Prüfbericht-Nr.: *Test Report No.:*	**50349076 001**	**Auftrags-Nr.:** *Order No.:*	**244188289**	**Seite 1 von 26** *Page 1 of 26*
Kunden-Referenz-Nr.: *Client Reference No.:*	**2061587**	**Auftragsdatum:** *Order date.:*	**22.11.2019**	
Auftraggeber: *Client:*	**Bestway (Hong Kong) International Ltd.** Suite 713, 7/Floor, East Wing, Tsim Sha Tsui Centre, 66 Mody Road, Kowloon, Hong Kong			
Prüfgegenstand: *Test item:*	**SPA**			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**S100201, S100202, S100203**			
Auftrags-Inhalt: *Order content:*	**EMC test**			
Prüfgrundlage: *Test specification:*	**EN 301 489-1 V2.1.1:2017**	**EN 301 489-3 V2.1.1:2019**		
Wareneingangsdatum: *Date of receipt:*	**31.12.2019**			
Prüfmuster-Nr.: *Test sample No.:*	**A00103341-001**			
Prüfzeitraum: *Testing period:*	**Refer to test report**			
Ort der Prüfung: *Place of testing:*	**EMC laboratory**			
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Shanghai) Co., Ltd.**			
Prüfergebnis*: *Test result*:*	**Pass**			

geprüft von / *tested by:*			**kontrolliert von /** *reviewed by:*		
15.04.2020	Liky Zhu/Senior project engineer		15.04.2020	Jiayi Zhou/Senior manager	
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges / *Other:*

Refer to clause 2.2 for further information.

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*
Prüfmuster vollständig und unbeschädigt
Test item complete and undamaged

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhalt
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	1 = very good	2 = good	3 = satisfactory	4 = sufficient	5 = poor
	P(ass) = passed a.m. test specifications(s)		F(ail) = failed a.m. test specifications(s)	N/A = not applicable	N/T = not tested

TEST SUMMARY

4.1.1 HARMONICS ON AC MAINS
Result:
Passed

4.1.2 VOLTAGE CHANGES, VOLTAGE FLUCTUATIONS AND FLICKER ON AC MAINS
Result:
Passed

4.1.3 MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE
Result:
Passed

4.2.1 RADIATED EMISSION
Result:
N/A

5.1.1 ELECTROSTATIC DISCHARGE
Result:
Passed

5.1.2 RF ELECTROMAGNETIC FIELD IMMUNITY TEST
Result:
Passed

5.2.1 FAST TRANSIENTS
Result:
Passed

5.2.2 INJECTED CURRENT
Result:
Passed

5.2.3 SURGES TO AC POWER PORT
Result:
Passed

5.2.4 VOLTAGE DIPS AND INTERRUPTIONS TO AC POWER PORT
Result:
Passed

Contents

1 Test Sites

1.1 Test Facilities

Laboratory: TÜV Rheinland (Shanghai) Co., Ltd.
Address: No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China

The used test equipment is in accordance with CISPR 16-1 series standards for measurement of radio interference.

Refer to clause 7 for test and measurement instruments.

2 General Product Information

2.1 Product Function and Intended Use

The EUT (equipment under test) is an ordinary SPA. For the further information, refer to the user's manual.

2.2 Ratings and System Details

System input	:	AC 220-240 V, 50 Hz DC 6 V for remote control
Rated input	:	Heating: 2050 W; Heating + Bubble: 1850 W (for all models)
Operational Frequency Band	:	433.05-434.79 MHz
Protection class	:	I

2.3 Independent Operation Modes

The basic operation modes are:
A. Radio standby
B. Controller transmit
C. Power off

2.4 Noise Generating and Noise Suppressing Parts

Refer to the circuit diagram for further information.

2.5 Submitted Documents

Circuit diagram and label.

3 Test Set-up and Operation Modes

3.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible emission level. The test conditions were adapted accordingly in reference to the instructions for use.

Refer to the related paragraph of this report.

Immunity: The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test conditions were adapted accordingly in reference to the instructions for use.

Refer to the related paragraph of this report.

3.2 Physical Configuration for Testing

Refer to the related paragraph of this report.

3.3 Test Operation and Test Software

Refer to the related paragraph of this report. No test software was used.

3.4 Special Accessories and Auxiliary Equipment

None.

3.5 Countermeasures to achieve EMC Compliance

Refer to circuit diagram for further information.

4 Test Results EMISSION

4.1 Emission in the Frequency Range up to 30 MHz

4.1.1 Harmonics on AC mains

Result:	**Passed**

Date of testing	:	06.03.2020
Test procedure	:	EN 61000-3-2:2006+A1+A2
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 8.5
Test duration	:	2.5 min
Harmonic order	:	2 – 40th
Test voltage	:	AC 230 V, 50 Hz
Ambient condition	:	Temperature: 21.2 ºC; Relative humidity: 49.3 %
Operation mode	:	Continuously working

Following are the measurement results, which were obtained via an automatic measurement system.

