHz, caused by the installed class A group 1 equipment with a rated input power exceeding 20 kVA. In the event that the ambient noise level exceeds the above limits, the emissions of the EUT shall not increase this noise floor by more than 3 dB.		

Limits for Group 2 Class A Equipment Measured on a test site						
Frequency range MHz	Limits for a measuring distance D in m					
	On a test site D = 30 m from the equipment		On a test site D = 10 m from the equipment		On a test site D = 3 m from the equipment [a]	
	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μV/m)	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μV/m)	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μV/m)
0.15 – 0.49	–	33.5	–	57.5	–	57.5
0.49 – 1.705	–	23.5	–	47.5	–	47.5
1.705 – 2.194	–	28.5	–	52.5	–	52.5
2.194 – 3.95	–	23.5	–	43.5	–	43.5
3.95 – 20	–	8.5	–	18.5	–	18.5
20 – 30	–	–1.5	–	8.5	–	8.5
30 – 47	58	–	68	–	78	–
47 – 53.91	40	–	50	–	60	–
53.91 – 54.56	40	–	50	–	60	–
54.56 – 68	40	–	50	–	60	–
68 – 80.872	53	–	63	–	73	–
80.872 – 81.848	68	–	78	–	88	–
81.848 – 87	53	–	63	–	73	–
87 – 134.786	50	–	60	–	70	–
134.786 – 136.414	60	–	70	–	80	–
136.414 – 156	50	–	60	–	70	–
156 – 174	64	–	74	–	84	–
174 – 188.7	40	–	50	–	60	–
188.7 – 190.979	50	–	60	–	70	–
190.979 – 230	40	–	50	–	60	–
230 – 400	50	–	60	–	70	–
400 – 470	53	–	63	–	73	–
470 – 1 000	50	–	60	–	70	–

On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10.

At the transition frequency, the more stringent limit shall apply.

a The limits specified for the 3 m separation distance apply only to small equipment meeting the size

criterion defined in 3.10.

Limits for Group 2 Class B Equipment Measured on a test site					
Frequency range MHz	Limits for a measuring distance D in m				
	Electric field				Magnetic field D = 3 m
	D = 10 m		D = 3 m [b]		
	Quasi-peak	Average [a]	Quasi-peak	Average [a]	Quasi-peak
	dB(μV/m)		dB(μV/m)		dB(μV/m)
0,15 – 30	–	–	–	–	39 Decreasing linearly with logarithm of frequency to 3
30 – 80,872	30	25	40	35	-
80,872 – 81,848	50	45	60	55	-
81,848 – 134,786	30	25	40	35	-
134,786 – 136,414	50	45	60	55	-
136,414 – 230	30	25	40	35	-
230 – 1 000	37	32	47	42	

On a test site, class B equipment can be measured at a nominal distance of 3 m or 10 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10. At the transition frequency, the more stringent limit should apply.

a The average limits apply to magnetron driven equipment only. If magnetron driven equipment exceeds the quasi-peak limit at certain frequencies, then the measurement shall be repeated at these frequencies with the average detector, and the average limits specified in this table apply.

b The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.

Limits for Group 2 Class A Equipment Measured in situ		
Frequency range MHz	Limits for a measuring distance of D in m from the exterior wall of the building	
	Electric field Quasi-peak dB(μV/m)	Electric field Quasi-peak[a] dB(μV/m)
0.15 – 0.49	-	23.5
0.49 – 1.705	-	13.5
1.705 – 2.194	-	18.5
2.194 – 3.95	-	13.5
3.95 – 20	-	-1.5
20 – 30	-	-11.5
30 – 47	48	-
47 – 53.91	30	-
53.91 – 54.56	30	-
54.56 – 68	30	-
68 – 80.872	43	-
80.872 – 81.848	58	-
81.848 – 87	43	-
87 – 134.786	40	-
134.786 – 136.414	50	-
136.414 – 156	40	-
156 – 174	54	-
174 – 188.7	30	-
188.7 – 190.979	40	-
190.979 – 230	30	-
230 – 400	40	-
400 – 470	43	-
470 – 1 000	40	--
At the transition frequency, the more stringent limit shall apply.		

For group 2 equipment measured *in situ*, the measuring distance *D* from the exterior wall of the building in which the equipment is situated equals (30 + *x*/*a*) m or 100 m whichever is smaller, provided that the measuring distance *D* is within the boundary of the premises. In the case where the calculated distance *D* is beyond the boundary of the premises, the measuring distance *D* equals *x* or 30 m, whichever is longer.

For the calculation of the above values:

x is the nearest distance between the outside wall of the building in which the equipment is situated and the boundary of the user's premises in each measuring direction;

a = 2,5 for frequencies lower than 1 MHz;

a = 4,5 for frequencies equal to or higher than 1 MHz.

Limits of Magnetic Field Induced Current in a 2 m Loop Antenna for Induction Cooking Appliances for Domestic Use		
Frequency (MHz)	Horizontal Component Quasi-Peak dB(μA)	Vertical Component Quasi-Peak dB(μA)
0.009 - 0.070	88	106
0.070 - 0.1485	88 Decreasing linearly with logarithm of frequency to 58	106 Decreasing linearly with logarithm of frequency to 76
0.1485 - 30	58 Decreasing linearly with logarithm of frequency to 22	76 Decreasing linearly with logarithm of frequency to 40
The limits of this table apply to induction cooking appliances for domestic use which have a diagonal dimension of less than 1,6 m. The measurement is performed using the loop antenna system (LAS) as described in 7.6 of CISPR 16-2-3.		

Limits of the magnetic field strength for induction cooking appliances intended for commercial use	
Frequency (MHz)	Limits at 3 m distance Quasi-peak dB(μA/m)
0.009 - 0.070	69
0.070 - 0.1485	69 Decreasing linearly with logarithm of frequency to 39

0.1485 - 4.0	39 Decreasing linearly with logarithm of frequency to 3
4.0 - 30	3
The limits of this table apply to induction cooking appliances intended for commercial use and those for domestic use with a diagonal diameter of more than 1,6 m. The measurements are performed at 3 m distance with a 0,6 m loop antenna as described in 4.2.1 of CISPR 16-1-4. The antenna shall be vertically installed, with the lower edge of the loop at 1 m height above the floor.	

Limits for Class A EDM and ARC Welding Equipment Measured on a Test Site		
Frequency (MHz)	Limits for a measuring distance D in m	
	D = 10 m	D = 3 m [a]
	Quasi-peak dB(μV/m)	Quasi-peak dB(μV/m)
30 - 230	80 Decreasing linearly with logarithm of frequency to 60	90 Decreasing linearly with logarithm of frequency to 70
230 - 1000	60	70
On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10. In case of measurements at a separation distance of 30 m, an inverse proportionality factor of 20 dB per decade shall be used to normalize the measured data to the specified distance for determining compliance.		
a The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.		

Peak Limits for Group 2, Class A and Class B ISM Equipment Producing CW Type Disturbances and Operating at Frequency above 400 MHz		
Frequency (GHz)	Field strength at a measurement distance of 3 m dB(uV/m)	
1 - 18	Class A	Class B
Within harmonic frequency bans	82*	70
Outside harmonic frequency bans	70	70

Note 1: Peak measurements with a resolution bandwidth of 1 MHz and a video signal bandwidth higher than or equal to 1 MHz.

Note 2: In this table, “harmonic frequency bands” means the frequency bands which are multiples of the ISM bands allocated above 1 GHz.

Note(*): At the upper and lower edge frequency of harmonic frequency bands, the lower limit of 70 dB(uV/m) applies.

Peak Limits for Group 2, Class B ISM Equipment Producing Fluctuating Disturbances other than CW and operating at frequencies above 400 MHz	
Frequency (GHz)	Field strength at a measurement distance of 3 m dB(uV/m)
1 - 2.3	92
2.3 - 2.4	110
2.5 - 5.725	92
5.875 - 11.7	92
11.7 - 12.7	73
12.7 - 18	92

Note 1: Peak measurements with a resolution bandwidth of 1 MHz and a video signal bandwidth higher or equal to 1 MHz.

Note 2: Limits in this table were derived considering fluctuating sources such as magnetron-driven microwave ovens.

Limits for Group 2, Class B ISM Equipment Operating at Frequencies above 400 MHz	
Frequency (GHz)	Field strength at a measurement distance of 3 m dB(uV/m)
1 - 2.4	60
2.5 - 5.725	60
5.875 - 18	60

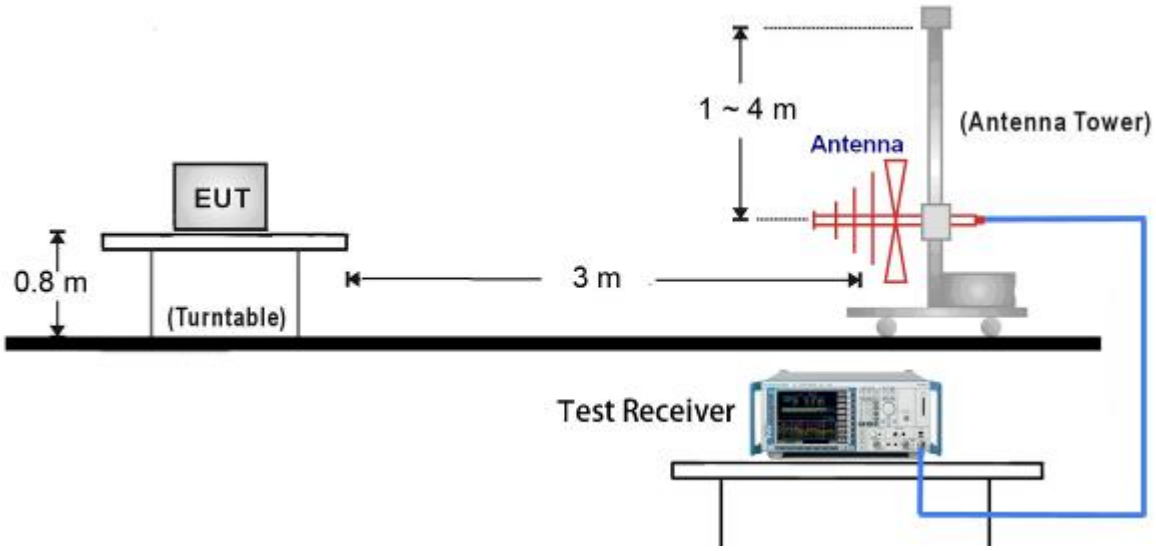
Note 1: Weighted measurements with a resolution bandwidth of 1 MHz and a video bandwidth of 10 Hz.

Note 2: To check the limits of this table, measurements need only be performed around two center frequencies: the highest emission in the 1005 MHz - 2395 MHz band and the highest peak emission in the 2505 MHz to 17995 MHz band (outside the band 5720 MHz - 5880 MHz). At these two center frequencies, measurements are performed with a span of 10 MHz on the spectrum analyzer.

Limits for Electromagnetic Radiation Disturbances to Protect Specific Safety Services in Particular Areas		
Frequency (MHz)	Measuring distance from exterior wall outside the building in which the equipment is situated (m)	Limits (dBuV/m)
0.2835 - 0.5265	30	65
74.6 - 75.4	10	30
108 - 137	10	30
242.95 - 243.05	10	37
328.6 - 335.4	10	37
960 - 1215	10	37

Note: Many aeronautical communications require the limitation of vertically radiated electromagnetic disturbances. Work is continuing to determine what provisions may be necessary to provide protection for such systems.

5.2. Test Setup



5.3. Test Procedure

Starting with the front of the receiver under test facing the measuring antenna, the measuring antenna is adjusted for horizontal polarization measurement and its height varied between 1 m and 4 m until the maximum reading is obtained.

The receiver under test is then rotated about its centre until the maximum meter reading is obtained, after which the measuring antenna height is again varied between 1 m and 4 m and the maximum reading noted.

The procedure is repeated for vertical polarization of the measuring antenna.

The highest value found, following this procedure, is defined as the radiation figure of the receiver.

If at certain frequencies the ambient signal field strength is high at the position of the receiving antenna, one of the following methods may be used to show compliance of the equipment under test.

a) For small frequency bands with high ambient signals, the disturbance value may be interpolated from the adjacent values. The interpolated value shall lie on the curve describing a continuous function of the disturbance values adjacent to the ambient noise.

