

TEST REPORT

Report No.	CISRR26082037202
Project No.	CISR260820372
Applicant	Yongkang Zimo Security Equipment Co., Ltd
Address	3rd Floor, No. 12 Huancun South Road, Wangshangdian Village, Zhiying Town, Yongkang City, Jinhua, Zhejiang Province
Manufacturer	Yongkang Zimo Security Equipment Co., Ltd
Address	3rd Floor, No. 12 Huancun South Road, Wangshangdian Village, Zhiying Town, Yongkang City, Jinhua, Zhejiang Province
Product Name	Smart lock
Trade mark	-
Model/Type reference	BNK005
Listed Model(s)	BNK001, BNK006, P1, BNK005PRO, P11, P12, P8, P9, K15, P15, D3, K9S, K12
Standard	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.3.1 EN IEC 61000-3-2:2019+A2:2024 EN 61000-3-3:2013+A2:2021+AC:2022-01
Date of sample receipt	July 2, 2026
Test date	July 3, 2026 to July 8, 2026
Issue date	August 25, 2026
Test result	Complied

Lucas Huang

Reviewed by: Lucas Huang



Approved by: Hans Hu

The test results relate only to the tested samples.

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1. REPORT VERSION

Version No.	Issue date	Description
00	August 25, 2026	According to the original report (report number: CISRR26061519002), the series model has been updated. This report supersedes the original report, and the original report is hereby invalidated as of now.

2. TEST DESCRIPTION

No.	Test Item	Standard Requirement	Result
1	Conducted emissions (AC power port)	EN 301 489-1, clause 8.4 EN 301 489-17, clause 7.1	Pass
2	Radiated emissions (30MHz-1GHz)	EN 301 489-1, clause 8.2 EN 301 489-17, clause 7.1	Pass
3	Radiated emissions (above 1GHz)	EN 301 489-1, clause 8.2 EN 301 489-17, clause 7.1	Pass
4	Voltage fluctuations and flicker	Clause 4	Pass
5	Electrostatic discharge	EN 301 489-1, clause 9.3 EN 301 489-17, clause 7.2	Pass
6	Radio frequency electromagnetic field (80 MHz to 6 000 MHz)	EN 301 489-1, clause 9.2 EN 301 489-17, clause 7.2	Pass
7	Fast transients, common mode (AC power port)	EN 301 489-1, clause 9.4 EN 301 489-17, clause 7.2	Pass
8	Surges (AC power port)	EN 301 489-1, clause 9.8 EN 301 489-17, clause 7.2	Pass
9	Radio frequency, common mode 0,15 MHz to 80 MHz (AC power port)	EN 301 489-1, clause 9.5 EN 301 489-17, clause 7.2	Pass
10	Voltage dips and interruptions	EN 301 489-1, clause 9.7 EN 301 489-17, clause 7.2	Pass

Note:

- The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Product Description

Main unit information:	
Product Name:	Smart lock
Trade mark:	-
Model No.:	BNK005
Listed Model(s):	BNK001,BNK006, P1, BNK005PRO, P11, P12, P8, P9, K15, P15, D3, K9S, K12
Model difference:	The series is only different in model naming and sales channels, while the internal structure remains the same.
Power supply:	DC 5V by USB-C port DC 7.4V Internal battery
Hardware version:	-
Software version:	-
Accessory unit information:	
Battery information:	YC04B 4200mAh by DC 7.4V

3.2. Modification of EUT

No modifications are made to the EUT during all test items.

3.3. Deviation from standards

None

3.4. Testing Site

Laboratory Name	Shenzhen Bangce Testing Technology Co., Ltd.
Laboratory Location	101, building 10, Yunli Intelligent Park, Shutianpu community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Contact information	Tel: 86-755-2319 6848, email: service@cis-cn.net Website: http://www.cis-cn.net/

4. TEST CONFIGURATION

4.1. Descriptions of test mode

No	Test mode	Description
Mode1	WiFi link mode	Keep the EUT in WiFi linking mode with AE.
Mode2	Charging mode	Keep the EUT in Charging mode.

4.2. Environmental conditions

Type	Requirement
Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050mba

4.3. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	Conducted Emission at AC power line (150kHz ~ 30MHz)	3.52dB
2	Radiated Emission (30MHz ~ 1000MHz)	4.46dB
3	Radiated Emission (Above 1GHz)	4.60dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

4.4. Equipment Used during the Test

Conducted emissions (AC power port)						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	8*4*3 Shielding room	SKET	8m*4m*3 m	CIS-EE012	2024-09-02	2027-09-01
2	EMI Test Receiver	ROHDE&SCHWARZ	ESPI7	CIS-EE043	2026-01-06	2027-01-05
3	LISN	SCHWARZBECK	NSLK 8127	CIS-EE044	2026-01-06	2027-01-05
4	LISN-AE	ETS	3810/2N M	CIS-EE075	2026-01-06	2027-01-05
5	RF Cable	SKET	-	CIS-EE071	2026-01-06	2027-01-05
6	Power Strip	BULL	GNIN-413	CIS-EE087	2026-01-06	2027-01-05
7	Test software	FARAD	EZ-CON	CIS-EE095	/	/
8	Thermohygrometer	DeLi	8866	CIS-EE069	2026-01-06	2027-01-05

Radiated emissions (30MHz-1GHz)						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	9*6*6 Chamber	SKET	9m*6m*6 m	CIS-EE011	2024-09-02	2027-09-01
2	EMI Test Receiver	ROHDE&SCHWARZ	ESCI	CIS-EE016	2026-01-06	2027-01-05
3	Broadband Antenna	SCHWARZBECK	VULB 9163	CIS-EE018	2026-01-06	2029-01-05
4	Preamplifier	Tonscend	TAP9K3G 40	CIS-EE021	2026-01-06	2027-01-05
5	RF Cable	Tonscend	-	CIS-EE025	2026-01-06	2027-01-05
6	Test software	FARAD	EZ-EMC RE	CIS-EE097	/	/
7	Thermohygrometer	DeLi	8866	CIS-EE067	2026-01-06	2027-01-05

Radiated emissions (above 1GHz)						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	9*6*6 Chamber	SKET	9m*6m*6 m	CIS-EE011	2024-09-02	2027-09-01
2	Double Ridged Broadband Horn Antennas	SCHWARZBECK	BBHA 9120D	CIS-EE019	2026-01-06	2029-01-05
3	Preamplifier	Tonscend	TAP0101 8050	CIS-EE022	2026-01-06	2027-01-05
4	RF Cable	Tonscend	-	CIS-EE024	2026-01-06	2027-01-05

5	Test software	FARAD	EZ-EMC RE	CIS-EE097	/	/
6	Thermohygrometer	DeLi	8866	CIS-EE067	2026-01-06	2027-01-05
7	Spectrum analyzer	Agilent	N9020A	CIS-RE001	2026-01-06	2027-01-05

Voltage fluctuations and flicker

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Harmonic and Voltage flicker Testing System	CI	CI-5000	CIS-EE027	2026-01-06	2027-01-05
2	Test software	CI	CTS 4	CIS-EE101	/	/

Electrostatic discharge

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Electrostatic Generator	ETEST	ES-ESD-20	CIS-EE029	2026-01-06	2027-01-05
2	Thermohygrometer	DeLi	8866	CIS-EE089	2026-01-06	2027-01-05

Radio frequency electromagnetic field (80 MHz to 6 000 MHz)