Table 1: **Harmonic currents measurement result**

Equipment category: Class A; Test voltage: AC 229.456 V, 50 Hz
Fundamental current I1: 8.018 A; Power factor: 0.986; Active input power: 1834.2 W.

Harmonic order	**Measured result** (A)	**Limits** (A)	**Harms(max)** (A)	**150%Limit** (A)	**Result**
2	0.007	1.080	0.012	1.620	Pass
3	1.215	2.300	1.226	3.450	Pass
4	0.006	0.430	0.015	0.645	Pass
5	0.041	1.140	0.047	1.710	Pass
6	0.006	0.300	0.012	0.450	Pass
7	0.050	0.770	0.054	1.155	Pass
8	0.012	0.230	0.018	0.345	Pass
9	0.011	0.400	0.014	0.600	Pass
10	0.011	0.184	0.015	0.276	Pass
11	0.017	0.330	0.018	0.495	Pass
12	0.007	0.153	0.011	0.230	Pass
13	0.007	0.210	0.009	0.315	Pass
14	0.014	0.131	0.016	0.197	Pass
15	0.011	0.150	0.014	0.225	Pass
16	0.053	0.115	0.086	0.173	Pass
17	0.010	0.132	0.023	0.199	Pass
18	0.048	0.102	0.087	0.153	Pass
19	0.009	0.118	0.021	0.178	Pass
20	0.013	0.092	0.015	0.138	Pass
21	0.005	0.107	0.008	0.161	Pass
22	0.005	0.084	0.008	0.125	Pass
23	0.005	0.098	0.007	0.147	Pass
24	0.004	0.077	0.009	0.115	Pass
25	0.005	0.090	0.011	0.135	Pass
26	0.004	0.071	0.007	0.106	Pass
27	0.005	0.083	0.012	0.125	Pass
28	0.003	0.066	0.007	0.099	Pass
29	0.003	0.078	0.006	0.116	Pass
30	0.003	0.061	0.005	0.092	Pass
31	0.003	0.073	0.005	0.109	Pass
32	0.005	0.058	0.006	0.086	Pass
33	0.003	0.068	0.006	0.102	Pass
34	0.014	0.054	0.019	0.081	Pass
35	0.003	0.064	0.007	0.096	Pass
36	0.008	0.051	0.025	0.077	Pass
37	0.003	0.061	0.005	0.091	Pass
38	0.005	0.048	0.006	0.073	Pass
39	0.002	0.058	0.004	0.087	Pass
40	0.002	0.046	0.005	0.069	Pass

4.1.2 Voltage changes, voltage fluctuations and flicker on AC mains

Result:	**Passed**

Date of testing : 06.03.2020
Test procedure : EN 61000-3-3:2013
Reference clause : EN 301 489-1 V2.1.1:2017, clause 8.6
Ambient condition : Temperature: 21.2 ºC; Relative humidity: 49.3 %
Test voltage : AC 230 V, 50 Hz
Operation mode : Continuously working

According to the characteristics of the sample, as specified by clause 5 of the basic standard, 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;
- T_{max}, the accumulated time value of d(t) with a deviation exceeding 3.3 % during a single voltage change at the EUT terminals, shall not exceed 500 ms;
- the relative steady-state voltage change d_c, shall not exceed 3.3 %;
- the maximum relative voltage change d_{max}, shall not exceed 6 %.

Table 2: Voltage fluctuations and flicker measurement results

	d_c	d_{max} (average)	T_{max}	P_{st}	P_{lt}
Limits	3.3 %	6 %	500 ms	1.0	0.65
Result	1.49 %	3.09 %	0 ms	0.416	0.219

4.1.3 Mains Terminal Continuous Disturbance Voltage

Result:	**Passed**

Date of testing	:	05.03.2020
Test procedure	:	EN 55032:2015
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 8.4
Product category	:	Class B
Frequency range	:	0.15 – 30 MHz
Limits	:	Table A.10 of EN 55032:2015
Kind of test site	:	Shielded room
Ambient condition	:	Temperature: 19.7 ºC; Relative humidity: 47.2 %
Expanded measurement uncertainty (k=2)	:	3.39 dB

Test Setup

Test voltage	:	AC 230 V, 50 Hz
Operation condition	:	Continuously work with water as load
Artificial hand	:	N/A
Earthing	:	Earthed through power cord (as class I equipment)