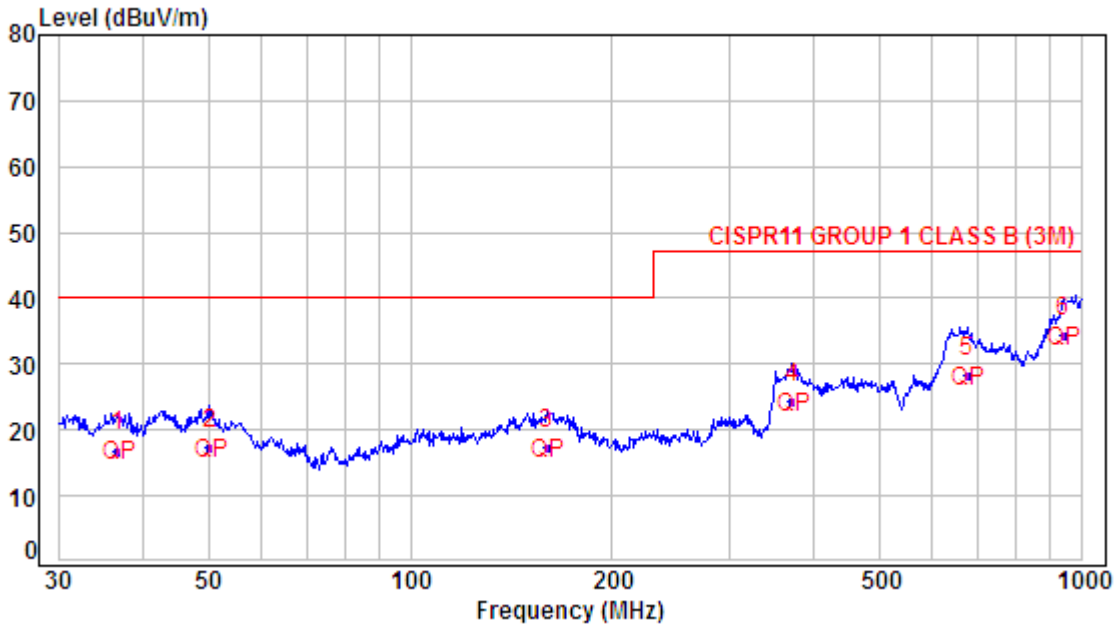
b) Another possibility is to use the method described in annex C of CISPR 11.

5.4. Test Result

Site:	Semi anechoic chamber	Date of Test:	2019/07/7
Limit:	CISPR11_RE(3m)_Group1_ClassB	Engineer:	Yuan ZiWen
Probe:	VULB 9160_ A141202112	Polarity:	Horizontal
EUT:	Infrared Thermometer	Power:	DC 3V (Powered by battery)
Note:	Working mode		

Final mode

Working mode (YT-1):



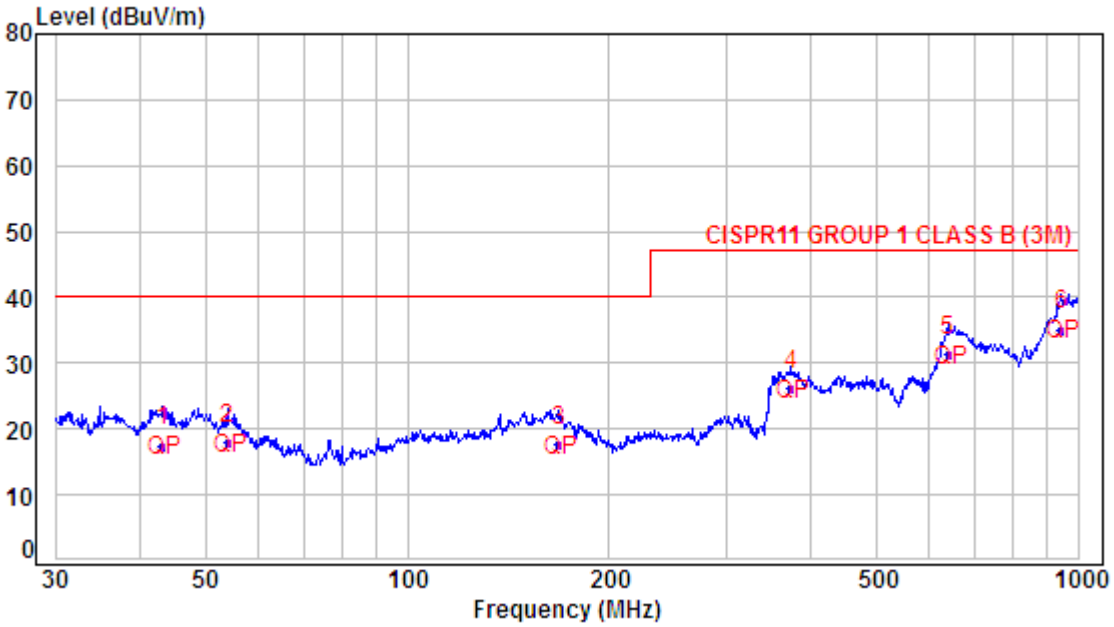
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	36.64	14.82	2	16.82	40	23.18	QP	176	132
2	50.23	15.3	2.01	17.31	40	22.69	QP	163	189
3	159.78	16.63	0.61	17.24	40	22.76	QP	198	326
4	370.70	23.68	0.51	24.19	47	22.81	QP	184	236
5	675.21	27.47	0.71	28.18	47	18.82	QP	185	222
6	938.83	32.92	1.38	34.3	47	12.7	QP	168	251

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1A):



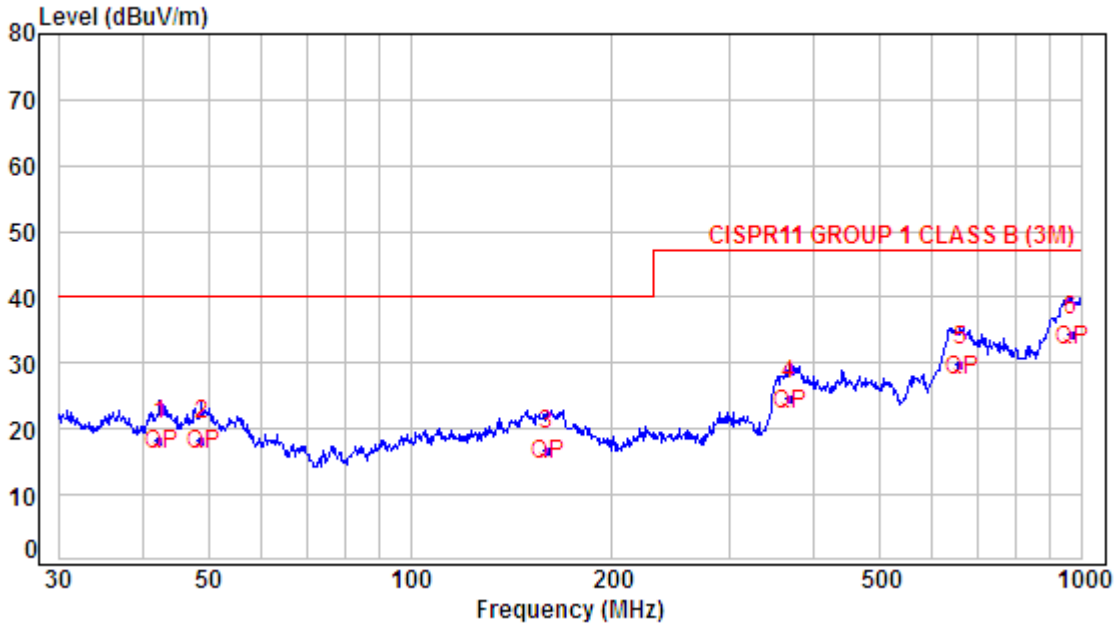
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	43.20	15.37	2	17.37	40	22.63	QP	189	326
2	54.07	14.91	2.99	17.9	40	22.1	QP	159	258
3	168.41	16.52	1	17.52	40	22.48	QP	198	245
4	373.31	23.52	2.55	26.07	47	20.93	QP	200	147
5	640.61	28.19	2.99	31.18	47	15.82	QP	180	155
6	942.13	33	2	35	47	12	QP	200	305

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1B):



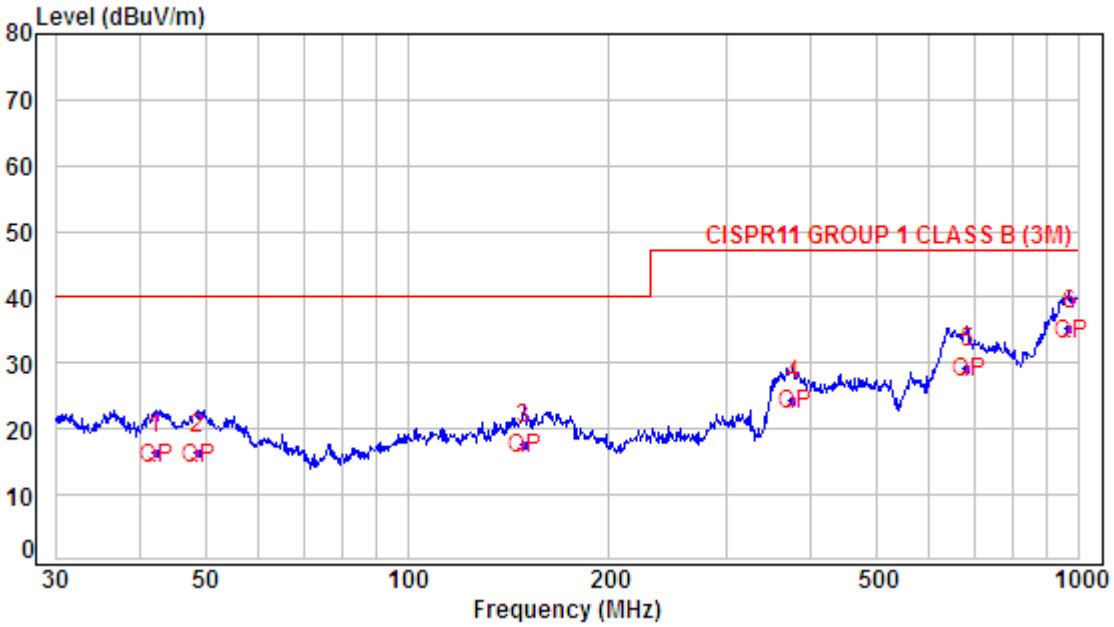
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	42.30	15.32	2.99	18.31	40	21.69	QP	158	237
2	48.84	15.34	2.99	18.33	40	21.67	QP	178	258
3	159.78	16.63	0.11	16.74	40	23.26	QP	196	287
4	366.82	23.49	1	24.49	47	22.51	QP	186	245
5	658.84	27.69	2	29.69	47	17.31	QP	200	68
6	965.54	33.26	1	34.26	47	12.74	QP	189	258

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1C):



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	42.15	15.31	0.99	16.3	40	23.7	QP	186	245
2	48.67	15.35	0.99	16.34	40	23.66	QP	184	216
3	148.96	16.15	1.56	17.71	40	22.29	QP	174	289
4	375.94	23.34	1.01	24.35	47	22.65	QP	184	328
5	682.35	27.32	2	29.32	47	17.68	QP	200	147
6	968.93	33.24	2	35.24	47	11.76	QP	188	289

