

Prüfbericht-Nr.: <i>Test report no.:</i>	CN26TWEW 001	Auftrags-Nr.: <i>Order no.:</i>	326187977	Seite 1 von 49 Page 1 of 49
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	2089836	Auftragsdatum: <i>Order date:</i>	2026-05-21	
Auftraggeber: <i>Client:</i>	Pylon Technologies Co., Ltd. No.300, Miaoqiao Road, Kangqiao Town, Pudong New Area, 201315 Shanghai P.R. China			
Prüfgegenstand: <i>Test item:</i>	Lithium Iron Phosphate Battery Energy Storage System			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	Optim US-A1-M7-A-250/522-EU-xx, Optim US-A1-M7-A-248/522-EU-xx (where xx=01, 02, 03, 04, or 05)			
Auftrags-Inhalt: <i>Order content:</i>	TÜV Rheinland - EMC service			
Prüfgrundlage: <i>Test specification:</i>	EN IEC 61000-6-2:2019 EN IEC 61000-6-4:2019 EN 61000-6-7:2015		IEC 61000-6-2:2016 IEC 61000-6-4:2018 IEC 61000-6-7:2014	
Wareneingangsdatum: <i>Date of sample receipt:</i>	2026-06-25			
Prüfmuster-Nr.: <i>Test sample no.:</i>	Engineering Sample			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to clause 1.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i> Max Min	X	genehmigt von: <i>authorized by:</i> Feng Ye	X	
Datum: <i>Date:</i> 2026-07-20		Ausstellungsdatum: <i>Issue date:</i> 2026-07-20		
Stellung / Position:	Sachverständige(r)/Expert	Stellung / Position:	Sachverständige(r)/Expert	
Sonstiges / <i>Other:</i>	The test requirements are identical in EN IEC/EN and IEC standards. Therefore, all tests were performed according to EN IEC and EN standards.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
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Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

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Page 3 of 49**Revision history of test report:**

Report number	Issue date	Contents and reason for change if appropriate
CN26TWEW 001	2026-07-20	Initial release.

Test Summary

5.1.1 RADIATED EMISSIONS – ENCLOSURE PORT*RESULT: Pass***5.1.2 CONDUCTED EMISSIONS - LOW VOLTAGE AC MAINS PORT***RESULT: Pass***5.1.3 CONDUCTED EMISSIONS - WIRED NETWORK PORT***RESULT: Pass***5.2.1 RADIO-FREQUENCY ELECTROMAGNETIC FIELD, AMPLITUDE MODULATED***RESULT: Pass***5.2.2 ELECTROSTATIC DISCHARGE***RESULT: Pass***5.2.3 POWER-FREQUENCY MAGNETIC FIELD***RESULT: Pass***5.2.4 FAST TRANSIENTS***RESULT: Pass***5.2.5 RADIO-FREQUENCY COMMON MODE***RESULT: Pass***5.2.6 SURGES***RESULT: Pass***5.2.7 VOLTAGE DIPS AND INTERRUPTIONS***RESULT: Pass***5.2.8 1.5 – 150 kHz CONDUCTED COMMON MODE VOLTAGE***RESULT: Pass*

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1 Test Sites

1.1 Test Facilities

Laboratory: Sainuotek (Jiaxing) Service Co., Ltd.

Address: Building 1, No.1515, Shunze Road, Daqiao, Nanhu District, Jiaxing, Zhejiang, China