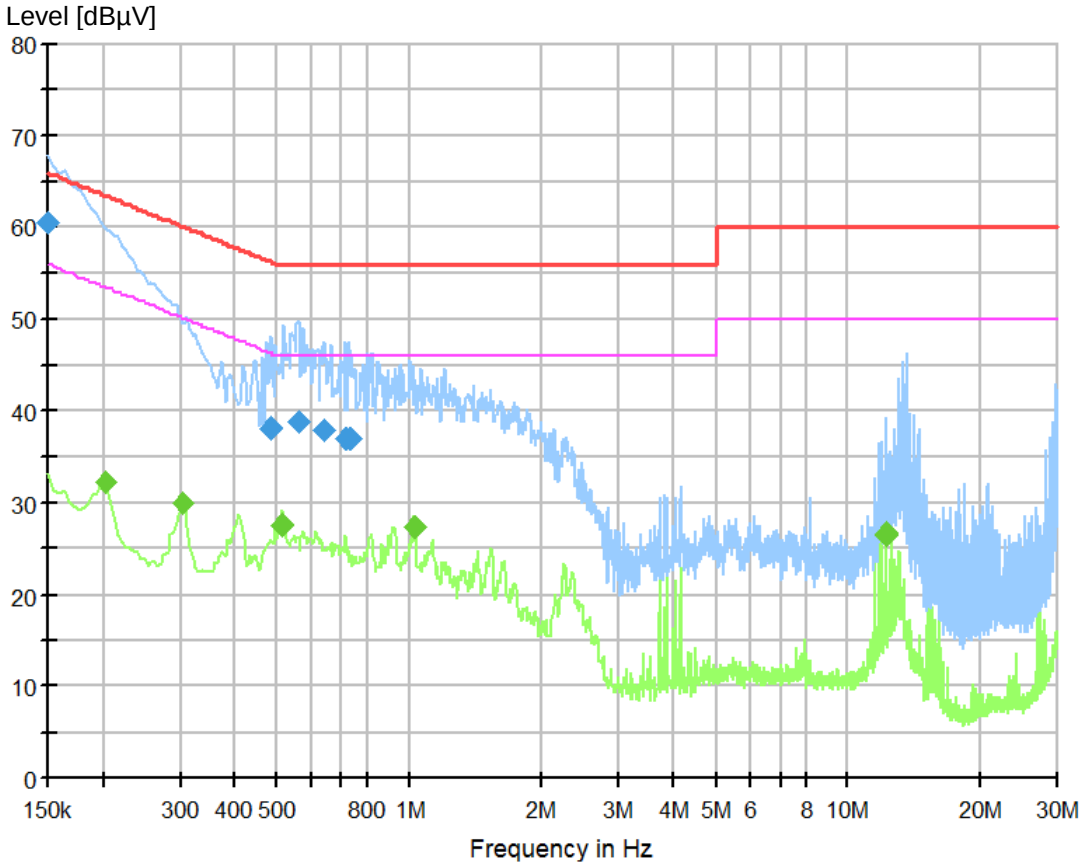
The measurement equipment like test receivers, quasi-peak detector and Artificial Mains Network (AMN) are in compliance with CISPR 16-1 series standards. The tested object was operated under its rated voltage and its rated frequency.

Furthermore an internal calibration with the test receiver was conducted prior to each measurement.

The tested object was placed on a wooden support above reference ground plane. The EUT was set 0.8m away from the AMN. The cord longer than necessary to be connected to the AMN was folded forth and back parallel so as to form a bundle with a length between 0.3m and 0.4m.

The following figures and tables were those measured by an automatic measuring system. Both Quasi-Peak and Average Value were measured. Quasi-Peak and Average Value were measured and listed respectively where they had a maximum in previous scanning survey. In the Figures, "◆" means Quasi-Peak Value and "◆" means Average Value which was measured in final measurement.