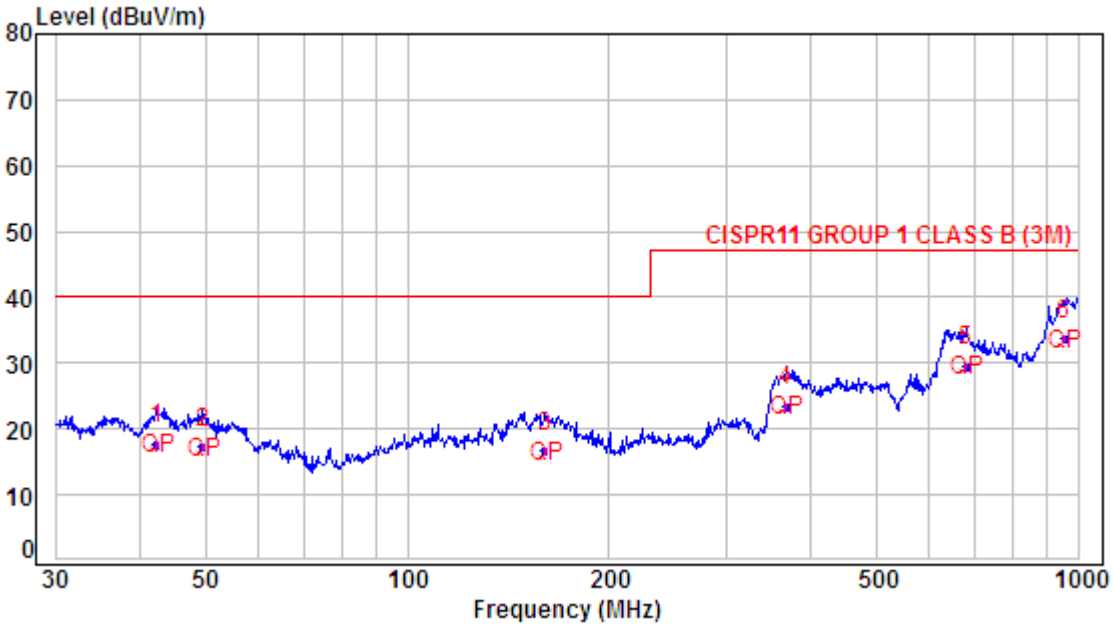
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site:	Semi anechoic chamber	Date of Test:	2019/07/7
Limit:	CISPR11_RE(3m)_Group1_ClassB	Engineer:	Yuan ZiWen
Probe:	VULB 9160_ A141202112	Polarity:	Vertical
EUT:	Infrared Thermometer	Power:	DC 3V (Powered by battery)
Note:	Working mode		

Final mode

Working mode (YT-1):



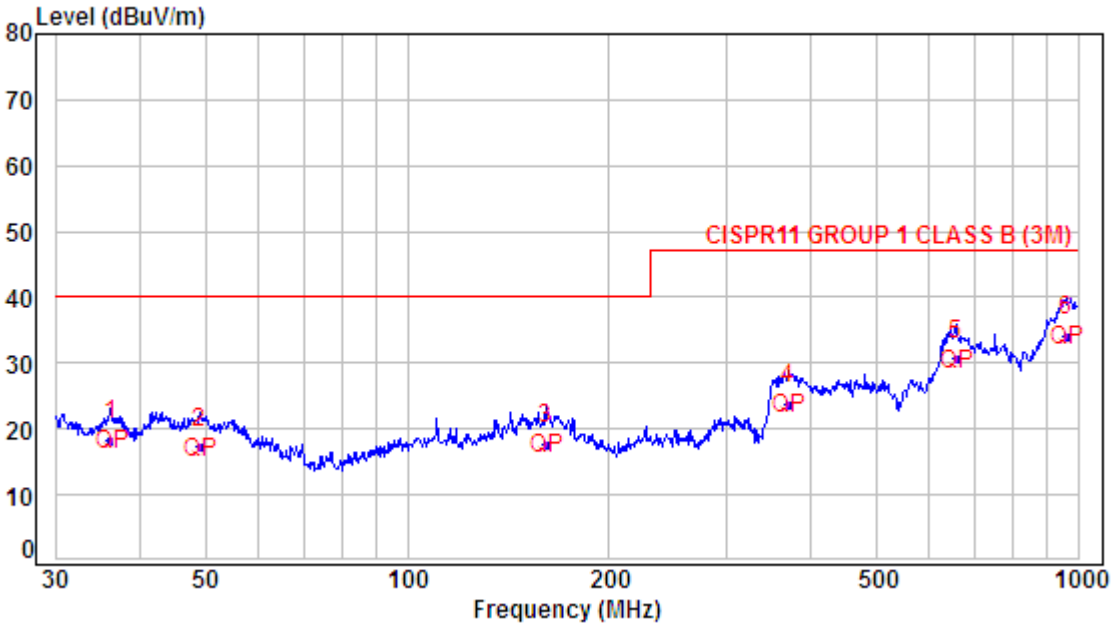
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)
1	42.30	15.32	2.36	17.68	40	22.32	QP	100	92
2	49.53	15.3	2.01	17.31	40	22.69	QP	100	130
3	160.35	16.68	0	16.68	40	23.32	QP	100	160
4	366.82	23.49	0	23.49	47	23.51	QP	100	150
5	679.96	27.59	2	29.59	47	17.41	QP	100	135
6	952.09	32.72	0.99	33.71	47	13.29	QP	100	236

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1A):



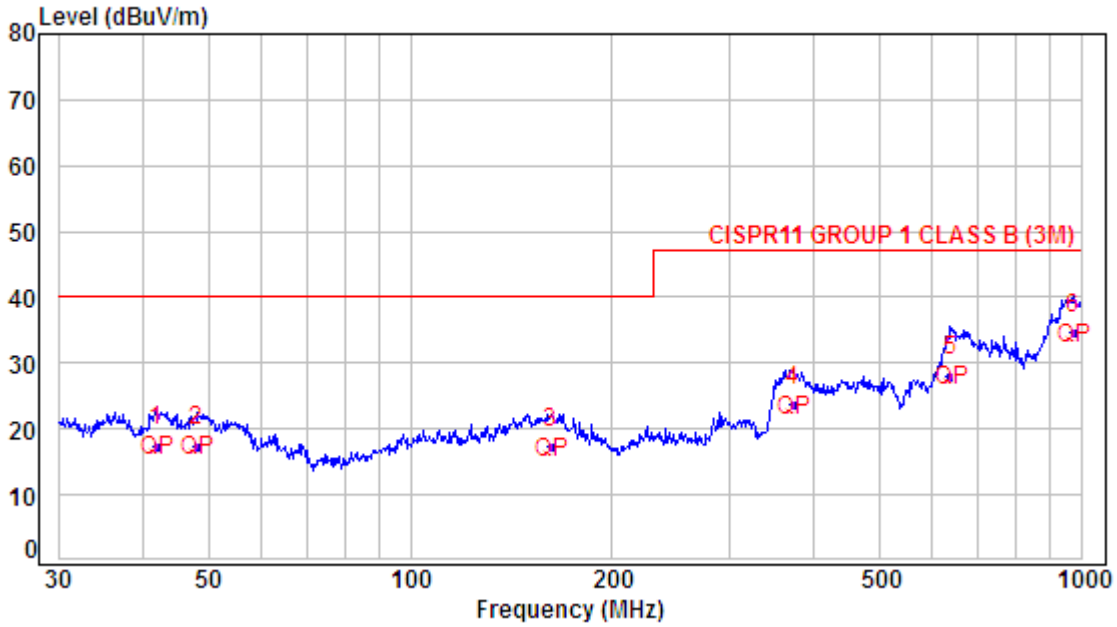
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	36.13	14.81	3.55	18.36	40	21.64	QP	100	123
2	49.01	15.33	2	17.33	40	22.67	QP	100	159
3	160.91	16.71	1	17.71	40	22.29	QP	100	147
4	369.41	23.69	0.1	23.79	47	23.21	QP	100	278
5	656.53	27.66	3	30.66	47	16.34	QP	100	261
6	958.79	33.21	1	34.21	47	12.79	QP	100	299

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1B):



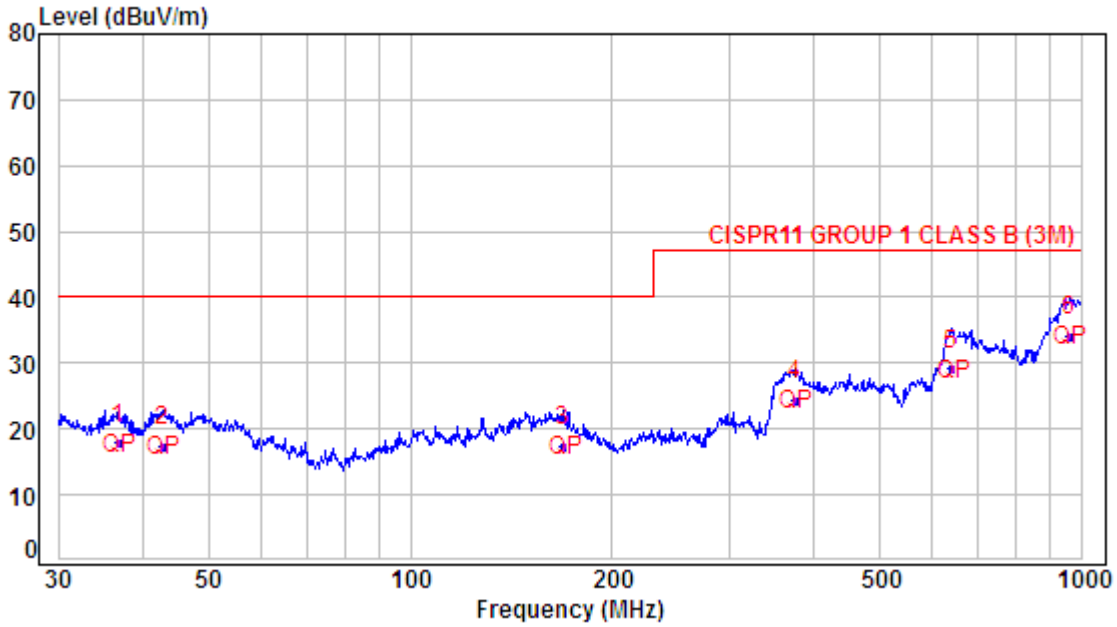
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	41.86	15.25	2.12	17.37	40	22.63	QP	100	165
2	47.99	15.37	2.12	17.49	40	22.51	QP	100	147
3	162.04	16.76	0.5	17.26	40	22.74	QP	100	256
4	372.01	23.6	0.1	23.7	47	23.3	QP	100	332
5	638.37	27.98	0.09	28.07	47	18.93	QP	100	325
6	972.34	33.1	1.55	34.65	47	12.35	QP	100	314

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Final mode

Working mode (YT-1C):



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (°)
1	36.77	14.82	3	17.82	40	22.18	QP	180	115
2	42.75	15.34	2	17.34	40	22.66	QP	172	139
3	169.01	16.46	1	17.46	40	22.54	QP	168	222
4	374.62	23.43	1	24.43	47	22.57	QP	188	326
5	640.61	28.19	0.99	29.18	47	17.82	QP	200	241
6	958.79	33.21	1	34.21	47	12.79	QP	190	200

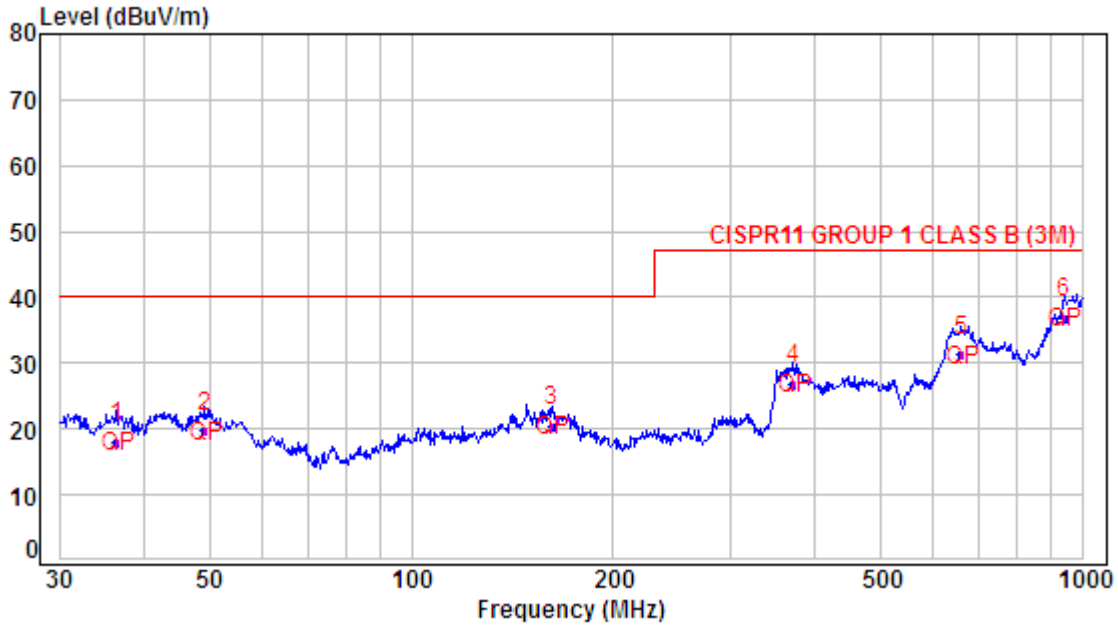
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site:	Semi anechoic chamber	Date of Test:	2019/07/7
Limit:	CISPR11_RE(3m)_Group1_ClassB	Engineer:	Yuan ZiWen
Probe:	VULB 9160_ A141202112	Polarity:	Horizontal
EUT:	Infrared Thermometer	Power:	DC 3V (Powered by battery)
Note:	Standby mode		