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

1.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Conducted Disturbance				
Test Receiver	ROHDE&SCHWARZ	ESW 8	100944	2027/03/06
LISN	SCHWARZBECK	NNLK 8130	00442	2026/12/11
LISN	SCHWARZBECK	CAT5 8158	3045	2026/12/21
Attenuator	SCHWARZBECK	VTSD-9561-F	01025	2026/12/11
Attenuator	BOYANG	BY-N-50W-20dB	N/A	2026/12/11
Radiated Disturbance (10m Chamber)				
Broadband Antenna	SCHWARZBECK	VULB 9168	1425	2027/01/25
Test Receiver	ROHDE&SCHWARZ	ESW 8	100944	2027/03/06
Horn antenna	SCHWARZBECK	BBHA 9120D	00331	2027/03/06
Preset Amplifier	HP	8447D	2944A06859	2026/12/11
Radio frequency electromagnetic field (80MHz to 6000MHz)				
Signal Generator	Agilent	N5181A	MY50141952	2026/12/11
Power Probe	ROHDE&SCHWARZ	NRP-Z11	117740	2026/12/18
Power Probe	ROHDE&SCHWARZ	NRP-Z11	119484	2026/12/18
EMS Antenna	SCHWARZBECK	STLP 9129	3045	N/A
EMS Antenna	SCHWARZBECK	VULB 9162	521	2027/01/03
Power Amplifier	MICOTOP	MPA-20-1000-600	MPA2210368	2026/12/18
Power Amplifier	MICOTOP	MPA-1000-6000-200	MPA2210369	2026/12/18
Electrostatic discharge				
ESD Test System	3C TEST	EDS 30V	ES031000422063	2027/01/14
Radio frequency, common mode				
CS test system	Lioncel	RIS-6091-85	221002	2026/12/11
CDN	Lioncel	CDN-T8	0220704	2026/12/11
Current coupling clamp	FCC	F-120-6A	1977504	2026/12/11
Attenuator	Lioncel	WDTS150-6-2.5-A	220819147	2026/12/11
Fast transients & Surge				
Compact Immunity Test System	3C TEST	CCS 500	ES014000524037	2026/12/18
HV High-Power CDN for EFT/Burst and Surge Immunity Tests	3C TEST	SEPN 69100T	ES066003525001	2026/12/18
Capacitive clamp	Lioncel	EFTC	22062119	2026/12/18

Voltage Dips and Interruptions				
Power Supply	Chroma	61860	6186003800672	2027/04/15
Power-frequency magnetic field				
Magnetic Field Tester	Lioncel	PFM-801C-C	CC-0221101	2026/12/18
Magnetic Field Tester	Lioncel	PFM-801C-T	CT-0221102	2026/12/18
Magnetic Field coil	Lioncel	PFM-801C-F	CF-0221102	2026/12/18
Conducted common-mode voltage				
Low Frequency Conducted Immunity Generator	Lioncel	CLF-1619	CLF-1619-0240102	2027/6/25
Transient Test Module	Lioncel	CLF-1619-ST	CLF1619ST-0240102	2027/6/25
AC coupling network	Lioncel	CNM4-32	CNM432-0231203	2027/6/25
Signal coupling network	Lioncel	CNT-2	CNT2-0231101	2027/6/25

1.3 Uncertainty of Measurement

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

Table 2: Measurement Uncertainty

Test Items		Measurement Uncertainty
Conducted Emission	9kHz to 30MHz	3.1dB
Radiated Emission	30M~1GHz	4.8dB
	1GHz~6GHz	4.7dB

2 General Product Information

2.1 Product Function and Intended Use

The product is a Lithium Iron Phosphate Battery Energy Storage System for energy storage use.

For further information, refer to the user's manual.

2.2 Ratings and System Details

Table 3: Product description

General Information of EUT			
Product name		Lithium Iron Phosphate Battery Energy Storage System	
Type/model		Optim US-A1-M7-A-250/522-EU-xx (where xx=01, 02, 03, 04, or 05)	Optim US-A1-M7-A-248/522-EU-xx (where xx=01, 02, 03, 04, or 05)
AC side Parameters	Rated Power (kW)	125*2	124*2
	Rated Voltage (VAC)	230/400	230/400
	Max. Current (A)	198*2	196.8*2
	Wiring Method	3P+N+PE	3P+N+PE
	Frequency (Hz)	50/60	50/60
DC side Parameters	Rated Energy (kWh)	261*2	261*2
	Rated Voltage (VDC)	832	832
	Voltage Range (VDC)	702~936	702~936
	Max. Current (A)	196*2	195*2

Identities and differences:

1. This report includes 10 models of Lithium Iron Phosphate Battery Energy Storage System: Optim US-A1-M7-A-250/522-EU-xx, Optim US-A1-M7-A-248/522-EU-xx (where xx=01, 02, 03, 04, or 05), 'xx' represents the selection of fire and explosion safety configurations, as follows:

01: explosion relief panel;

02: explosion relief panel and water fire protection;

03: explosion ventilation system (combustible gas detector + explosion-proof ventilation fan);

04: explosion ventilation system (combustible gas detector + explosion-proof ventilation fan) and water fire protection;

05: explosion ventilation system (combustible gas detector + explosion-proof ventilation fan), water fire protection and explosion relief panel.

According to the manufacturer's declaration, all the models are similar in hardware, except for the differences mentioned above, the different rated power adjusted via software. Therefore, the model Optim US-A1-M7-A-250/522-EU-05 was chosen to perform the EMC tests as representative. The test configuration was specified by the manufacturer. The detailed ports information is as below:

Port/Line Name @EUT	Type	Typical length [m]
AC power port	AC power port, unshielded	Undefined
Signal port	LAN, shielded	Undefined

2.3 Independent Operation Modes

The basic operation modes are:

- A. Charge
- B. Discharge

2.4 Noise Generating and Noise Suppressing Parts

For details refer to the Circuit Diagram.