Figure 1: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L



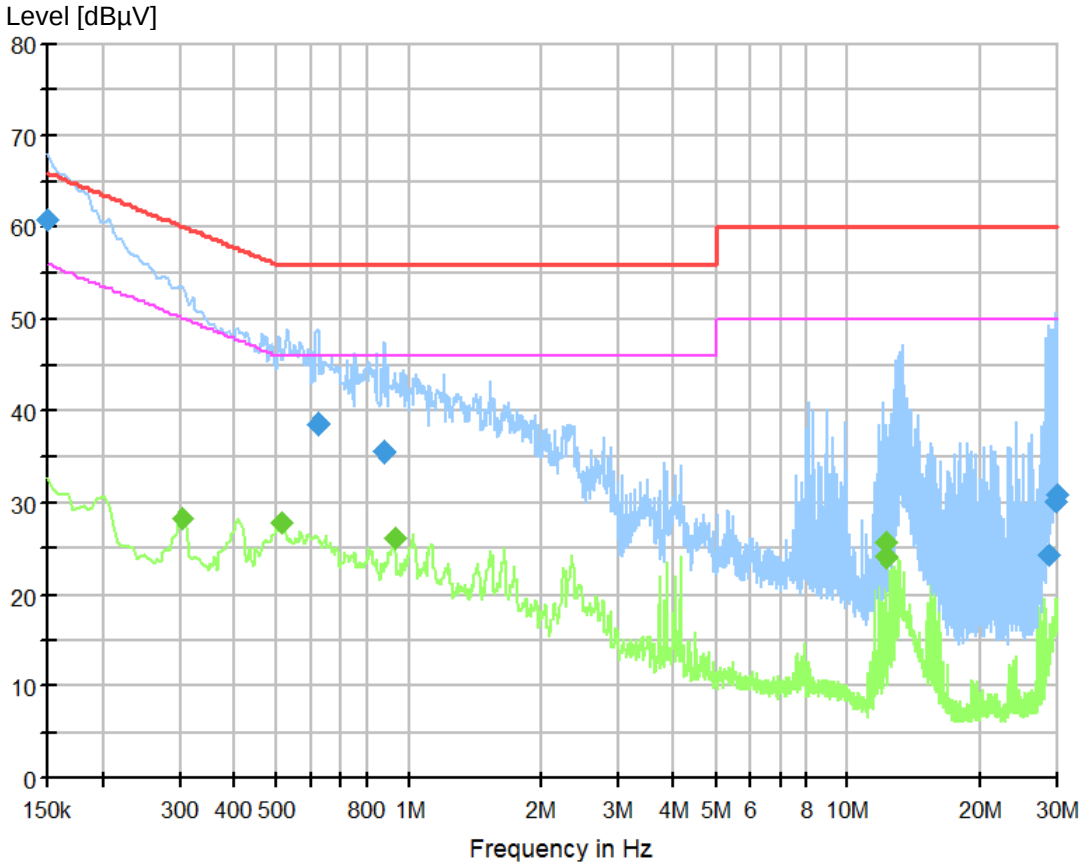
Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	60.67	66.00	5.33	1000.0	9.000	L1	10.4
0.483000	38.03	56.29	18.25	1000.0	9.000	L1	10.4
0.559500	38.78	56.00	17.22	1000.0	9.000	L1	10.4
0.640500	37.85	56.00	18.15	1000.0	9.000	L1	10.4
0.717000	37.07	56.00	18.93	1000.0	9.000	L1	10.4
0.730500	36.91	56.00	19.09	1000.0	9.000	L1	10.4

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.204000	32.25	53.45	21.20	1000.0	9.000	L1	10.4
0.303000	29.85	50.16	20.31	1000.0	9.000	L1	10.4
0.510000	27.66	46.00	18.34	1000.0	9.000	L1	10.4
1.023000	27.38	46.00	18.62	1000.0	9.000	L1	10.5
12.160500	26.57	50.00	23.43	1000.0	9.000	L1	11.0
12.232500	26.54	50.00	23.46	1000.0	9.000	L1	11.0

Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	60.73	66.00	5.27	1000.0	9.000	N	10.4
0.618000	38.68	56.00	17.32	1000.0	9.000	N	10.5
0.879000	35.54	56.00	20.46	1000.0	9.000	N	10.5
28.554000	24.34	60.00	35.66	1000.0	9.000	N	11.8
29.634000	30.12	60.00	29.88	1000.0	9.000	N	11.9
29.913000	30.84	60.00	29.16	1000.0	9.000	N	11.9

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.303000	28.34	50.16	21.82	1000.0	9.000	N	10.4
0.510000	27.90	46.00	18.10	1000.0	9.000	N	10.4
0.924000	26.27	46.00	19.73	1000.0	9.000	N	10.5
12.160500	25.78	50.00	24.22	1000.0	9.000	N	11.1
12.219000	24.07	50.00	25.93	1000.0	9.000	N	11.1
12.232500	25.62	50.00	24.38	1000.0	9.000	N	11.1

4.2 Emission in the Frequency Range above 30 MHz

4.2.1 Radiated emission

Result:	**N/A**

Port : Enclosure of ancillary equipment
Reference clause : EN 301 489-1 V2.1.1:2017, clause 8.2

According to clause 8.2.1 of EN 301 489-1 V2.1.1:2017, this test is only applicable to ancillary equipment not incorporated in the radio equipment and intended to be measured on a stand-alone basis, as declared by the manufacturer. The EUT incorporates 433.05-434.79 MHz wireless transmitter and receiver and is not an ancillary equipment. Therefore, this test is not applicable to EUT.

5 Test Results I M M U N I T Y

During the immunity tests, the EUT was operated under conditions specified by clause 3.1 of this report.

According to EN 301 489-3 V2.1.1:2019 clause 6, following performance criteria apply for the EUT.