Final mode

Standby mode (YT-1):



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)
1	36.38	14.82	3.18	18	40	22	QP	154	299
2	49.19	15.32	4.34	19.66	40	20.34	QP	188	209
3	162.04	16.76	3.67	20.43	40	19.57	QP	176	100
4	370.70	23.68	3.23	26.91	47	20.09	QP	200	143
5	658.84	27.69	3.59	31.28	47	15.72	QP	200	162
6	938.83	32.92	4	36.92	47	10.08	QP	180	110

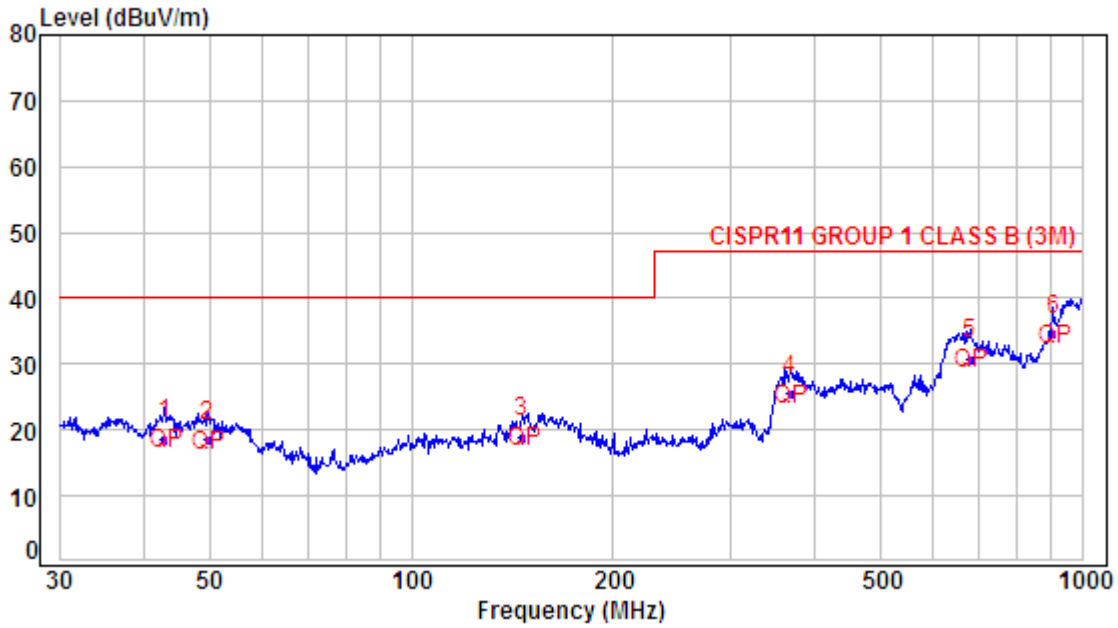
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site:	Semi anechoic chamber	Date of Test:	2019/07/7
Limit:	CISPR11_RE(3m)_Group1_ClassB	Engineer:	Yuan ZiWen
Probe:	VULB 9160_ A141202112	Polarity:	Vertical
EUT:	Infrared Thermometer	Power:	DC 3V (Powered by battery)
Note:	Standby mode		

Final mode

Standby mode (YT-1):



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)
1	42.90	15.36	3.21	18.57	40	21.43	QP	100	213
2	49.71	15.3	3.22	18.52	40	21.48	QP	100	109
3	146.37	15.82	3.12	18.94	40	21.06	QP	100	255
4	366.82	23.49	2	25.49	47	21.51	QP	100	342
5	679.96	27.59	3.22	30.81	47	16.19	QP	100	185
6	906.48	29.79	4.88	34.67	47	12.33	QP	100	305

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

5.5. Test Photograph

Description: **Front** View Radiated Emission Test Setup

Test Mode: Working mode & Standby mode

Description: **Back** View Radiated Emission Test Setup

Test Mode: Working mode & Standby mode

6. Harmonic Current Emissions

6.1. Limit of Harmonic Current Emissions

(a) Limits of Class A Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current A	Harmonics Order n	Maximum Permissible harmonic current A
Odd harmonics		Even harmonics	
3	2.30	2	1.08
5	1.14	4	0.43
7	0.77	6	0.30
9	0.40	$8 \leq n \leq 40$	0.23 * 8/n
11	0.33		
13	0.21		
$15 \leq n \leq 39$	0.15 * 15/n		

(b) Limits of Class B Harmonics Currents

For Class B equipment, the harmonic of the input current shall not exceed the maximum permissible values given in table that is the limit of Class A multiplied by a factor of 1.5.

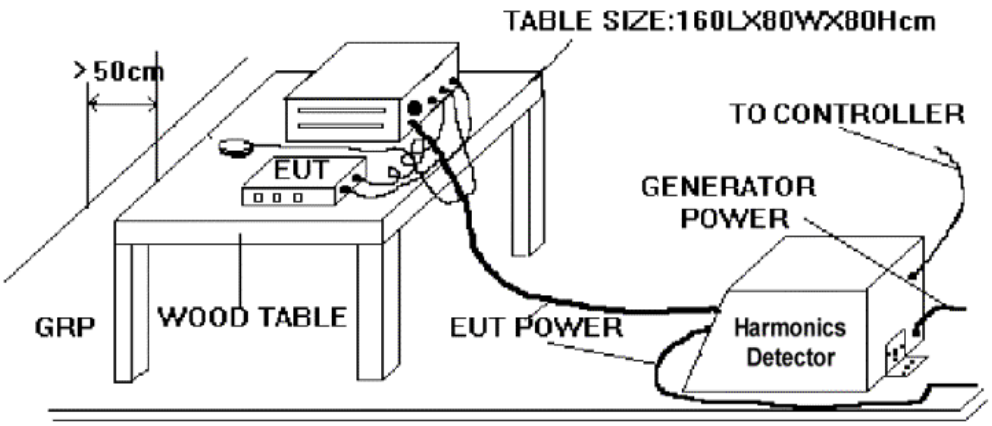
(c) Limits of Class C Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current Expressed as a percentage of the input current at the fundamental frequency %
2	2
3	$30 \cdot \lambda^*$
5	10
7	7
9	5
$11 \leq n \leq 39$ (odd harmonics only)	3
$*\lambda$ is the circuit power factor	

(d) Limits of Class D Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current per watt mA/W	Maximum Permissible harmonic current A
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
11 ≤ n ≤ 39 (odd harmonics only)	3.85/n	See limit of Class A

6.2. Test Setup



6.3. Test Procedure

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.98 times and 1.02 times shall be performed.

6.4. Test Result

The EUT is not suitable for Harmonic Current Emissions.

7. Voltage Fluctuations and Flicker

7.1. Limit of Voltage Fluctuations and Flicker

The following limits apply:

- the value of P_{st} shall not be greater than 1.0;
- the value of P_{lt} shall not be greater than 0.65;
- the value of d(t) during a voltage change shall not exceed 3.3% for more than 500ms;
- the relative steady-state voltage change, d_c, shall not exceed 3.3%;
- the maximum relative voltage change, d_{max}, shall not exceed;

a) 4% without additional conditions;

b) 6% for equipment which is:

- switched manually, or
- switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.

NOTE: The cycling frequency will be further limited by the P_{st} and P_{lt} limit.

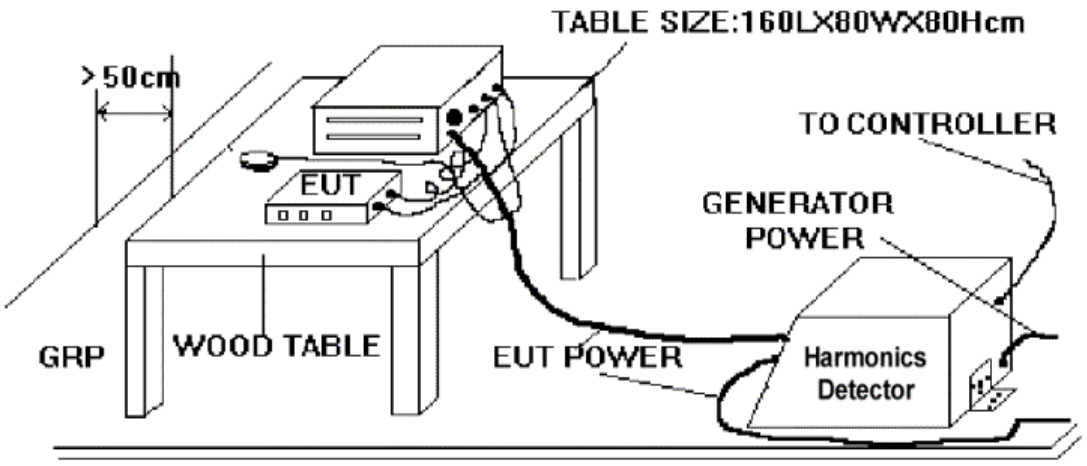
For example: a d_{max} of 6% producing a rectangular voltage change characteristic twice per hour will give a P_{lt} of about 0.65.

c) 7% for equipment which is:

- attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
- switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

P_{st} and P_{1t} requirements shall not be applied to voltage changes caused by manual switching.

7.2. Test Setup



7.3. Test Procedure

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.98 times and 1.02 times shall be performed.

7.4. Test Result

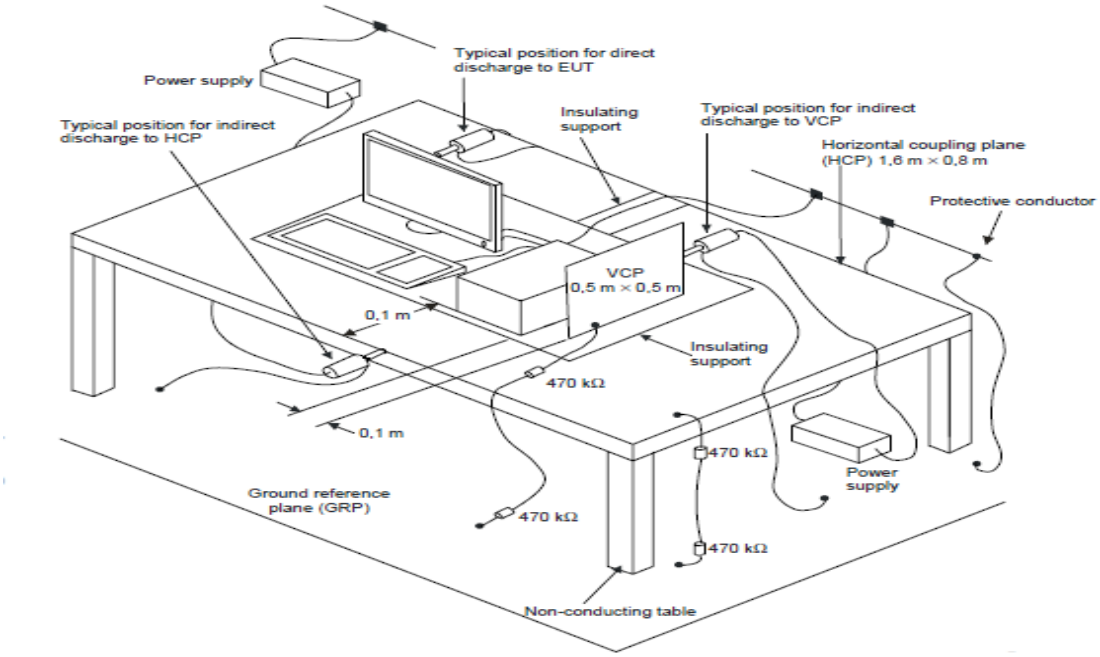
The EUT is not suitable for Voltage Fluctuations and Flicker.