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	9*6*6 Chamber	SKET	9m*6m*6m	CIS-EE011	2024-09-02	2027-09-01
2	Signal Generator	Agilent	N5181A	CIS-EE052	2026-01-06	2027-01-05
3	Power Probe	ROHDE&SCHWARZ	Z11	CIS-EE053	2026-01-06	2027-01-05
4	Power Probe	ROHDE&SCHWARZ	Z11	CIS-EE054	2026-01-06	2027-01-05
5	Power Amplifier	SKET	HAP_80M01G-250W	CIS-EE055	2026-01-06	2027-01-05
6	Power Amplifier	SKET	HAP_01G06G-75W	CIS-EE056	2026-01-06	2027-01-05
7	Stacked Log-periodic Antenna	SKET	STLP 9129 Plus	CIS-EE057	2026-01-06	2027-01-05
8	Field Strength Probe	Narda	EP-601	CIS-EE058	2026-01-06	2027-01-05
9	RF Cable	SKET	-	CIS-EEA173	2026-01-06	2027-01-05
10	Test software	SKET	EMC-S	CIS-EE099	/	/

Fast transients, common mode (AC power port)

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Burst & Surge Generator	ETEST	ES-4516A	CIS-EE030	2026-01-06	2027-01-05
2	Capacitive Coupling Clamp	ETEST	EFTC	CIS-EE078	2026-01-06	2027-01-05

Surges (AC power port)

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Burst & Surge Generator	ETEST	ES-4516A	CIS-EE030	2026-01-06	2027-01-05
2	Surge Generator for Signal Port	ETEST	ES-506AT	CIS-EE031	2026-01-06	2027-01-05
3	Coupling and Decoupling Network for Signal Port	ETEST	ES-CDN-508	CIS-EE032	2026-01-06	2027-01-05
4	Coupling and Decoupling Network for Signal Port	ETEST	ES-CDN-508A	CIS-EE033	2026-01-06	2027-01-05

Radio frequency, common mode 0,15 MHz to 80 MHz (AC power port)

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Integrated Conducted Immunity Tester	SKET	CITS_150 k230M-75W	CIS-EE038	2026-01-06	2027-01-05
2	Coupling and Decoupling Network	SKET	CDN_150 K230M-M2/M3-16A	CIS-EE039	2026-01-06	2027-01-05
3	Coupling Clamp	SKET	PECL-100	CIS-EE073	2026-01-06	2027-01-05
4	6dB Attenuator	SKET	AP_DC01 G-100W-N-6dB	CIS-EE041	2026-01-06	2027-01-05
5	RF Cable	SKET	-	CIS-EE091	2026-01-06	2027-01-05
6	Test software	SKET	EMC-S	CIS-EE100	/	/
7	Thermohygrometer	DeLi	8866	CIS-EE090	2026-01-06	2027-01-05

Voltage dips and interruptions

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Voltage Dip Simulator	ETEST	ES-1113A	CIS-EE036	2026-01-06	2027-01-05

5. TEST RESULTS

5.1. Emission Test Results (EMI)

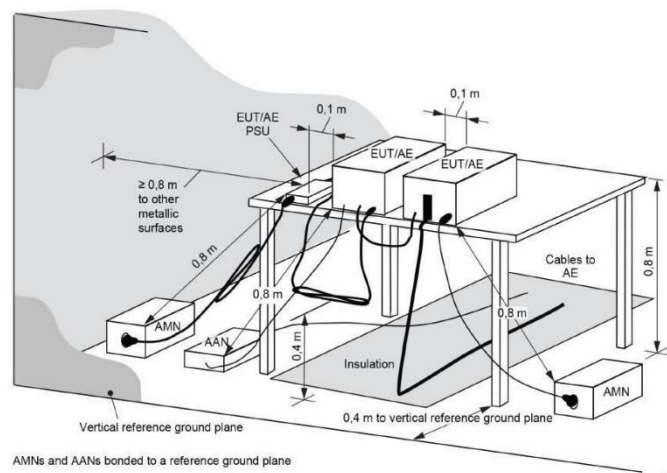
5.1.1. Conducted emissions (AC power port)

Test Requirement:	EN 301 489-1, clause 8.4 EN 301 489-17, clause 7.1		
Test Limit:	Frequency Range (MHz)	Detector Type / Bandwidth	Limit (dBuV)
	0.15 to 0.5	Quasi Peak / 9 kHz	66 to 56
	0.5 to 5	Quasi Peak / 9 kHz	56
	5 to 30	Quasi Peak / 9 kHz	60
	0.15 to 0.5	Average / 9 kHz	56 to 46
	0.5 to 5	Average / 9 kHz	46
	5 to 30	Average / 9 kHz	50
Test Method:	EN 55032, annex A.3		
Procedure:	An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor		

5.1.1.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:	Mode2				
Final test mode:	Mode2				