6.1 General performance criteria

For the purposes of the present document the provisions of ETSI EN 301 489-1 [1], clause 6, shall not apply.

The performance criteria are used to make an assessment whether a radio equipment passes or fails immunity tests.

6.2 Performance table

In the table below:
• performance criterion A applies for immunity tests with phenomena of a continuous nature;
• performance criterion B applies for immunity tests with phenomena of a transient nature.

NOTE: Whether a phenomenon is considered transient, continuous or otherwise is indicated in the test procedures for the phenomenon in ETSI EN 301 489-1 [1], clause 9.

Table 2: Performance Requirements

Criterion	During test	After test
A	Operate as intended No loss of function No unintentional responses	Operate as intended No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May show loss of function No unintentional responses	Operate as intended Lost function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions

Where "operate as intended" or "no loss of function" is specified, the EUT shall demonstrate correct functioning as described in clause 5.

Where the EUT has more than one mode of operation (see clause 4.5.2), an unplanned transition from one mode to another is considered as an unintentional response. The EUT shall be tested in sufficient modes to confirm there are no such unintentional responses.

Date of testing: 06.03.2020

Room Temperature: 19.4-20.6 °C
Relative Humidity: 46.7-51.2 %

5.1 Enclosure

5.1.1 Electrostatic Discharge

Result:	**Passed**

During the test, the EUT was placed on 0.8 m high wooden table above the ground plane. The minimum distance between the EUT and all other conductive structures except the ground plane beneath the EUT is more than 0.5 m. The size of the reference ground plane is more than 2 m by 2 m.

A vertical coupling plane of dimensions 0.5 m x 0.5 m is placed parallel to and positioned at a distance of 0.1 m from the EUT.

Test procedure	:	EN 61000-4-2:2009
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 9.3 EN 301 489-3 V2.1.1:2019, clause 7.3
Test level	:	±4.0 kV contact discharge; ±2.0 kV, ±4.0 kV ±8.0 kV air discharge
Polarity	:	Positive / Negative
Number of discharges	:	≥10 at each point
Input voltage	:	AC 230 V, 50 Hz
Atmospheric pressure	:	101.3 kPa
Operation mode	:	Continuously working by WIFI control
Performance criteria	:	B

Table 3: Electrostatic discharge immunity test results

Position	Kind of Discharge	Result	Remarks
Enclosure (non-metal)	Air discharge ±2 kV, ±4 kV, ±8 kV	Pass	During the test, the EUT can operate as intended.
Button	Air discharge ±2 kV, ±4 kV, ±8 kV	Pass	
Seam	Air discharge ±2 kV, ±4 kV, ±8 kV	Pass	
Screen	Air discharge ±2 kV, ±4 kV, ±8 kV	Pass	
Screw	Contact discharge ±4 kV	Pass	
Coupling plane(VCP)	Contact discharge ±4 kV	Pass	

5.1.2 RF electromagnetic field immunity test

Result:	**Passed**

The test was performed inside a fully-anechoic chamber for the whole frequency range with the part of the ground plane between the field generating antenna and the equipment under test covered by absorbing material. The distance between the tip of the antenna and the side of system tested is 2.2 m (80 MHz-1000 MHz) or 3.6 m (1000 MHz-2700 MHz). The field uniformity of the test sites is regularly calibrated to ensure the 0-6 dB field uniformity criterion as specified by IEC 61000-4-3 is met.

Test procedure	:	EN 61000-4-3:2006+A1+A2
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 9.2 EN 301 489-3 V2.1.1:2019, clause 7.3
Test level	:	3 V/m
Frequency range	:	80 MHz-2700 MHz
Modulation	:	80 % 1 kHz AM
Frequency scan speed	:	Frequency step: 1 %; Dwell time: 3 s
Input voltage	:	AC 230 V, 50 Hz
Operation mode	:	Continuously working by WIFI control
Performance criteria	:	A

Table 4: RF electromagnetic field immunity test results

Polarization	Position	Result	Remarks
Horizontal	Front side	Pass	During the test, the EUT can operate as intended.
	Rear side		
	Left side		
	Right side		
Vertical	Front side	Pass	During the test, the EUT can operate as intended.
	Rear side		
	Left side		
	Right side		

5.2 Power Port and Signal Port

5.2.1 Fast Transients

Result:	**Passed**

During the test, the EUT was placed on a 0.1 m high wooden support above the reference ground plane. The minimum distance between the EUT and all other conductive structures except the reference ground plane beneath the EUT is more than 0.5 m.

The length between the coupling device and the EUT is 0.5 m ± 0.05 m. The cord length more than 0.5 m, the excess length of this cable shall be folded to avoid a flat coil and situated at a distance of 0.1 m above the ground reference plane.