8. Electrostatic Discharge

8.1. Limit of Electrostatic Discharge

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Enclosure Port				
Electrostatic Discharge		±2 , ±4, ±8, ±15 Air Discharge ±8 Contact Discharge		Reference Chapter 1.6
Patient coupling Port				
Electrostatic Discharge c)		±2 , ±4, ±8, ±15 Air Discharge ±8 Contact Discharge		Reference Chapter 1.6
c) Discharges shall be applied with no connection to an artificial hand and no connection to PATIENT simulation. PATIENT simulation may be connected after the test as needed in order to verify BASIC SAFETY and ESSENTIAL PERFORMANCE.				
Signal input/output parts Port				
Electrostatic Discharge e)		±2 , ±4, ±8, ±15 Air Discharge ±8 Contact Discharge		Reference Chapter 1.6
e) Connectors shall be tested per 8.3.2 and Table 4 of IEC 61000-4-2:2008. For insulated connector shells, perform air discharge testing to the connector shell and the pins using the rounded tip finger of the ESD generator, with the exception that the only connector pins that are tested are those that can be contacted or touched, under conditions of INTENDED USE, by the standard test finger shown in Figure 6 of the general standard, applied in a bent or straight position.				

8.2. Test Setup



8.3. Test Procedure

Direct application of discharges to the EUT:

Contact discharge was applied only to conductive surfaces of the EUT.

Air discharges were applied only to non-conductive surfaces of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges will be keep longer 1 second. It was at least twenty-five single discharges with positive and negative at the same selected point.

The selected point, which was performed with electrostatic discharge, was marked on the red label of the EUT.

Indirect application of discharges to the EUT:

Vertical Coupling Plane (VCP):

The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least twenty-five single discharges with positive and negative at the same selected point.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least twenty-five single discharges with positive and negative at the same selected point.

8.4. Test Result

Test Site	Immunity 1 chamber	Date of Test	2019/07/10
Product	Infrared Thermometer	Test Engineer	Yuan ZiWen
Temperature	23°C	Relative Humidity	45%RH
Barometric Pressure	101kPa	Test Voltage	DC 3V (Powered by battery)
Note	Working mode		

Air Discharge									
Test Location	Test Level								Result
	+2kV	-2kV	+4kV	-4kV	+8kV	-8kV	+15kV	-15kV	
1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
2	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
3	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
4	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
5	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
6	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
7	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
8	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
9	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
10	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply
11	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Note1	Comply

Contact Discharge			
Test Location	Test Level		Result
	+8kV	-8kV	
N/A	N/A	N/A	N/A

Horizontal Coupling			
Test Location	Test Level		Result
	+8kV	-8kV	
Front	Note1	Note1	Comply
Rear	Note1	Note1	Comply
Left	Note1	Note1	Comply
Right	Note1	Note1	Comply

Vertical Coupling			
Test Location	Test Level		Result
	+8kV	-8kV	
Front	Note1	Note1	Comply
Rear	Note1	Note1	Comply
Left	Note1	Note1	Comply
Right	Note1	Note1	Comply

Note:

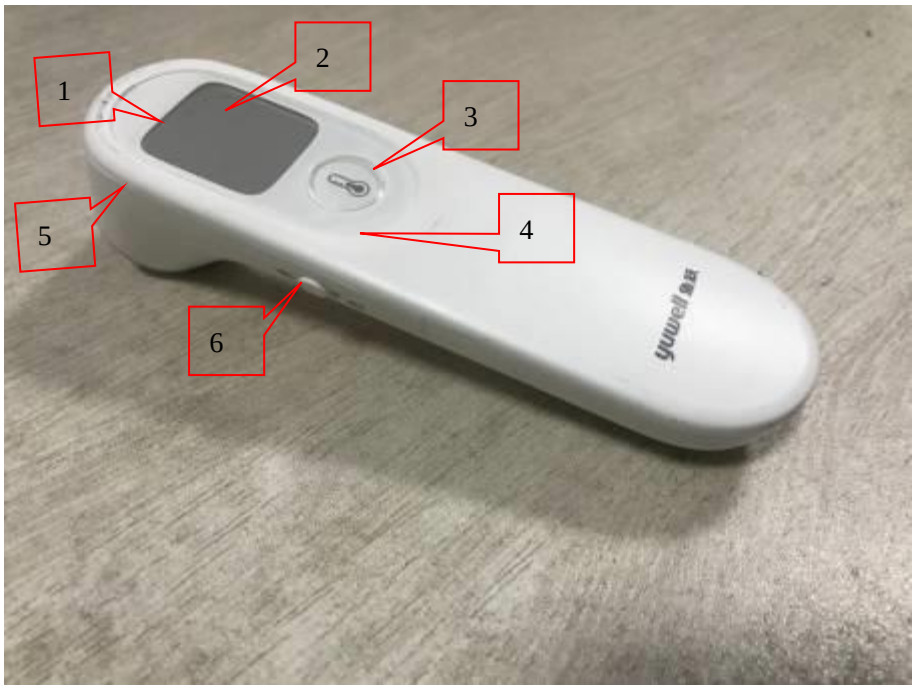
1. There is no any degradation of performance and function, and the test result complies with chapter 1.6.
2. For Air Discharge
3. For Contact Discharge

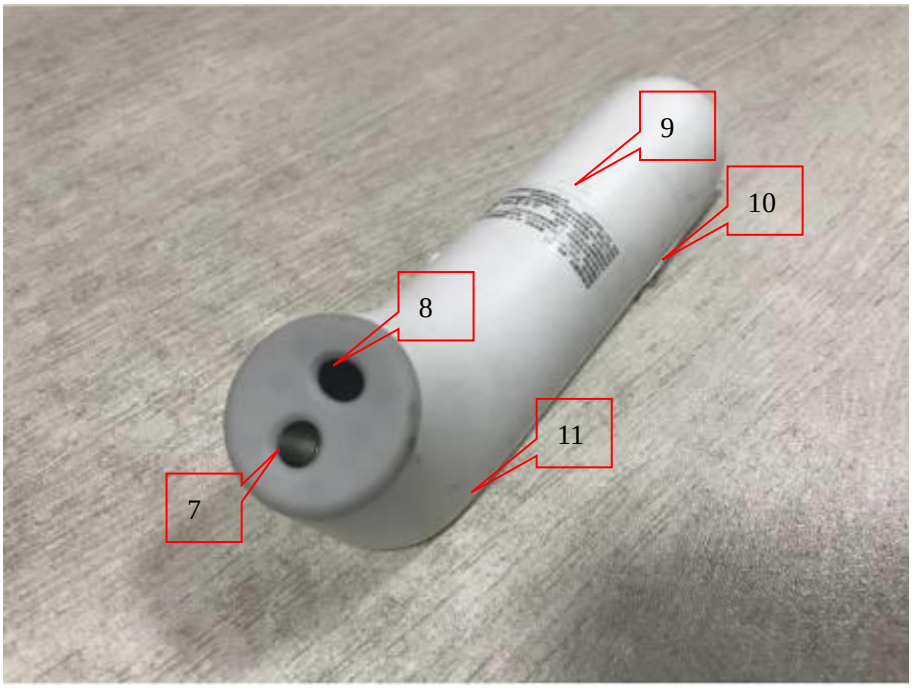
8.5. Test Photograph

Test Mode: Working mode

Description: Electrostatic Discharge Test Setup

Electrostatic Discharge Test Location





9. Radio-frequency Electromagnetic Field

9.1. Limit of Radio-frequency Electromagnetic Field

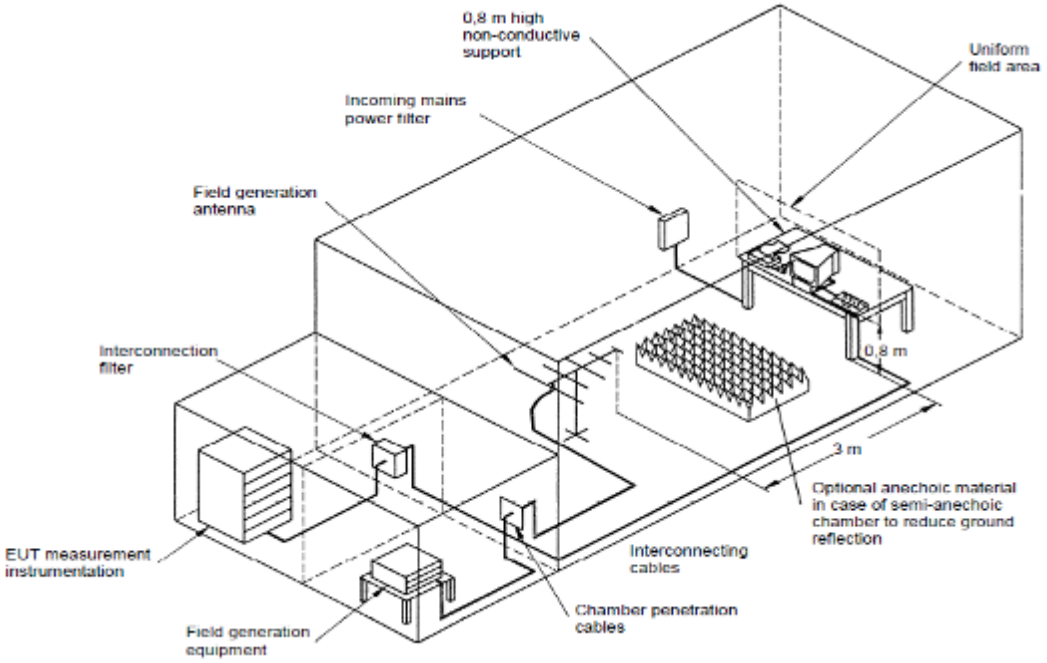
Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Enclosure Port				
	Radiated RF EM fields [a)]	3 V/m [f)] 80 MHz – 2,7 GHz [b)] 80 % AM at 1 kHz [c)]	10 V/m [f)] 80 MHz – 2,7 GHz [b)] 80 % AM at 1 kHz [c)]	Reference Chapter 1.6
a) The interface between the PATIENT physiological signal simulation, if used, and the ME EQUIPMENT or ME SYSTEM shall be located within 0,1 m of the vertical plane of the uniform field area in one orientation of the ME EQUIPMENT or ME SYSTEM. b) ME EQUIPMENT and ME SYSTEMS that intentionally receive RF electromagnetic energy for the purpose of their operation shall be tested at the frequency of reception. Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. This test assesses the BASIC SAFETY and ESSENTIAL PERFORMANCE of an intentional receiver when an ambient signal is in the passband. It is understood that the receiver might not achieve normal reception during the test. c) Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. f) Before modulation is applied.				
	Proximity fields from RF wireless communications equipment	See Table 1		Reference Chapter 1.6

Table 1 -Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment

Test frequency (MHz)	Band [a)] (MHz)	Service [a)]	Modulation [b)]	Maximum power (W)	Distance (m)	TEST LEVEL (V/m)
385	380-390	TETRA 400	Pulse modulation [b)] 18 Hz	1.8	0.3	27
450	430-470	GMRS 460, FRS 460	FM [c)] ± 5 kHz deviation 1 kHz sine	2	0.3	28

710 745 780	704-787	LTE Band 13, 17	Pulse modulation [b)] 217 Hz	0.2	0.3	9
810 870 930	800-960	GSM800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation [b)] 18 Hz	2	0.3	28
1720 1845 1970	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation [b)] 217 Hz	2	0.3	28
2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation [b)] 217 Hz	2	0.3	28
5240 5500 5785	5100-5800	WLAN 802.11 a/n	Pulse modulation [b)] 217 Hz	0.2	0.3	9
NOTE: If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.						
a) For some services, only the uplink frequencies are included. b) The carrier shall be modulated using a 50 % duty cycle square wave signal. c) As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.						

9.2. Test Setup



9.3. Test Procedure

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters. Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

In order to judge the EUT performance, a CCD camera is used to monitor EUT screen.