2.5 Submitted Documents

- User Manual
- Rating 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 radiation level. The test modes were adapted accordingly in reference to the instructions for use.

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

3.2 Test Operation and Relevant Description

Test operation refers to test setup in chapter 5 and chapter 6.

3.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

Kind of Equipment	Manufacturer	Type	S/N
Test Computer	ZH 99	HP	/

3.4 Countermeasures to Achieve EMC Compliance

No additional measures were employed to achieve compliance.

4 Immunity Performance Criteria

The performance criterion to be used during test is detailed below:

4.1 Performance Criteria of EN IEC 61000-6-2

The performance criterion for the immunity tests in clause 4 of EN IEC 61000-6-2:2019 are listed as follows:

Performance criterion A

The EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. If the performance level is not specified by the manufacturer, this may be derived from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.

Performance criterion B

The EUT shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. The performance level may be replaced by a permissible loss of performance. However, during the test degradation of performance is allowed but no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.

Performance criterion C

Temporary loss of function is allowed during the test, provided the function is self-recoverable or can be restored by the operation of the controls.

4.2 Performance Criteria of EN IEC 61000-6-7

The performance criterion for the immunity tests in clause 5 of EN 61000-6-7:2015 are listed as follows:

Performance criteria are used to describe and to assess the reaction of the EUT when exposed to electromagnetic phenomena. Regarding safety applications for equipment within the scope of this standard, a particular performance criterion DS is defined as follows:

- a) The functions of the EUT intended for use in safety applications
 - 1) are not affected outside their specification, or
 - 2) may be affected temporarily or permanently (even by destruction of components), if the EUT reacts to a disturbance in a way that a detectable and defined state (or states) of the EUT is(are)
 - i) maintained, or
 - ii) achieved within a stated time.
- b) The functions not intended for use in safety applications may be disturbed temporarily or permanently.

5 Test Results of EMC Requirement

5.1 Test Results of EMISSION

5.1.1 Radiated emissions – enclosure port

RESULT:

Pass

Test Specification

Test standard	: EN IEC 61000-6-4:2019
Test requirement	: EN IEC 61000-6-4:2019, Clause 9, Table 3
Frequency range	: 30MHz – 6GHz
Limit	: EN IEC 61000-6-4:2019, Table 3 Quasi-peak limits (10 m measurement distance): 30 – 230 MHz, 40dB μ V/m; 230 – 1000 MHz, 47dB μ V/m Peak & Average limits (3 m measurement distance): 1000 – 3000 MHz, Peak 76dB μ V/m, Average 56dB μ V/m; 3000 – 6000 MHz, Peak 80dB μ V/m, Average 60dB μ V/m

Test Setup

Date of testing	: Refer to test data
Test mode	: A, B
Test ports	: Enclosure
Ambient temperature	: Refer to test data
Relative humidity	: Refer to test data
Atmospheric pressure	: 100.4 kPa

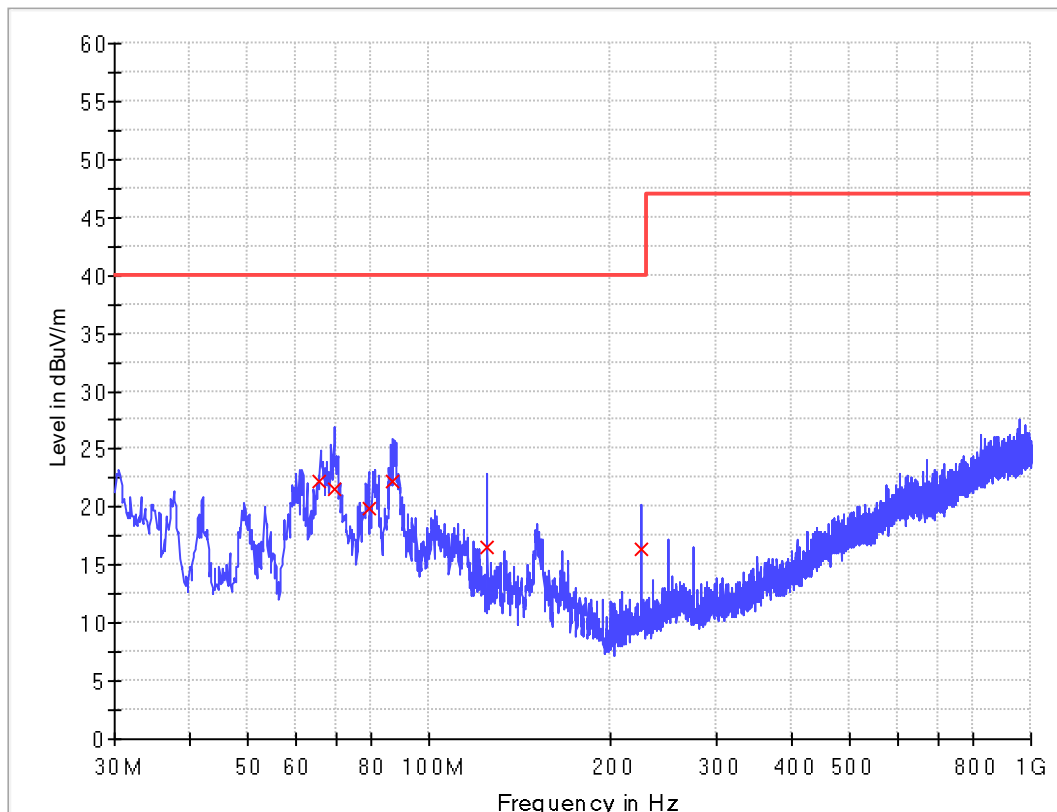
Test results:

Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: A
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
65.840000	22.16	20.0	120.000	400.0	H	95.0	13.1	17.84	40.0
69.640000	21.55	20.0	120.000	400.0	H	268.0	12.5	18.45	40.0
79.360000	19.84	20.0	120.000	400.0	H	202.0	10.5	20.16	40.0
87.120000	22.19	20.0	120.000	400.0	H	43.0	9.5	17.81	40.0
124.920000	16.49	20.0	120.000	400.0	H	136.0	13.2	23.51	40.0
224.960000	16.30	20.0	120.000	400.0	H	0.0	12.1	23.70	40.0

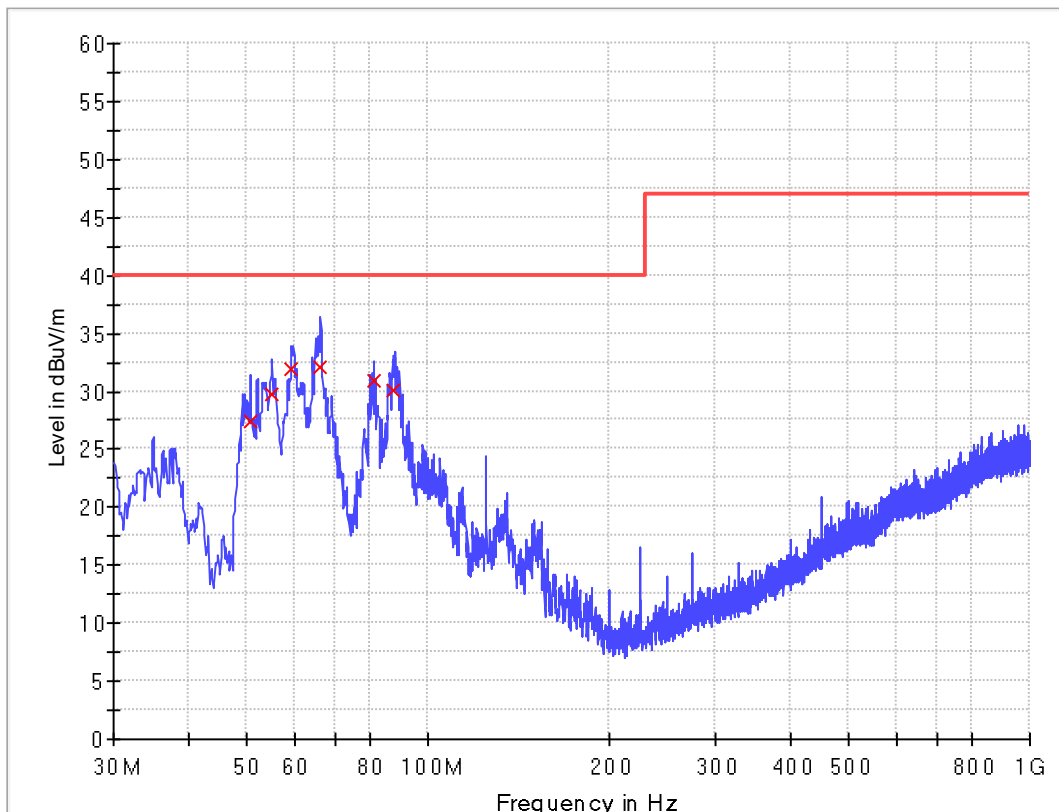


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: A
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
50.600000	27.44	20.0	120.000	100.0	V	0.0	14.7	12.56	40.0
54.960000	29.74	20.0	120.000	100.0	V	350.0	14.4	10.26	40.0
59.360000	31.89	20.0	120.000	100.0	V	143.0	14.0	8.11	40.0
66.240000	32.01	20.0	120.000	100.0	V	102.0	13.0	7.99	40.0