Test procedure	:	EN 61000-4-4:2004+A1
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 9.4 EN 301 489-3 V2.1.1:2019, clause 7.3
Test level	:	±1 kV, 5 kHz, for AC power lines
Polarity	:	+/-
Coupling duration	:	2 min/polarity
Input voltage	:	AC 230 V, 50 Hz
Operation mode	:	Continuously working by WIFI control
Performance criteria	:	B

Table 5: EFT/B immunity test results

Coupling lines	Result	Remarks
AC input power line (L+N+PE)	Pass	During the test, the EUT can operate as intended.

5.2.2 Injected Current

Result:	**Passed**

During the test, the sample was placed on a 0.1 m high wooden support above the reference ground plane. The minimum distance between the sample and all other conductive structures except the reference ground plane beneath the EUT is more than 0.5 m.

A CDN was used to couple the disturbing signal onto the power input port of the sample. The distance between the EUT and the injected point is within 0.1-0.3 m. The cable between the EUT and current injection point is placed about 50 mm above the reference ground plane.

Test procedure	:	EN 61000-4-6:2009
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 9.5 EN 301 489-3 V2.1.1:2019, clause 7.3
Test level	:	3 Vrms
Frequency range	:	0.15 – 80 MHz
Modulation	:	80 % AM, 1 kHz
Frequency scan speed	:	Frequency step: 1 %; Dwell time: 3 s
Input voltage	:	AC 230 V, 50 Hz
Operation mode	:	Continuously working by WIFI control
Performance criteria	:	A

Table 6: Injected current test results

Coupling lines	Result	Remarks
AC input power	Pass	During the test, the EUT can operate as intended.

5.2.3 Surges to AC Power Port

Result:	**Passed**

Test procedure	:	EN 61000-4-5:2006
Reference clause	:	EN 301 489-1 V2.1.1:2017, clause 9.8 EN 301 489-3 V2.1.1:2019, clause 7.3
Test level	:	0.5 kV, 1 kV (phase to neutral) 0.5 kV, 1 kV, 2 kV (phase/neutral to protection earth)
T_r/T_d	:	1.2/50 µs (open-circuit voltage) 8/20 µs (short-circuit current)
Polarity	:	Positive / Negative
Pulse number	:	5 pulses for each polarity
Coupling phase	:	0°, 90°, 180°, 270°
Repetition rate	:	1 pulse/min
Input voltage	:	AC 230 V, 50 Hz
Operation mode	:	Continuously working by WIFI control
Performance criteria	:	B

Table 7: Surge immunity test results

Coupling mode	Result	Remarks
Phase to neutral 0.5 kV, 1 kV	Pass	During the test, the EUT can operate as intended.
Phase to protective earth 0.5 kV, 1 kV, 2 kV	Pass	During the test, the EUT can operate as intended.
Neutral to protective earth 0.5 kV, 1 kV, 2 kV	Pass	During the test, the EUT can operate as intended.

5.2.4 Voltage dips and interruptions to AC Power Port

Result:	**Passed**

Test procedure : EN 61000-4-11:2004
Reference clause : EN 301 489-1 V2.1.1:2017, clause 9.7
EN 301 489-3 V2.1.1:2019, clause 7.3
Test level : 0 % residual voltage for 0.5 T;
0 % residual voltage for 1 T;
70 % residual voltage for 25 T;
0 % residual voltage for 250 T;
Input voltage : AC 230V , 50 Hz
Operation mode : Continuously working by remote control
Performance criteria : C

Table 8: Test condition and test result for voltage interruptions

Environmental Phenomena	Test level (in % U_T)	Duration (in period of the rated frequency)	Remarks
Dips	0	0.5T (10 ms)	During the test, the EUT can operate as intended
Dips	0	1T (20 ms)	During the test, the EUT can operate as intended
Dips	70	25 (500 ms)	The function of exhaust for EUT was weaken during testing and after the disturbance ceased, it could be restored automatically.
Interruptions	0	250 (5 s)	The EUT stopped working during the test and recovered manually after the test.