All the scanning conditions are as follows:

	Condition of Test	Remarks
1.	Field Strength	10V/m
2.	Radiated Signal	AM 80% Modulated with 1kHz
3.	Scanning Frequency	80 - 2700MHz
4	Dwell Time	3 Seconds
5.	Frequency Step Size Δf	1%

9.4. Test Result

Test Site	Semi anechoic chamber	Date of Test	2019/07/10
Product	Infrared Thermometer	Test Engineer	Yuan ZiWen
Temperature	23℃	Relative Humidity	45%RH
Barometric Pressure	101KPa	Test Voltage	DC 3V (Powered by battery)
Note	Working mode		

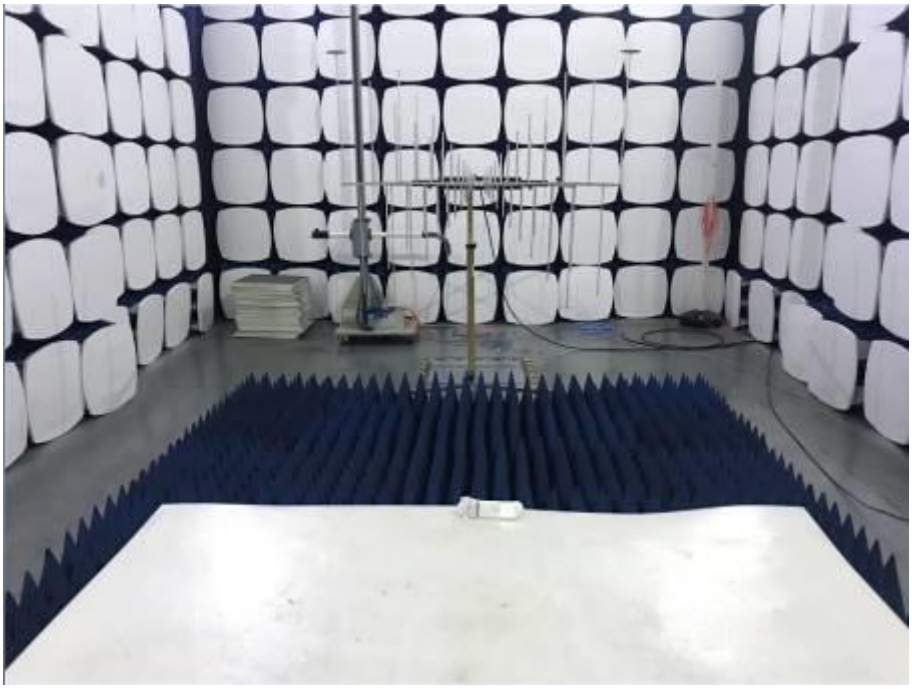
Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Observation	Results
80-2700	Front+ Back+ Left+ Right	H+V	10	Note	Comply
380-390	Front+ Back+ Left+ Right	H+V	27	Note	Comply
430-470	Front+ Back+ Left+ Right	H+V	28	Note	Comply
704-787	Front+ Back+ Left+ Right	H+V	9	Note	Comply
800-960	Front+ Back+ Left+ Right	H+V	28	Note	Comply
1700-1990	Front+ Back+ Left+ Right	H+V	28	Note	Comply
2400-2570	Front+ Back+ Left+ Right	H+V	28	Note	Comply
5100-5800	Front+ Back+ Left+ Right	H+V	9	Note	Comply

Note: There is no any degradation of performance and function, and the test result complies with chapter 1.6.

9.5. Test Photograph

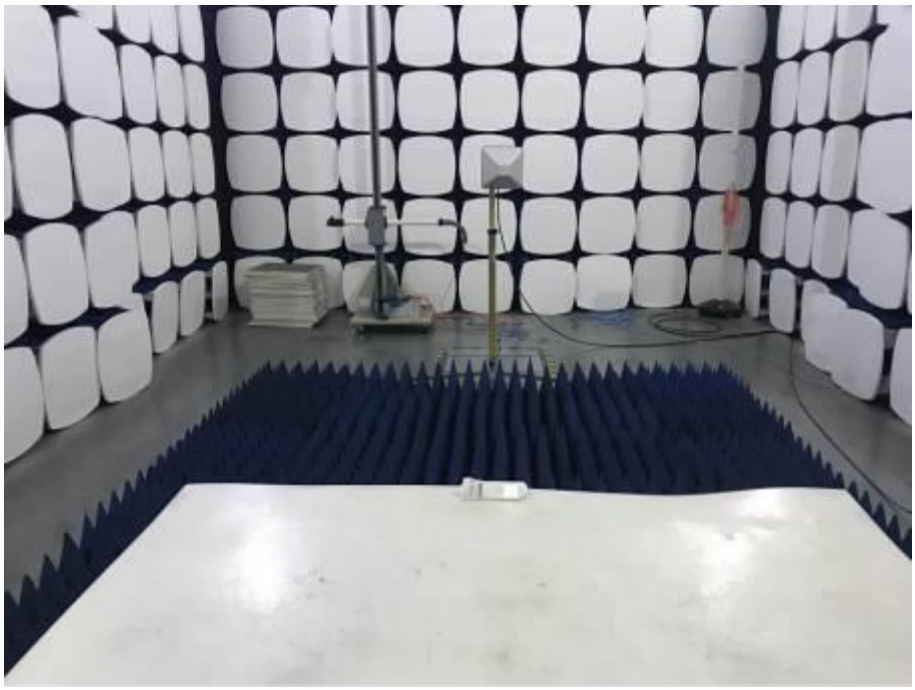
Test Mode: Working mode

Description: Radio-frequency Electromagnetic Field Test Setup Below 1G



Test Mode: Working mode

Description: Radio-frequency Electromagnetic Field Test Setup Above 1G

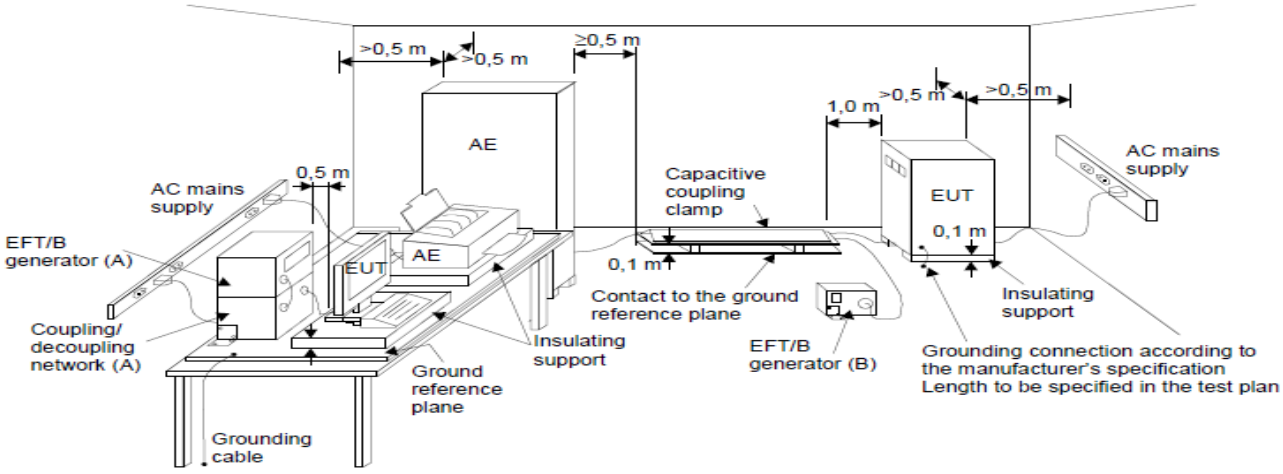


10. Electrical Fast Transients

10.1. Limit of Electrical Fast Transients

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Input a.c. power Port				
Electrical fast transients /bursts a) l) o)		± 2 kV 100 kHz repetition frequency		Reference Chapter 1.6
a) The test may be performed at any one power input voltage within the ME EQUIPMENT or ME SYSTEM RATED voltage range. If the ME EQUIPMENT or ME SYSTEM is tested at one power input voltage, it is not necessary to re-test at additional voltages. l) Direct coupling shall be used. o) Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase and ME EQUIPMENT and ME SYSTEMS with RATED input current greater than 16 A / phase.				
Input d.c. power Port				
Electrical fast transients /bursts a) g)		± 2 kV 100 kHz repetition frequency		Reference Chapter 1.6
a) The test is applicable to all d.c. power PORTS intended to be connected permanently to cables longer than 3 m. g) Direct coupling shall be used.				
Signal input/output parts Port				
Electrical fast transients /bursts b) f)		± 1 kV 100 kHz repetition frequency		Reference Chapter 1.6
b) SIP/SOPS whose maximum cable length is less than 3 m in length are excluded. f) Capacitive coupling shall be used.				

10.2. Test Setup



10.3. Test Procedure

The EUT is placed on a table that is 0.8 meter height. A ground reference plane is placed on the table, and uses a 0.1m insulation between the EUT and ground reference plane.
The minimum area of the ground reference plane is 1m*1m, and 0.65mm thick min, and projected beyond the EUT by at least 0.1m on all sides.

For input AC power ports:

The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal.
Each of the line conductors is impressed with burst noise for 1 minute.
The length of the power lines between the coupling device and the EUT is 0.5m.

For signal ports, telecommunication ports, and control ports:

The EFT interference signal is through a coupling clamp device couples to the signal of the EUT with burst noise for 1 minute.
The length of the signal lines between the coupling device and the EUT is 0.5m.

10.4. Test Result

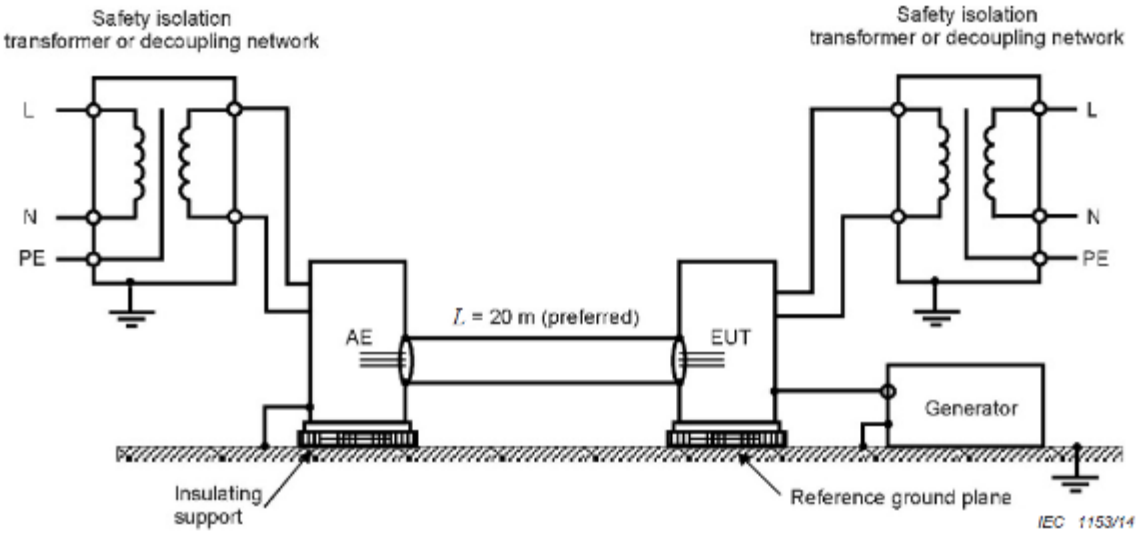
The EUT is not suitable for Electrical Fast Transients.

11. Surges

11.1. Limit of Surges

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Input a.c. power Port				
Surges [a) b) j) o)] Line-to-line		± 0,5 kV, ± 1 kV		Reference Chapter 1.6
Surges [a) b) j) k) o)] Line-to-ground		± 0,5 kV, ± 1 kV, ± 2 kV		
a) The test may be performed at any one power input voltage within the ME EQUIPMENT or ME SYSTEM RATED voltage range. If the ME EQUIPMENT or ME SYSTEM is tested at one power input voltage, it is not necessary to re-test at additional voltages. b) All ME EQUIPMENT and ME SYSTEM cables are attached during the test. j) ME EQUIPMENT and ME SYSTEMS that do not have a surge protection device in the primary power circuit may be tested only at ± 2 kV line(s) to earth and ± 1 kV line(s) to line(s). k) Not applicable to CLASS II ME EQUIPMENT and ME SYSTEMS. o) Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase and ME EQUIPMENT and ME SYSTEMS with RATED input current greater than 16 A / phase.				
Input d.c. power Port				
Surges [a) b) g)] Line-to-line		± 0,5 kV, ± 1 kV		Reference Chapter 1.6
Surges [a) b) g)] Line-to-ground		± 0,5 kV, ± 1 kV, ± 2 kV		
a) The test is applicable to all d.c. power PORTS intended to be connected permanently to cables longer than 3 m. b) All ME EQUIPMENT and ME SYSTEM cables shall be attached during the test g) Direct coupling shall be used.				
Signal input/output parts Port				
Surges Line-to-ground [a)]		± 2 kV		Reference Chapter 1.6
a) This test applies only to output lines intended to connect directly to outdoor cables.				