5.1.1.2. Test Setup Diagram

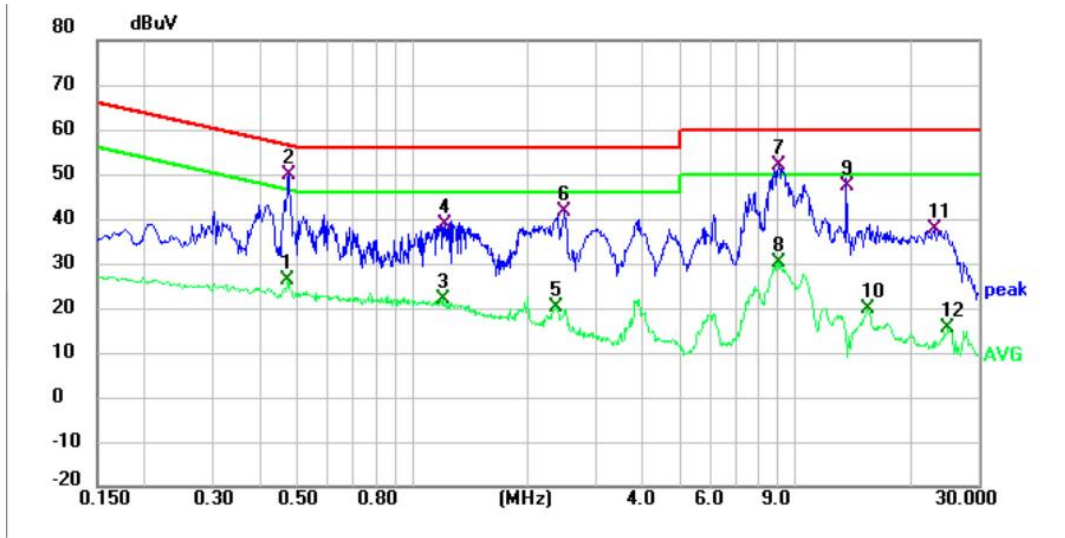


5.1.1.3. Test Result

Pass

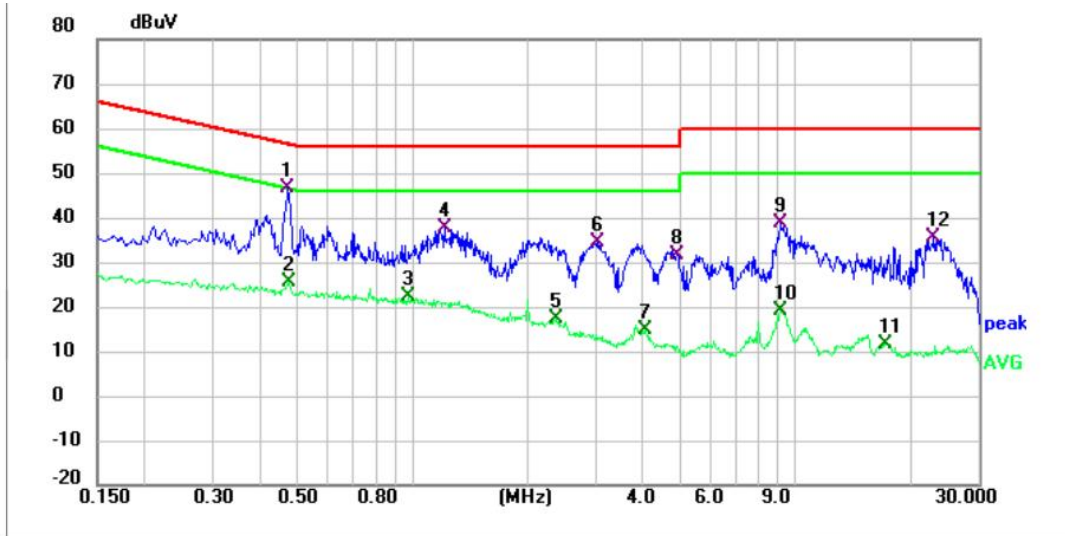
5.1.1.4. Test Data

Mode2 / Line: Line



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.4700	16.08	10.15	26.23	46.51	20.28	AVG
2 *	0.4740	39.68	10.15	49.83	56.44	6.61	QP
3	1.1980	11.66	10.20	21.86	46.00	24.14	AVG
4	1.2100	28.64	10.20	38.84	56.00	17.16	QP
5	2.3820	9.75	10.27	20.02	46.00	25.98	AVG
6	2.4820	31.33	10.28	41.61	56.00	14.39	QP
7	9.1020	41.43	10.37	51.80	60.00	8.20	QP
8	9.1020	19.94	10.37	30.31	50.00	19.69	AVG
9	13.5724	36.65	10.50	47.15	60.00	12.85	QP
10	15.4660	9.30	10.54	19.84	50.00	30.16	AVG
11	23.1299	26.68	11.01	37.69	60.00	22.31	QP
12	24.9940	4.46	10.97	15.43	50.00	34.57	AVG

Mode2 / Line: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1 *	0.4700	36.59	10.12	46.71	56.51	9.80	QP
2	0.4740	15.42	10.12	25.54	46.44	20.90	AVG
3	0.9700	12.13	10.16	22.29	46.00	23.71	AVG
4	1.2140	27.63	10.17	37.80	56.00	18.20	QP
5	2.3620	7.00	10.25	17.25	46.00	28.75	AVG
6	3.0300	24.24	10.29	34.53	56.00	21.47	QP
7	4.0420	4.56	10.34	14.90	46.00	31.10	AVG
8	4.9180	21.27	10.37	31.64	56.00	24.36	QP
9	9.1300	28.51	10.37	38.88	60.00	21.12	QP
10	9.1300	8.75	10.37	19.12	50.00	30.88	AVG
11	17.1860	1.03	10.65	11.68	50.00	38.32	AVG
12	22.9060	24.48	10.99	35.47	60.00	24.53	QP

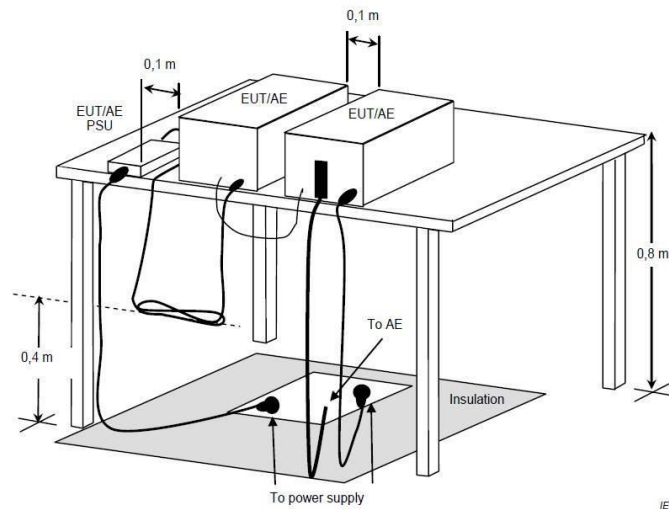
5.1.2. Radiated emissions (30MHz-1GHz)

Test Requirement:	EN 301 489-1, clause 8.2 EN 301 489-17, clause 7.1		
Test Limit:	FREQUENCY (MHz)	dB(μV/m) At 10m	dB(μV/m) At 3m
	30MHz-230MHz	30	40
	230MHz-1GHz	37	47
Test Method:	EN 55032, annex A.2		
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor		

5.1.2.1. E.U.T. Operation

Operating Environment:					
Temperature:	22.6 °C	Humidity:	55.9 %	Atmospheric Pressure:	102.3 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