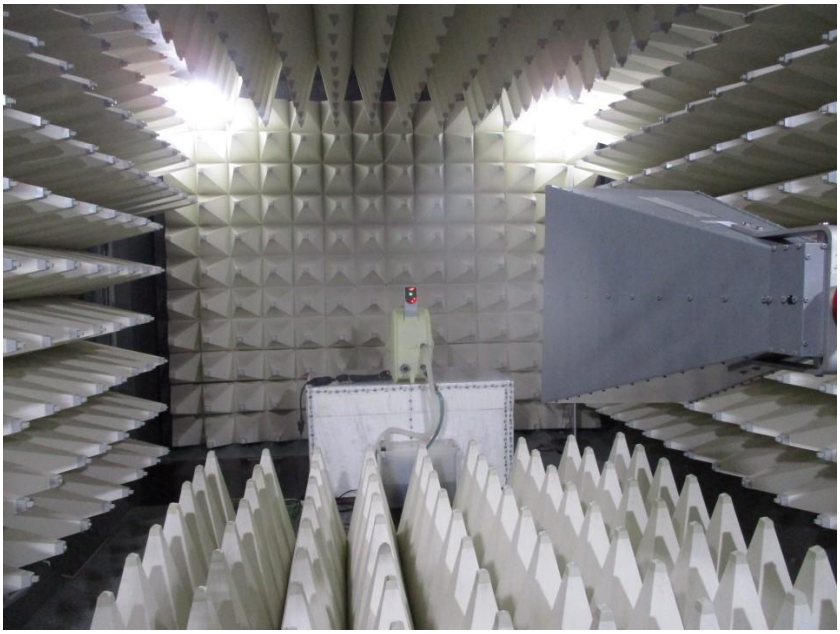
6 Photographs of the Test Set-Up

Photograph 1: Set-up for measurement of harmonic and voltage fluctuations

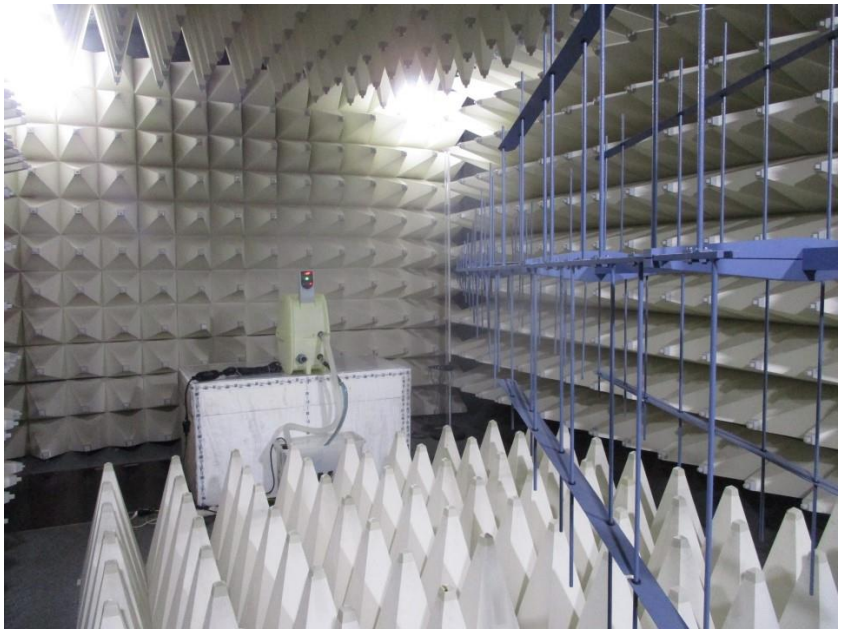
Photograph 2: Set-up for measurement of disturbance voltage on AC mains

Photograph 3: Set-up for immunity test of electrostatic discharge

Photograph 4: Set-up for immunity test of RF electromagnetic field

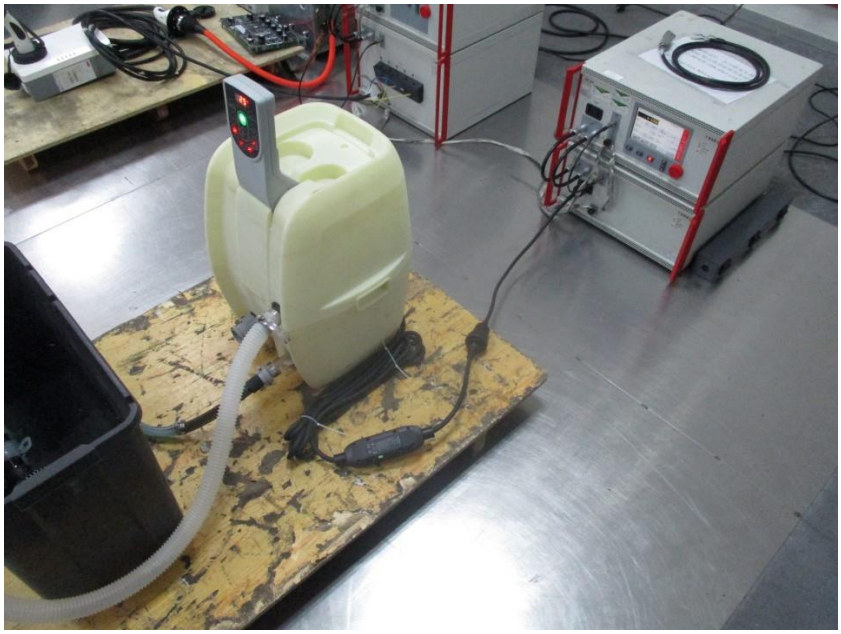


(80 MHz-1000 MHz)