11.2. Test Setup



11.3. Test Procedure

The EUT is placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m minimum and 0.65mm thick minimum and projected beyond the EUT by at least 0.1m on all sides. The length of power cord between the coupling device and the EUT shall be 2m or less.

For input AC power ports:

The EUT is connected to the power mains through a coupling device that directly couples the surge interference signal.

The surge noise shall be applied synchronized to the voltage phase at 0^0, 90^0, 180^0, 270^0 and the peak value of the AC voltage wave. (Positive and negative)

Each of Line to Earth and Line to Line is impressed with a sequence of five surge voltages with interval of 1 minute.

For telecommunication ports:

The signal line of EUT is connected to coupling and decoupling network that directly couples the surge interference signal.

Only Line to ground is impressed with a sequence of five surge voltages with interval of 1 minute.

11.4. Test Result

The EUT is not suitable for Surges.

12. Radio-frequency Common Mode

12.1. Limit of Radio-frequency Common Mode

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Input a.c. power Port				
	Conducted disturbances induced by RF fields c) d) o)	3 V m) 0,15 MHz – 80 MHz 6 V m) in ISM bands between 0,15 MHz and 80 MHz n) 80 % AM at 1 kHz e)	3 V m) 0,15 MHz – 80 MHz 6 V m) in ISM and amateur radio bands between 0,15 MHz and 80 MHz n) 80 % AM at 1 kHz e)	Reference Chapter 1.6
c) Calibration for current injection clamps shall be performed in a 150 Ω system. d) If the frequency stepping skips over an ISM or amateur band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range. e) Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. m) r.m.s., before modulation is applied. n) The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz. o) Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase and ME EQUIPMENT and ME SYSTEMS with RATED input current greater than 16 A / phase.				
Input d.c. power Port				
	Conducted disturbances induced by RF fields a) c) d) i)	3 V h) 0,15 MHz – 80 MHz 6 V h) in ISM bands between 0,15 MHz and 80 MHz j) 80 % AM at 1 kHz e)	3 V h) 0,15 MHz – 80 MHz 6 V h) in ISM and amateur radio bands between 0,15 MHz and 80 MHz j) 80 % AM at 1 kHz e)	Reference Chapter 1.6

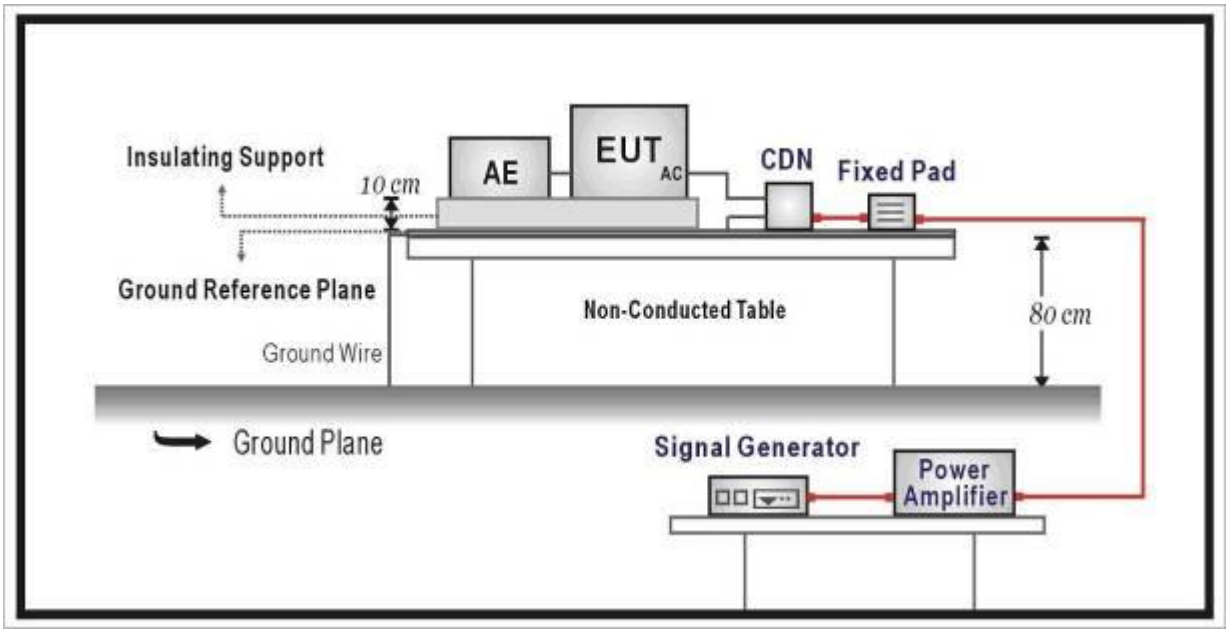
a) The test is applicable to all d.c. power PORTS intended to be connected permanently to cables longer than 3 m. c) I NTERNALLY POWERED ME EQUIPMENT is exempt from this test if it cannot be used during battery charging, is of less than 0,4 m maximum dimension including the maximum length of all cables specified and has no connection to earth, telecommunications systems, any other equipment or a PATIENT. d) The test may be performed with the ME EQUIPMENT or ME SYSTEM powered at any one of its NOMINAL input voltages. e) Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. including ambulances fitted with 12 V electrical systems or commercial vehicles including ambulances fitted with 24 V electrical systems h) r.m.s., before modulation is applied. i) If the frequency stepping skips over an ISM or amateur radio band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range. j) The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz,21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.		
PATIENT coupling Port			
Conducted disturbances induced by RF fields [a)]	3 V [b)] 0,15 MHz – 80 MHz 6 V [b)] in ISM bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	3 V [b)] 0,15 MHz – 80 MHz 6 V [b)] in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	Reference Chapter 1.6

a) The following apply: – All PATIENT-COUPLED cables shall be tested, either individually or bundled – PATIENT-COUPLED cables shall be tested using a current clamp unless a current clamp is not suitable. In cases were a current clamp is not suitable, an EM clamp shall be used. – No intentional decoupling device shall be used between the injection point and the PATIENT COUPLING POINT in any case. – Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. – Tubes that are intentionally filled with conductive liquids and intended to be connected to a PATIENT shall be considered to be PATIENT-COUPLED cables. – If the frequency stepping skips over an ISM or amateur radio band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range. – The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz. b) r.m.s., before modulation is applied			
Signal input/output parts Port			
Conducted disturbances induced by RF fields [b) d) g)]	3 V [h)] 0,15 MHz – 80 MHz 6 V [h)] in ISM bands between 0,15 MHz and 80 MHz [i)] 80 % AM at 1 kHz [c)]	3 V [h)] 0,15 MHz – 80 MHz 6 V [h)] in ISM and amateur radio bands between 0,15 MHz and 80 MHz [i)] 80 % AM at 1 kHz [c)]	Reference Chapter 1.6

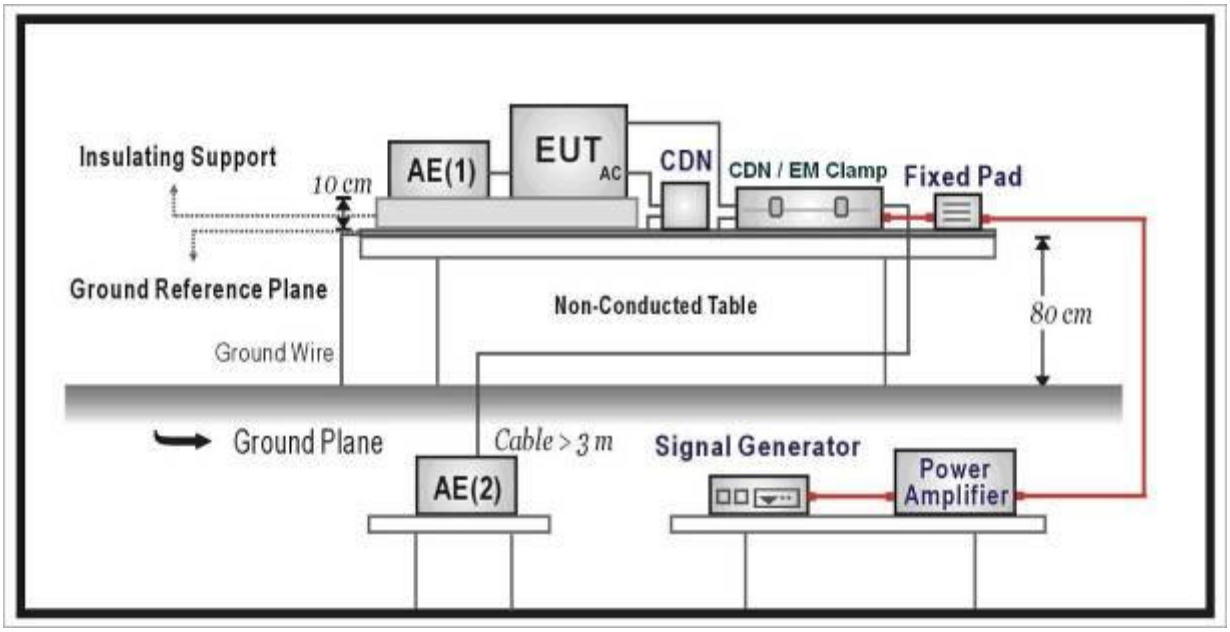
b) SIP/SOPS whose maximum cable length is less than 3 m in length are excluded.
c) Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS.
d) Calibration for current injection clamps shall be performed in a 150 Ω system.
g) If the frequency stepping skips over an ISM or amateur radio band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range.
h) r.m.s., before modulation is applied.
i) The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,1 7 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

12.2. Test Setup

CDN Test Setup



EM Clamp Test Setup


Insulating Support
10 cm
AE(1)
EUT
AC
CDN
CDN / EM Clamp
Fixed Pad
Ground Reference Plane
Non-Conducted Table
80 cm
Ground Wire
Ground Plane
Cable > 3 m
Signal Generator
AE(2)
Power
Amplifier

12.3. Test Procedure

The EUT is placed on a table that is 0.8 meter height, and a ground reference plane on the table, EUT is placed upon table and use 0.1m insulation between the EUT and ground reference plane.

For input AC power ports:

The EUT is connected to the power mains through a coupling and decoupling networks for power supply lines. And directly couples the disturbances signal into EUT.

For signal ports, telecommunication ports, and control ports:

The disturbance signal is through a coupling and decoupling networks (CDN) or EM-clamp device couples to the signal and telecommunication lines of the EUT.

	Condition of Test	Remarks
1.	Field Strength	3V
2.	Radiated Signal	AM 80% Modulated with 1kHz
3.	Scanning Frequency	0.15 - 80MHz
4	Dwell Time	3 Seconds
5.	Frequency Step Size Δf	1%

12.4. Test Result

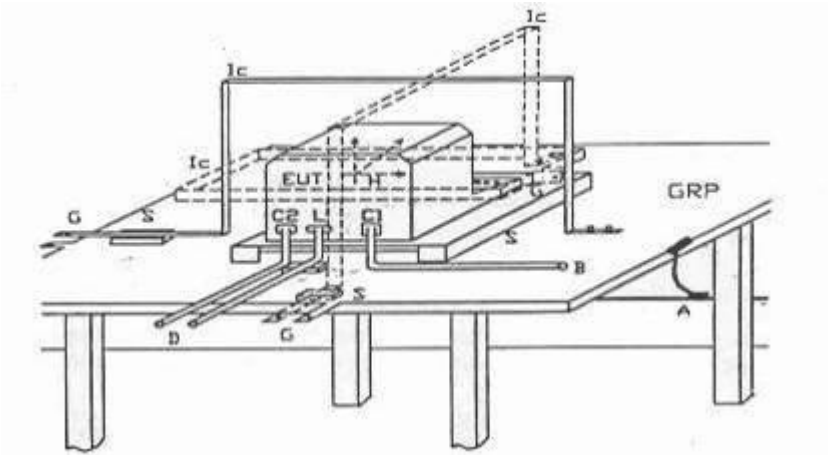
The EUT is not suitable for Radio-frequency Common Mode.