5.1.2.2. Test Setup Diagram

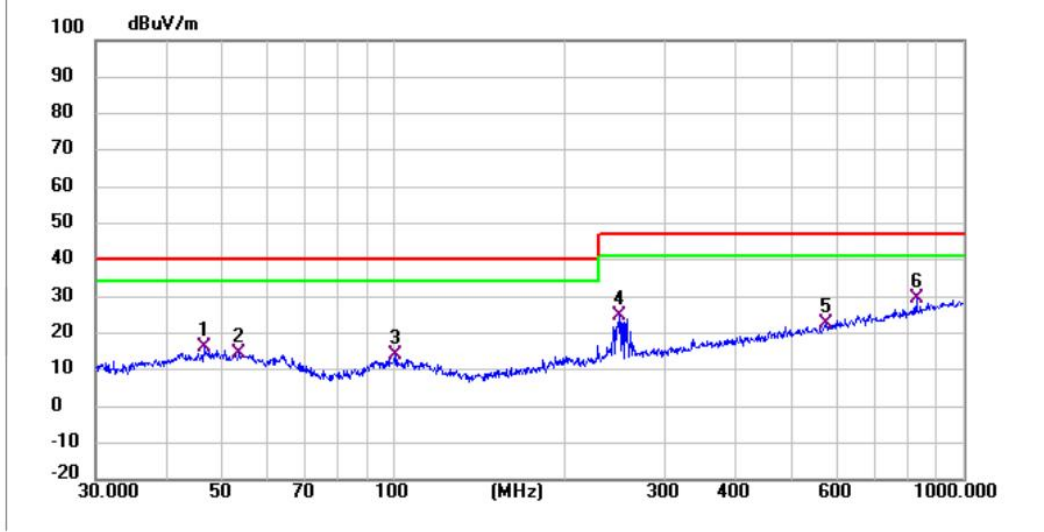


5.1.2.3. Test Result

Pass

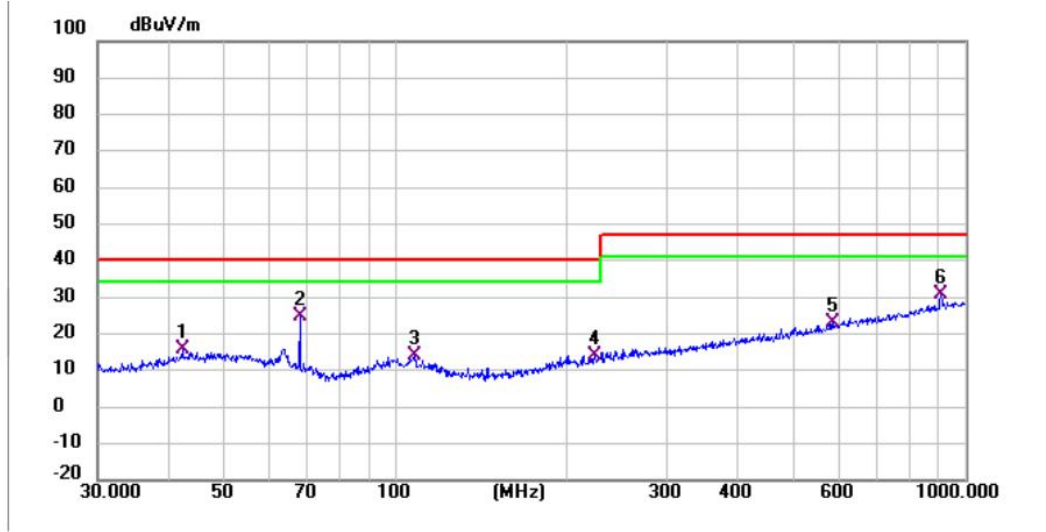
5.1.2.4. Test Data

Mode1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.5030	44.79	-28.71	16.08	40.00	23.92	QP
2	53.6931	43.16	-28.83	14.33	40.00	25.67	QP
3	100.5806	44.51	-30.53	13.98	40.00	26.02	QP
4	249.4250	53.64	-28.86	24.78	47.00	22.22	QP
5	574.6258	44.20	-21.50	22.70	47.00	24.30	QP
6 *	827.4934	46.96	-17.59	29.37	47.00	17.63	QP

Mode1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.3022	44.59	-28.92	15.67	40.00	24.33	QP
2 *	67.9128	56.71	-32.00	24.71	40.00	15.29	QP
3	107.8877	44.52	-30.51	14.01	40.00	25.99	QP
4	224.5192	43.85	-29.80	14.05	40.00	25.95	QP
5	586.8436	43.91	-21.04	22.87	47.00	24.13	QP
6	906.4824	47.24	-16.29	30.95	47.00	16.05	QP

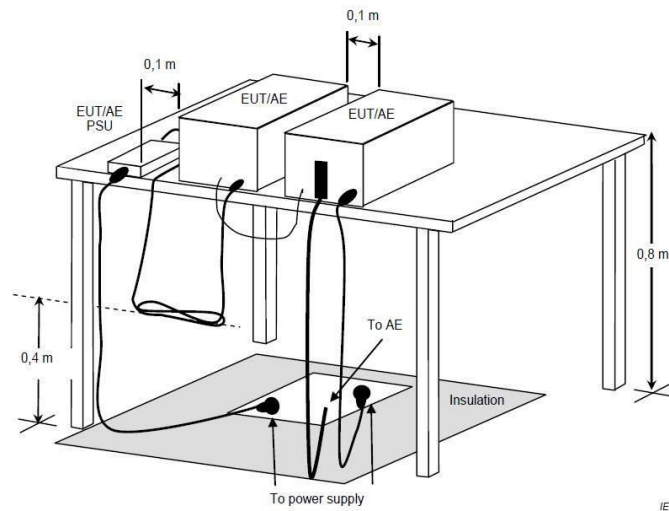
5.1.3. Radiated emissions (above 1GHz)

Test Requirement:	EN 301 489-1, clause 8.2 EN 301 489-17, clause 7.1		
Test Limit:	Frequency range (MHz)	Radiated emissions limit (dBuV/m)	
		Peak	Average
	1000 to 6000	74	54
	Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000MHz to 6000MHz		
Test Method:	EN 55032, annex A.2		
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor		

5.1.3.1. E.U.T. Operation

Operating Environment:					
Temperature:	23.1 °C	Humidity:	56.8 %	Atmospheric Pressure:	102.3 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

5.1.3.2. Test Setup Diagram

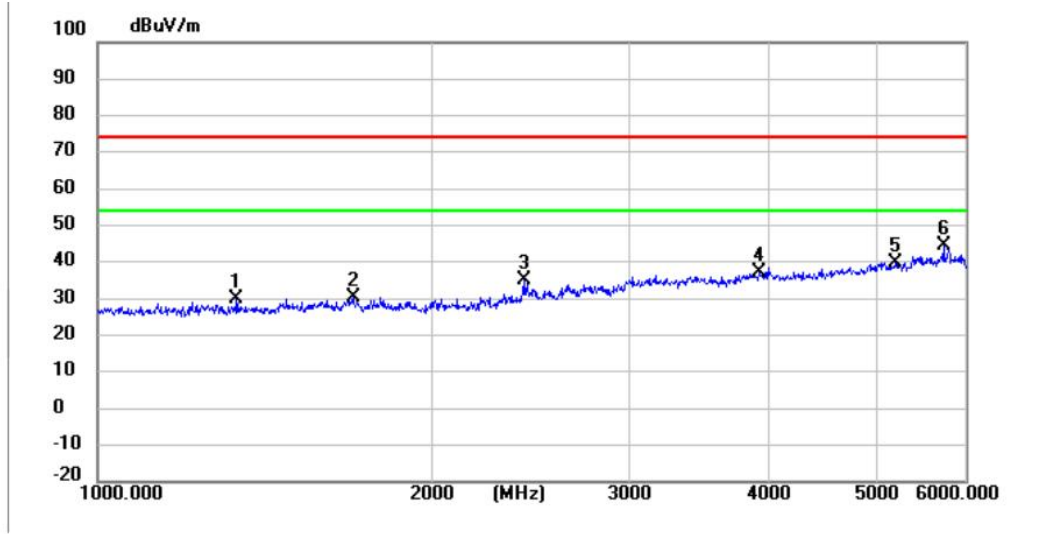


5.1.3.3. Test Result

Pass

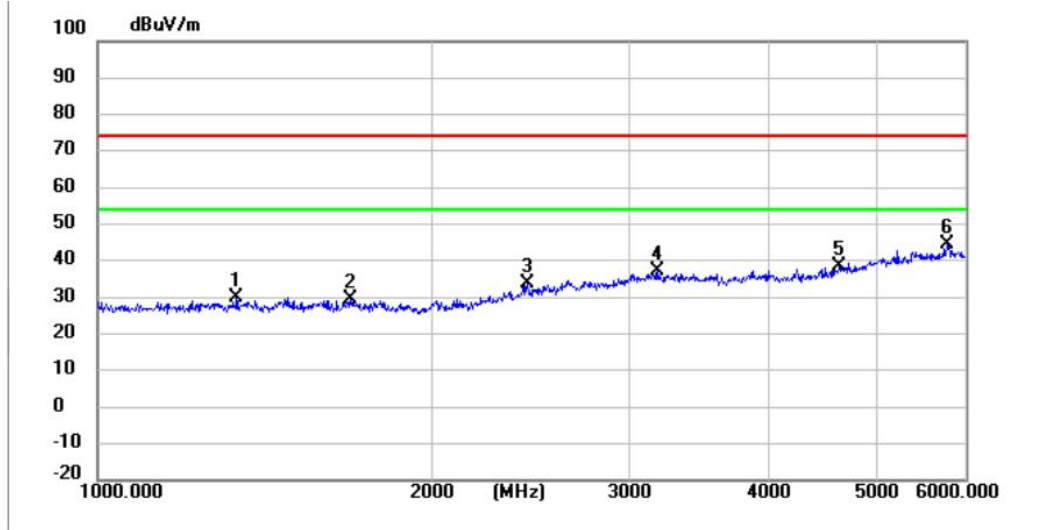
5.1.3.4. Test Data

Mode1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1333.5000	51.15	-21.22	29.93	74.00	44.07	peak
2	1699.5000	50.26	-20.09	30.17	74.00	43.83	peak
3	2413.0000	52.31	-17.27	35.04	74.00	38.96	peak
4	3928.5000	49.54	-12.49	37.05	74.00	36.95	peak
5	5202.0000	47.95	-7.98	39.97	74.00	34.03	peak
6 *	5745.5000	50.89	-6.19	44.70	74.00	29.30	peak