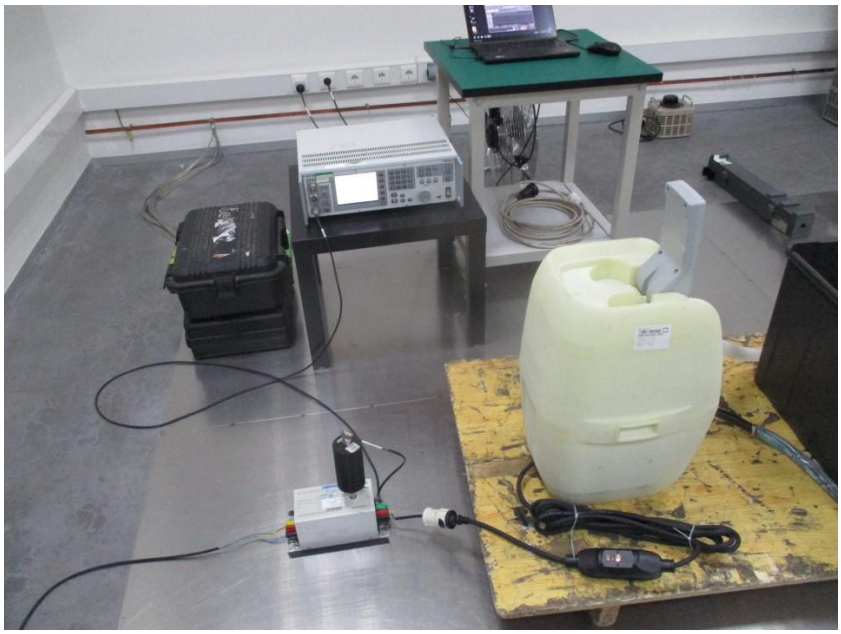


(1-2.7 GHz)

Photograph 5: Set-up for immunity test of fast transient/burst and surge



Photograph 6: Set-up for immunity test of injected current



Photograph 7: Set-up for immunity test of voltage dips and short interruptions

7 List of Test and Measurement Instruments

Equip.	Description	Model	Manufacturer	Last Date DD.MM.YYYY	Due Date DD.MM.YYYY
1830003	Artificial mains network	ENV432	Rohde & Schwarz	01.11.2019	01.11.2020
1811405	EMI test receiver	ESCI	Rohde&Schwarz	14.02.2019	14.02.2021
1811421	3-phase harmonics/fluctuation tester	ProfLine 2145-400	Teseq	01.03.2019	01.03.2021
1811420	45kVA AC power source	NSG 1007-45	Teseq	01.03.2019	01.03.2021
1825639	Harmonics/flicker measurement software	Win2105 (V2.22)	Teseq	N/A	N/A
1811381	ESD generator	NSG 435	Schaffner	26.07.2019	26.07.2020
1811396	Barometer	DYM3	Ningbo Jiangshan Glass	04.04.2018	04.04.2021
1811416	Fully anechoic chamber	FAC3plus	Frankonia	25.07.2019	25.07.2022
1811390	Signal generator	SMR20	Rohde&Schwarz	03.11.2017	03.11.2020
1813679	Power amplifier	250W1000A	Amplifier Research	10/06/2019	10/06/2020
1825214	Power amplifier	AS0825-170	Milmega	20.03.2019	20.03.2020
1811397	Power amplifier	AS0206-50	Milmega	01.11.2019	01.11.2020
1817023	Average power sensor	NRP6AN	Rohde&Schwarz	19.02.2019	19.02.2021
1811398	Broadband field meter	NBM-520	Narda	23.04.2019	23.04.2020
1811399	E-field Probe	EF1891	Narda	23.04.2019	23.04.2020
1811432	EMS antenna	HL 046	Rohde&Schwarz	N/A	N/A
1811433	Broadband horn antenna	BBHA 9120 E	Schwarzbeck	N/A	N/A
1828661	40dB dual-directional coupler	C5982	Werlatone	19.02.2019	19.02.2024
1828662	40dB dual-directional coupler	C6187	Werlatone	19.02.2019	19.02.2024
1824845	EMC measurement software	EMC32 (Ver 10.20.01)	Rohde&Schwarz	N/A	N/A
1811409	EMC test system	NSG 3040	Teseq	01.11.2019	01.11.2020
1814624	Coupling/decoupling network	CDN M016	Schaffner	09.02.2018	09.02.2021
1811423	Conducted immunity test system	NSG 4070B-75	Teseq	17.09.2019	17.09.2020
1811428	3-phase voltage dips simulator	CSS-20P3	Shanghai Skylark	30.10.2019	30.10.2020

8 List of Tables

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End of test report