13. Power-frequency Magnetic Field

13.1. Limit of Power-frequency Magnetic Field

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
ENCLOSURE Port				
RATED power frequency magnetic fields d) e)		30 A/m g) 50 Hz or 60 Hz		Reference Chapter 1.6
d) Applies only to ME EQUIPMENT and ME SYSTEMS with magnetically sensitive components or circuitry. e) During the test, the ME EQUIPMENT or ME SYSTEM may be powered at any NOMINAL input voltage, but with the same frequency as the test signal (see Table 1). g) This test level assumes a minimum distance between the ME EQUIPMENT or ME SYSTEM and sources of power frequency magnetic field of at least 15 cm. If the RISK ANALYSIS shows that the ME EQUIPMENT or ME SYSTEM will be used closer than 15 cm to sources of power frequency magnetic field, the IMMUNITY TEST LEVEL shall be adjusted as appropriate for the minimum expected distance.				

13.2. Test Setup



GRP: Ground plane
A: Safety earth
S: Insulating support
EUT: Equipment under test
Lc: Induction coil
E: Earth terminal
C1: Power supply circuit
C2: Signal circuit
L: Communication line
B: To power supply source
D: To signal source, simulator
G: To the test generator

13.3. Test Procedure

The EUT is placed on a table which is 0.8 meter above a metal ground plane measured at least 1m*1m minimum. The test magnetic field shall be placed at central of the induction coil.
The test magnetic Field shall be applied 10 minutes by the immersion method to the EUT, and the induction coil shall be rotated by 90° in order to expose the EUT to the test field with different orientation (X, Y, Z Orientations).

13.4. Test Result

Test Site	Immunity 1 chamber	Date of Test	2019/07/10
Product	Infrared Thermometer	Test Engineer	Yuan ZiWen
Temperature	23℃	Relative Humidity	45%RH
Barometric Pressure	101kPa	Test Voltage	DC 3V (Powered by battery)
Note	Working mode		

Test Coil Position	Frequency (Hz)	Magnetic Strength (A/m)	Observation	Test Result
X Axis	50	30	Note	Comply
Y Axis	50	30	Note	Comply
Z Axis	50	30	Note	Comply
X Axis	60	30	Note	Comply
Y Axis	60	30	Note	Comply
Z Axis	60	30	Note	Comply

Note: There is no any degradation of performance and function, and the test result complies with chapter 1.6.

13.5. Test Photograph

Test Mode: Working mode

Description: Power-frequency Magnetic Field Test Setup

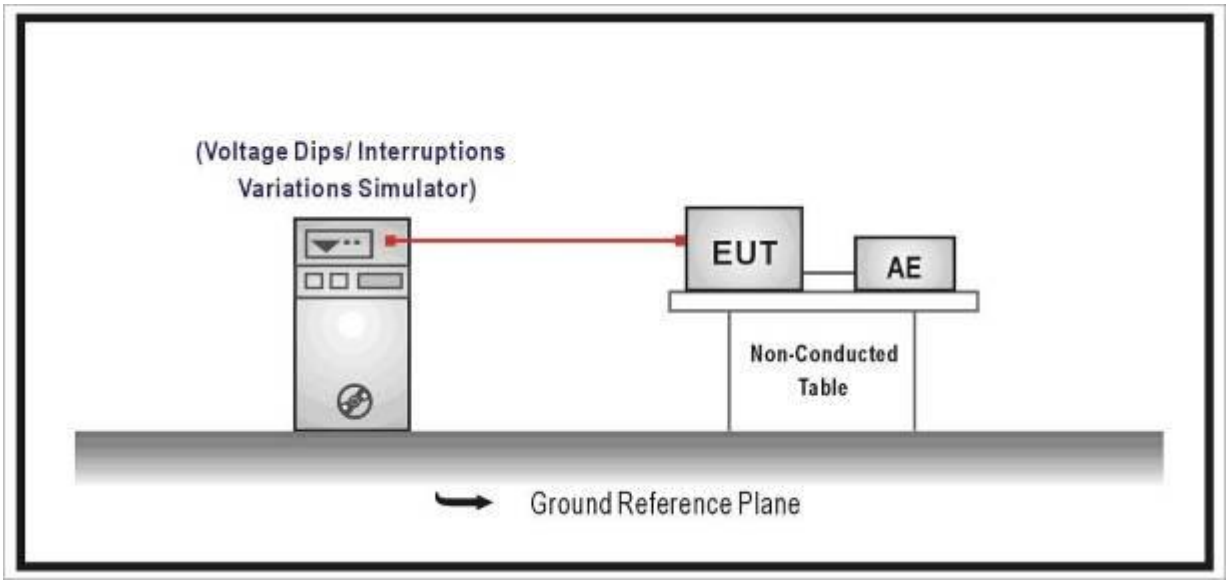
14. Voltage Dips and Interruptions

14.1. Limit of Voltage Dips and Interruptions

Item	Environmental Phenomena	Test Specification		Compliance Criteria
		Professional healthcare facility environment	Home healthcare environment	
Input a.c. power Port				
Voltage dips f) p) r)		0 % UT; 0,5 cycle g) At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° q) 0 % UT; 1 cycle and 70 % UT; 25/30 cycles h) Single phase: at 0°		Reference Chapter 1.6
Voltage interruptions f) i) o) r)		0 % UT; 250/300 cycle h)		

f) ME EQUIPMENT and ME SYSTEMS with a d.c. power input intended for use with a.c. -to-d.c. converters shall be tested using a converter that meets the specifications of the MANUFACTURER of the ME EQUIPMENT or ME SYSTEM. The IMMUNITY TEST LEVELS are applied to the a.c. power input of the converter.
g) Applicable only to ME EQUIPMENT and ME SYSTEMS connected to single-phase a.c. mains.
h) E.g. 10/12 means 10 periods at 50 Hz or 12 periods at 60 Hz.
i) ME EQUIPMENT and ME SYSTEMS with RATED input current greater than 16 A / phase shall be interrupted once for 250/300 cycles at any angle and at all phases at the same time (if applicable). ME EQUIPMENT and ME SYSTEMS with battery backup shall resume line power operation after the test. For ME EQUIPMENT and ME SYSTEMS with RATED input current not exceeding 16 A, all phases shall be interrupted simultaneously.
o) Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase and ME EQUIPMENT and ME SYSTEMS with RATED input current greater than 16 A / phase.
p) Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase.
q) At some phase angles, applying this test to ME EQUIPMENT with transformer mains power input might cause an overcurrent protection device to open. This can occur due to magnetic flux saturation of the transformer core after the voltage dip. If this occurs, the ME EQUIPMENT or ME SYSTEM shall provide BASIC SAFETY during and after the test.
r) For ME EQUIPMENT and ME SYSTEMS that have multiple voltage settings or auto ranging voltage capability, the test shall be performed at the minimum and maximum RATED input voltage. M E EQUIPMENT and ME SYSTEMS with a RATED input voltage range of less than 25 % of the highest RATED input voltage shall be tested at one RATED input voltage within the range. See Table 1 Note c) for examples calculations.

14.2. Test Setup



14.3. Test Procedure

The EUT is placed on a table which is 0.8 meter above a metal ground plane measured 1m*1m minimum, and 0.65mm thick minimum, and projected beyond the EUT by at least 0.1m on all sides.
The power cord shall be used the shortest power cord as specified by the manufacturer.
For Voltage dips and interruptions test:
The selection of test voltage is based on the rated power range. If the operation range is large than 20% of lower power range, both end of specified voltage shall be tested. Otherwise, the typical voltage specification is selected as test voltage.
The EUT is connected to the power mains through a coupling device that directly couples to the voltage dips and interruption generator.

14.4. Test Result

The EUT is not suitable for Voltage Dips and Interruptions.

15. Uncertainty Measurement

Conducted Emission -
The maximum measurement uncertainty is evaluated as: U = 2.98dB .(k=2)
Radiated Disturbance –
The maximum measurement uncertainty is evaluated as: U = 4.5dB. (k=2)
Harmonic Current Emissions -
The maximum measurement uncertainty is evaluated as ± 0.25%.
Voltage Fluctuation and Flicker -
The maximum measurement uncertainty is evaluated as dc and dmax: ± 0.09%, Pst and Plt: ± 1.6%, d(t): ± 1%.
Electrostatic discharge -
The maximum measurement uncertainty is evaluated as Voltage: ± 1.25%, Time: ± 10%.
Radio-frequency electromagnetic field -
The maximum measurement uncertainty is evaluated as1.39dB.(k=2)
Fast transients -
The maximum measurement uncertainty is evaluated as Voltage: ± 3%, , Time: ± 10%.
Surges -
The maximum measurement uncertainty is evaluated as Voltage: ± 3%, , Time: ± 10%.
Radio-frequency continuous conducted -
The maximum measurement uncertainty is evaluated as CDN: 3.12dB. (k=2)
Power-frequency magnetic field -
The maximum measurement uncertainty is evaluated as ± 3.1%.
Voltage dips and interruptions -
The maximum measurement uncertainty is evaluated as Voltage: ± 3%, Time: ± 0.6%.

16. List of Measuring Instrument

Conducted Emission -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Radiated Disturbance -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Test Receiver	R&S	ESCI 7	A141202117	1	2020.03.02
Antenna	R&S	VULB 9160	A141202112	3	2020.03.01

Harmonic Current Emissions -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Voltage Fluctuation and Flicker -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Electrostatic Discharge -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
ESD Generators	Heafely	ONYX 16	D180700234	1	2020.05.18

Radio-Frequency Electromagnetic Field -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Signal Generator	KEYSIGHT	N5171B-506	A180102819-7	1	2020.03.02
Power Meter	KEYSIGHT	N1914A	A180102819-1	1	2020.03.02
Power Amplifier	AR	500W1000B	A180102819-4	1	2020.03.02
Power Amplifier	AR	100S1G6	A180102819-5	1	2020.03.02
Power Probe	KEYSIGHT	E9304A	A180102819-8	1	2020.03.02
Power Probe	KEYSIGHT	E9304A	A180102819-9	1	2020.03.02
Transmitting Antenna	SCHWARZBECK	STLP9128E	A180102819-11	1	2020.01.25
Transmitting Antenna	SCHWARZBECK	STLP 9149	A180102819-12	1	2019.09.18
Directional Coupler	AR	C10762	A180102819-3	1	2019.09.18

Fast Transients -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Surges -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Radio-Frequency Common Mode -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Power-Frequency Magnetic Field -

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
PFM Simulator	3ctest	MFS 1200	A150602341	1	2019.11.24
PFM Coil	3ctest	TXC30 1200A	A150602342	1	2019.11.24

Voltage Dips and Interruptions -

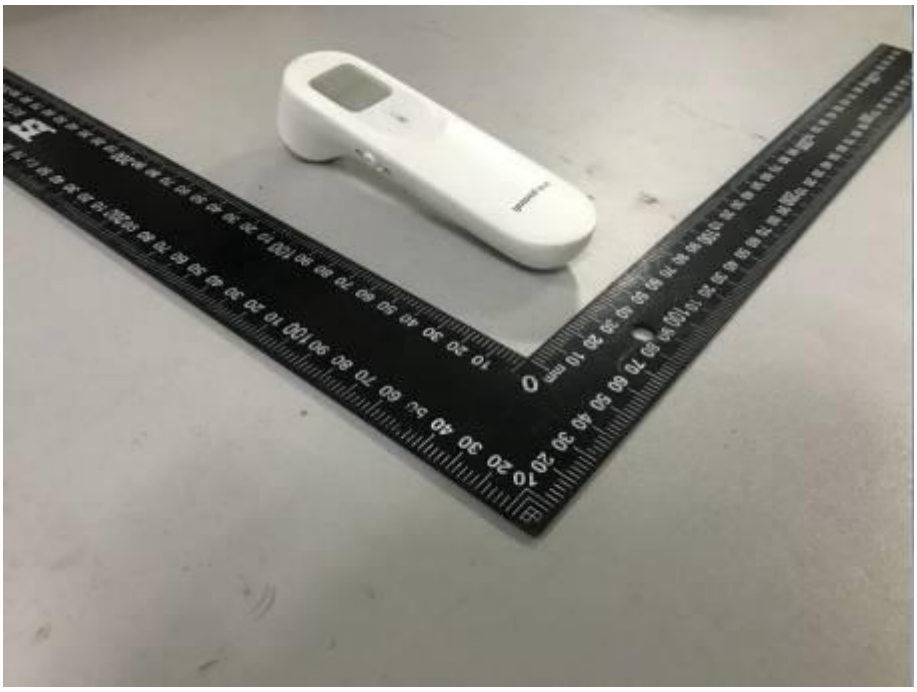
Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
/	/	/	/	/	/

Software	Version	Function
/	/	/

17. Appendix - EUT Photograph

1. EUT Photo

2. EUT Photo



3. EUT Photo

The End