Mode1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1333.5000	51.15	-21.22	29.93	74.00	44.07	peak
2	1685.5000	49.51	-20.17	29.34	74.00	44.66	peak
3	2433.0000	50.91	-17.23	33.68	74.00	40.32	peak
4	3181.0000	51.43	-14.12	37.31	74.00	36.69	peak
5	4632.5000	49.22	-10.54	38.68	74.00	35.32	peak
6 *	5784.0000	50.53	-6.19	44.34	74.00	29.66	peak

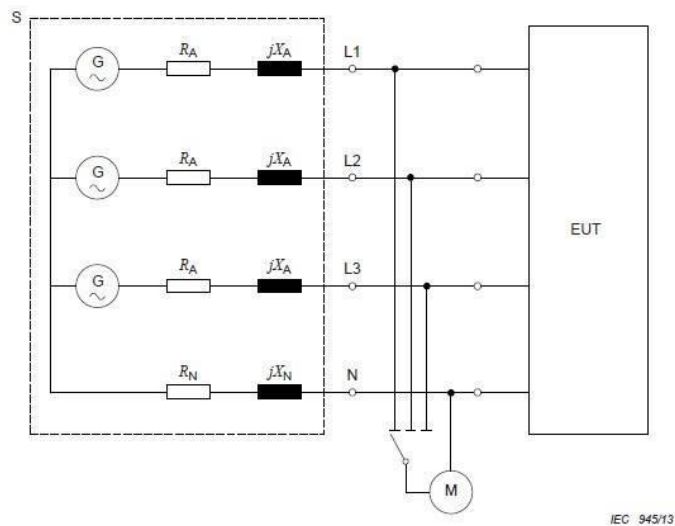
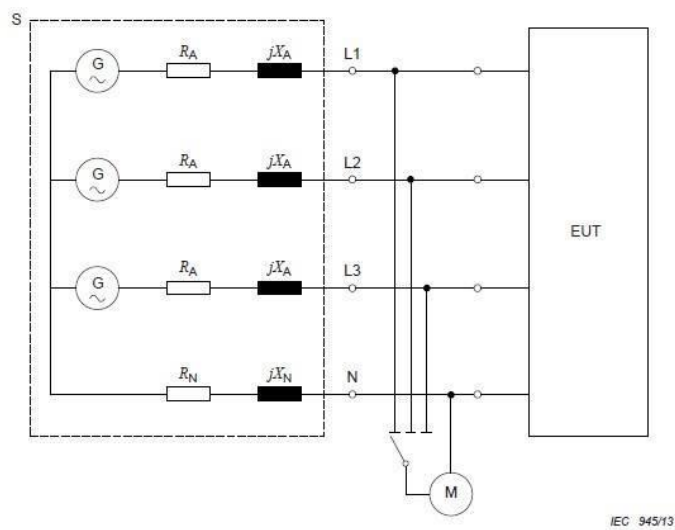
5.1.4. Voltage fluctuations and flicker

Test Requirement:	Clause 4
Test Limit:	EN 61000-3-3, clause 5
Test Method:	EN 61000-3-3, clause 6

5.1.4.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:	Mode2				
Final test mode:	Mode2				

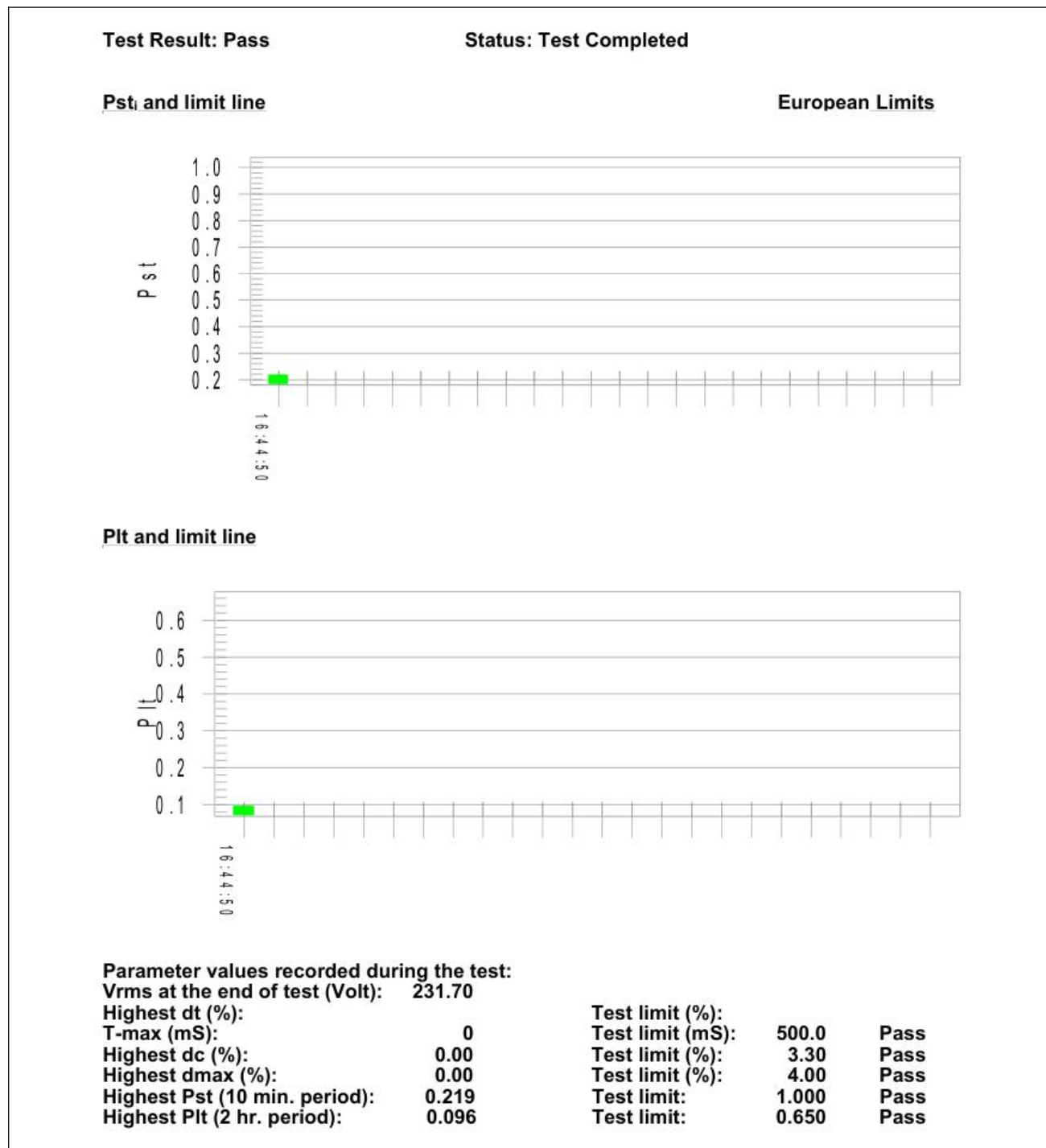
5.1.4.2. Test Setup Diagram



5.1.4.3. Test Result

Pass

5.1.4.4. Test Data



5.2. Immunity Test Results (EMS)

Performance Criteria for ETSI EN 301 489-1 V2.2.3 (2019-11)

Continuous phenomena:

During the test, the equipment shall:

- continue to operate as intended;
- not unintentionally transmit;
- not unintentionally change its operating state;
- not unintentionally change critical stored data.

Continuous and non-continuous operation

Latency is the time delay between the initiation and the completion of operation of the EUT.

Correct functioning requires completing the relevant operation within the maximum latency time.

Where the maximum latency is specified in the applicable harmonised radio standard (in the wanted performance criterion, or an acknowledge requirement), that value shall be used.

Where this is not the case, then the maximum latency is that required by the intended use of the EUT.

Operating modes

Where the EUT has more than one mode of operation (see clause 4.4.1), an unplanned transition from one mode to another is considered as an unintentional response. The EUT shall be tested in all modes to confirm there are no such unintentional responses.

Transient phenomena:

For all ports and transient phenomena with the exception described below, the following applies:

- The application of the transient phenomena shall not result in a change of the mode of operation (e.g. unintended transmission) or the loss of critical stored data.
 - After application of the transient phenomena, the equipment shall operate as intended.
- For surges applied to symmetrically operated wired network ports intended to be connected directly to outdoor lines the following criteria applies:
- For products with only one symmetrical port intended for connection to outdoor lines, loss of function is allowed, provided the function is self-recoverable, or can be otherwise restored. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.
 - For products with more than one symmetrical port intended for connection to outdoor lines, loss of function on the port under test is allowed, provided the function is self-recoverable. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

Continuous and non-continuous operation

Latency is the time delay between the initiation and the completion of operation of the EUT.

Correct functioning requires completing the relevant operation within the maximum latency time.

Where the maximum latency is specified in the applicable harmonised radio standard (in the wanted performance criterion, or an acknowledge requirement), that value shall be used.

Where this is not the case, then the maximum latency is that required by the intended use of the EUT.

Operating modes

Where the EUT has more than one mode of operation (see clause 4.4.1), an unplanned transition from one mode to another is considered as an unintentional response. The EUT shall be tested in all modes to confirm there are no such unintentional responses.

Performance Criteria for ETSI EN 301 489-17 V3.3.1 (2024-09)

Performance criteria

General performance criteria

The performance criteria are:

- performance criteria A for immunity tests with phenomena of a continuous nature;
 - performance criteria B for immunity tests with phenomena of a transient nature;
 - performance criteria C for immunity tests with power interruptions exceeding a certain time.
- The equipment shall meet the minimum performance criteria as specified in the following clauses.

Performance table

Performance criteria overview

Table 2: Performance criteria

Criteria	During test	After test(i.e. as a result of the application of the test)
----------	-------------	---

A	Shall operate as intended.(See note).Shall be no loss of function.Shall be no unintentional transmissions.	Shall operate as intended.Shall be no degradation of performance.Shall be no loss of function.Shall be no loss of critical stored data.
B	May be loss of function.	Functions shall be self-recoverable.Shall operate as intended after recovering.Shall be no loss of critical stored data.
C	May be loss of function.	Functions shall be recoverable by the operator.Shall operate as intended after recovering.Shall be no loss of critical stored data.
NOTE: Operate as intended during the test shall be considered as: • For equipment that supports a PER or FER, the minimum performance level shall be a PER or FER less than or equal to 10 %. • For equipment that does not support a PER or a FER, (e.g. audio equipment and equipment transmitting sporadic messages) the minimum performance level shall be no loss of the wireless transmission function needed for the intended use of the equipment.		

Performance criteria for Continuous phenomena

The performance criteria A shall apply.

Where the EUT is a transmitter in standby mode, unintentional transmission shall not occur during the test.

Where the EUT is a transceiver in receive mode, unintentional transmission shall not occur during the test.

Performance criteria for Transient phenomena

The performance criteria B shall apply for transient phenomena, except for voltage dips greater than or equal to 100 ms, voltage interruptions of 5 000 ms duration, and surges of 10/700 µs for which performance criteria C shall apply.

Where the EUT is a transmitter in standby mode, unintentional transmission shall not occur as result of the application of the test.

Where the EUT is a transceiver in receive mode, unintentional transmission shall not occur as result of the application of the test.

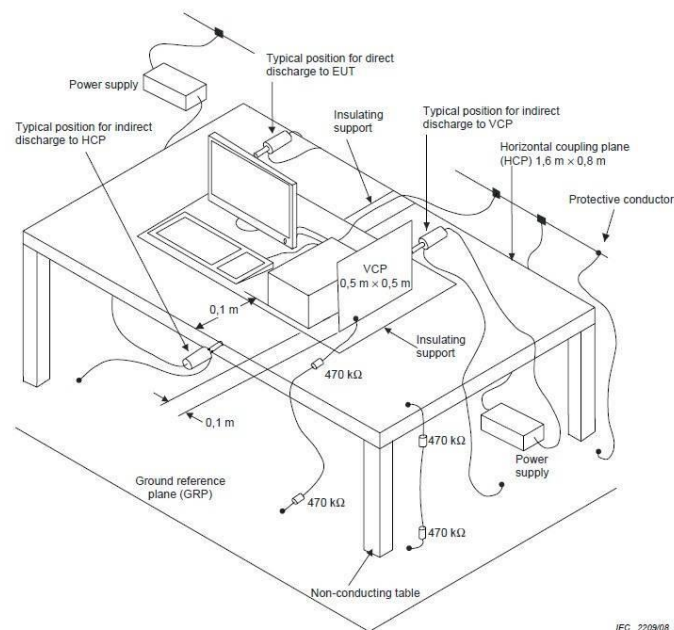
5.2.1. Electrostatic discharge

Test Requirement:	EN 301 489-1, clause 9.3 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-2, clauses 6, 7 and 8
Procedure:	Discharge Impedance: 330Ω/150pF Number of Discharge: Minimum 10 times at each test point Discharge Mode: Single Discharge Discharge Period: 1 second minimum
Performance Criteria:	TT(B), TR(B)

5.2.1.1. E.U.T. Operation

Operating Environment:					
Temperature:	22.6 °C	Humidity:	55 %	Atmospheric Pressure:	102.3 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	Mode1, Mode2				

5.2.1.2. Test Setup Diagram



5.2.1.3. Test Result

Pass

5.2.1.4. Test Data

Discharge type	Volt (kV)	Polarity	Test Point	Result/ Observations
Air discharge	2,4,8	+	1	A
Air discharge	2,4,8	-	1	A
Contact discharge	4	+	2	A
Contact discharge	4	-	2	A
Horizontal Coupling	4	+	3	A

Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A

Test Point: 1. All insulated enclosure and seams.

2. All accessible metal parts of the enclosure.

3. All side.

A: No degradation in the performance of the EUT was observed.

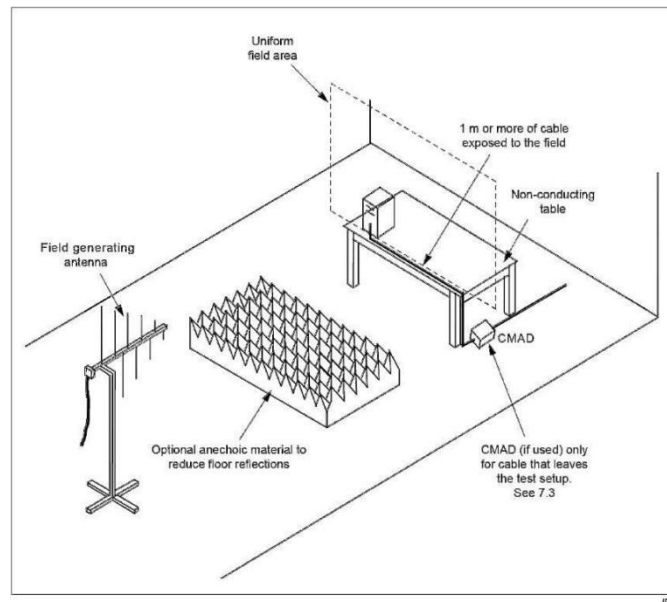
5.2.2. Radio frequency electromagnetic field (80 MHz to 6 000 MHz)

Test Requirement:	EN 301 489-1, clause 9.2 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-3, clauses 6, 7 and 8
Procedure:	Frequency Range: 80MHz to 6GHz Antenna Polarisation: Vertical and Horizontal Modulation: 1kHz,80% Amp. Mod,1% increment
Performance Criteria:	CT(A), CR(A)

5.2.2.1. E.U.T. Operation

Operating Environment:					
Temperature:	23.1 °C	Humidity:	55.2 %	Atmospheric Pressure:	102.3 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

5.2.2.2. Test Setup Diagram



5.2.2.3. Test Result

Pass

5.2.2.4. Test Data

Frequency	Field Strength (V/m)	EUT face	Dwell time	Result/ Observations
80MHz-6GHz	3	Front	3s	A
80MHz-6GHz	3	Back	3s	A
80MHz-6GHz	3	Left	3s	A
80MHz-6GHz	3	Right	3s	A
80MHz-6GHz	3	Top	3s	A
80MHz-6GHz	3	Bottom	3s	A

A: No degradation in the performance of the EUT was observed.

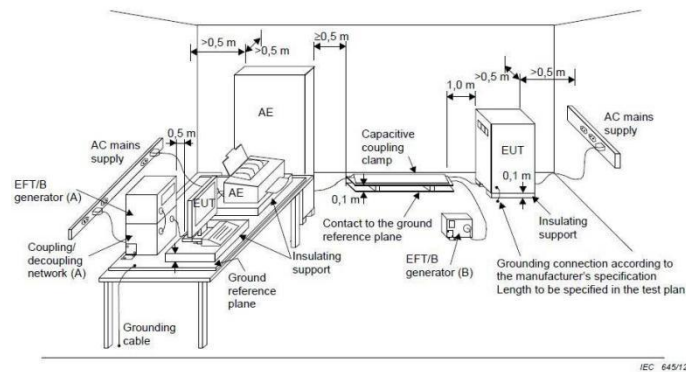
5.2.3. Fast transients, common mode (AC power port)

Test Requirement:	EN 301 489-1, clause 9.4 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-4, clauses 5
Procedure:	Repetition Frequency: 5kHz Burst Period: 300ms
Performance Criteria:	TT(B), TR(B)

5.2.3.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:		Mode2			
Final test mode:		Mode2			

5.2.3.2. Test Setup Diagram



5.2.3.3. Test Result

Pass

5.2.3.4. Test Data

Port	Volt (kV)	Polarity	CDN/ Clamp	Result/ Observations
AC power port	1	+	CDN	A
AC power port	1	-	CDN	A

A: No degradation in the performance of the EUT was observed.

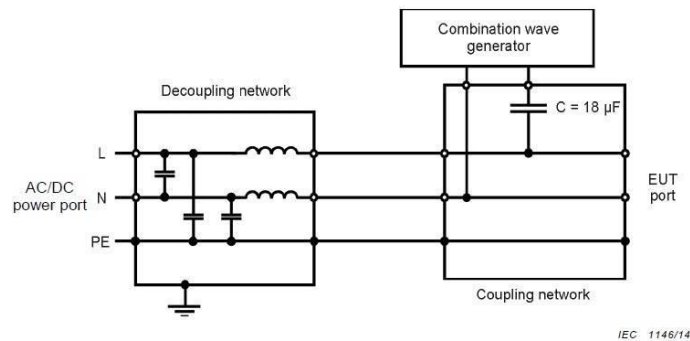
5.2.4. Surges (AC power port)

Test Requirement:	EN 301 489-1, clause 9.8 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-5, clauses 7 and 8
Performance Criteria:	TT(B), TR(B)

5.2.4.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:	Mode2				
Final test mode:	Mode2				

5.2.4.2. Test Setup Diagram



5.2.4.3. Test Result

Pass

5.2.4.4. Test Data

Port	Volt (kV)	Polarity	Phase(degree)	Result/ Observations
L-N	1	+	0°	A
L-N	1	-	0°	A
L-N	1	-	90°	A
L-N	1	+	90°	A
L-N	1	-	180°	A
L-N	1	+	180°	A
L-N	1	+	270°	A
L-N	1	-	270°	A

A: No degradation in the performance of the EUT was observed.

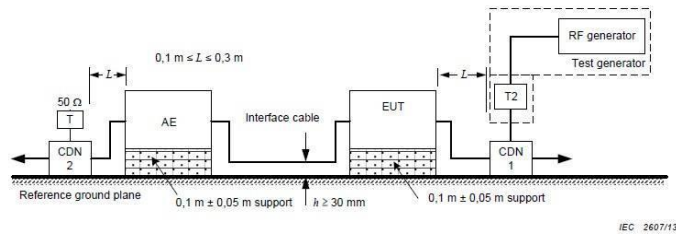
5.2.5. Radio frequency, common mode 0,15 MHz to 80 MHz (AC power port)

Test Requirement:	EN 301 489-1, clause 9.5 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-6, clauses 6 and 8
Performance Criteria:	CT(A), CR(A)

5.2.5.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:	Mode2				
Final test mode:	Mode2				

5.2.5.2. Test Setup Diagram



5.2.5.3. Test Result

Pass

5.2.5.4. Test Data

Port	Strength (Vrms)	CDN/Clamp	Dwell time	Result/ Observations
AC power port	3	CDN	3s	A

A: No degradation in the performance of the EUT was observed.

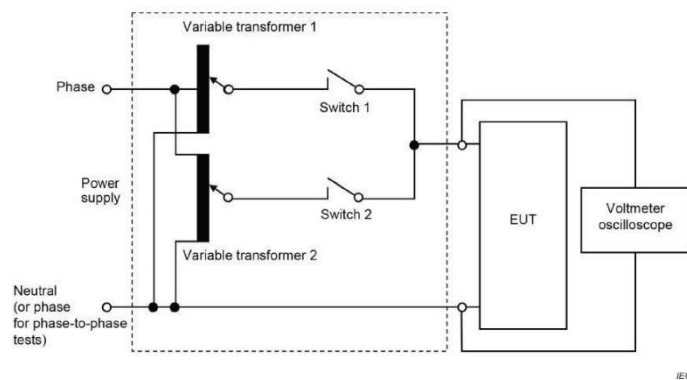
5.2.6. Voltage dips and interruptions

Test Requirement:	EN 301 489-1, clause 9.7 EN 301 489-17, clause 7.2
Test Method:	EN 61000-4-11, clause 8 The test levels shall be: - voltage dip: 0 % residual voltage for 0,5 cycle; - voltage dip: 0 % residual voltage for 1 cycle; - voltage dip: 70 % residual voltage for 25 cycles (at 50 Hz); - voltage interruption: 0 % residual voltage for 250 cycles (at 50 Hz).
Performance Criteria:	Voltage dips: TT(B), TR(B) Voltage interruptions: TT(C), TR(C)

5.2.6.1. E.U.T. Operation

Operating Environment:					
Temperature:	26 °C	Humidity:	60.1 %	Atmospheric Pressure:	102.5 kPa
Pre test mode:	Mode2				
Final test mode:	Mode2				

5.2.6.2. Test Setup Diagram



5.2.6.3. Test Result

Pass

5.2.6.4. Test Data

Level %UT	Phase (degree)	Duration	No. of Dips/ Interruptions	Result/ Observations
0	0°	0.5 Cycles	3	A
0	180°	0.5 Cycles	3	A
0	0°	1 Cycles	3	A
0	180°	1 Cycles	3	A
0	0°	250 Cycles	3	A
0	180°	250 Cycles	3	A
70	0°	25 Cycles	3	A
70	180°	25 Cycles	3	A

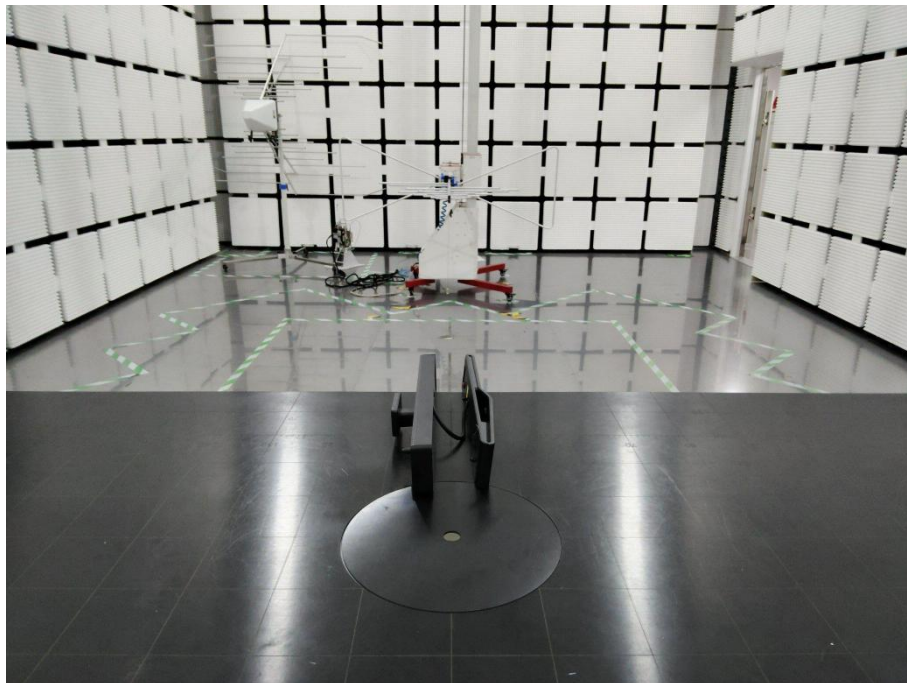
A: No degradation in the performance of the EUT was observed.

6. TEST SETUP PHOTOS

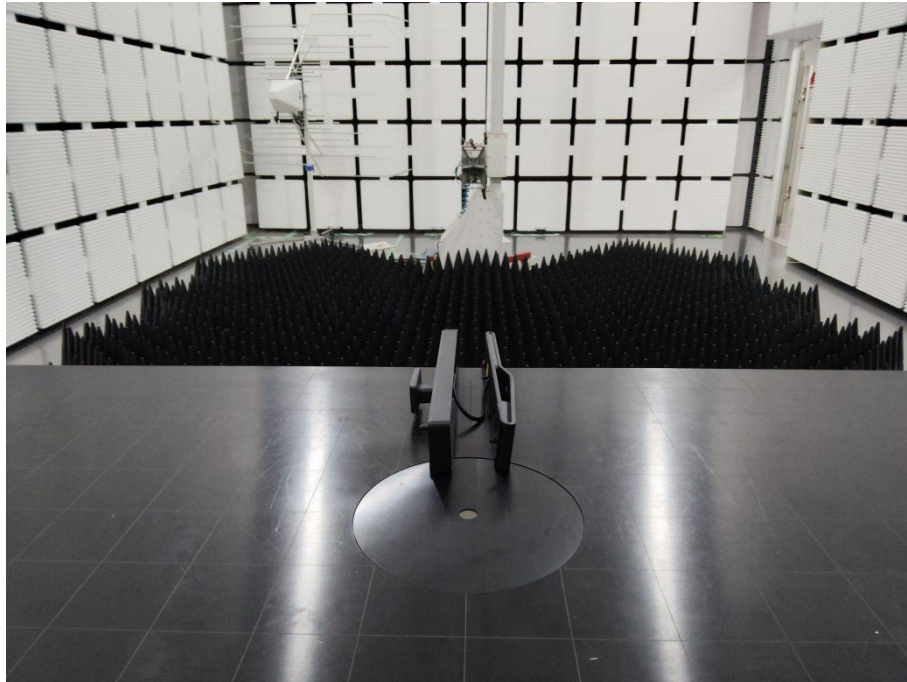
Conducted emissions (AC power port)



Radiated emissions (30MHz-1GHz)



Radiated emissions (above 1GHz)



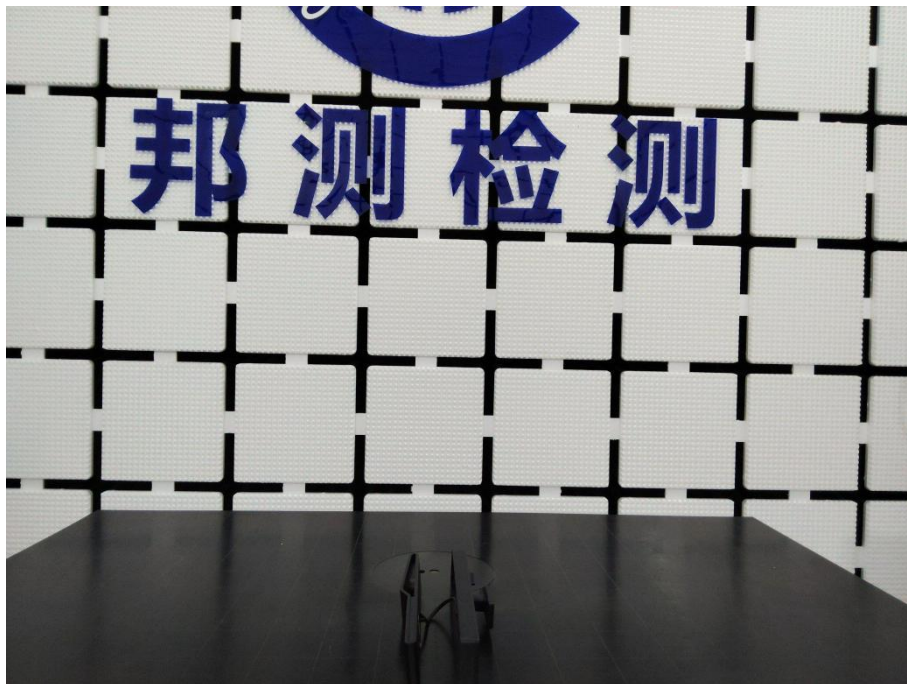
Voltage fluctuations and flicker



Electrostatic discharge



Radio frequency electromagnetic field (80 MHz to 6 000 MHz)



Fast transients, common mode (AC power port)
Surges (AC power port)



Radio frequency, common mode 0,15 MHz to 80 MHz (AC power port)



Voltage dips and interruptions



7. EXTERNAL AND INTERNAL PHOTOS

Please refer to RF report: CISRR26082037201

-----End of the report-----