81.160000	31.00	20.0	120.000	100.0	V	171.0	10.2	9.00	40.0
87.720000	30.07	20.0	120.000	100.0	V	263.0	9.4	9.93	40.0

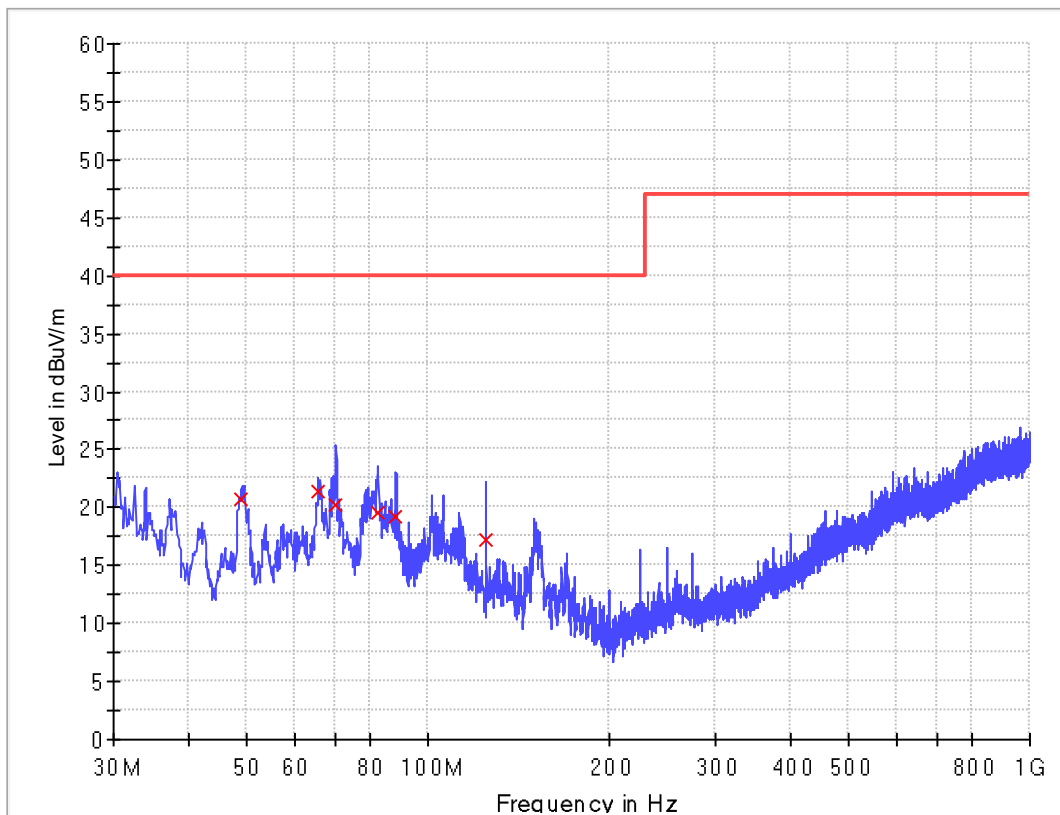


Common Information

Test Date : 2026.07.08 **Tested By** : Yang Aojie
EUT : Lithium Iron Phosphate Battery
 Energy Storage System **Model Number** : Optim US-A1-M7-A-250/522-EU-05
Power Supply : 400Vac/50Hz **Test Mode** : B
Condition : Temp:26.5°C, Humi:55% **Test Site** : 10m Chamber

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
48.920000	20.71	20.0	120.000	400.0	H	358.0	14.7	19.29	40.0
65.640000	21.32	20.0	120.000	400.0	H	105.0	13.1	18.68	40.0
70.240000	20.20	20.0	120.000	400.0	H	0.0	12.4	19.80	40.0
82.640000	19.62	20.0	120.000	400.0	H	155.0	10.0	20.38	40.0
88.440000	19.29	20.0	120.000	400.0	H	180.0	9.3	20.71	40.0
124.920000	17.17	20.0	120.000	400.0	H	199.0	13.2	22.83	40.0

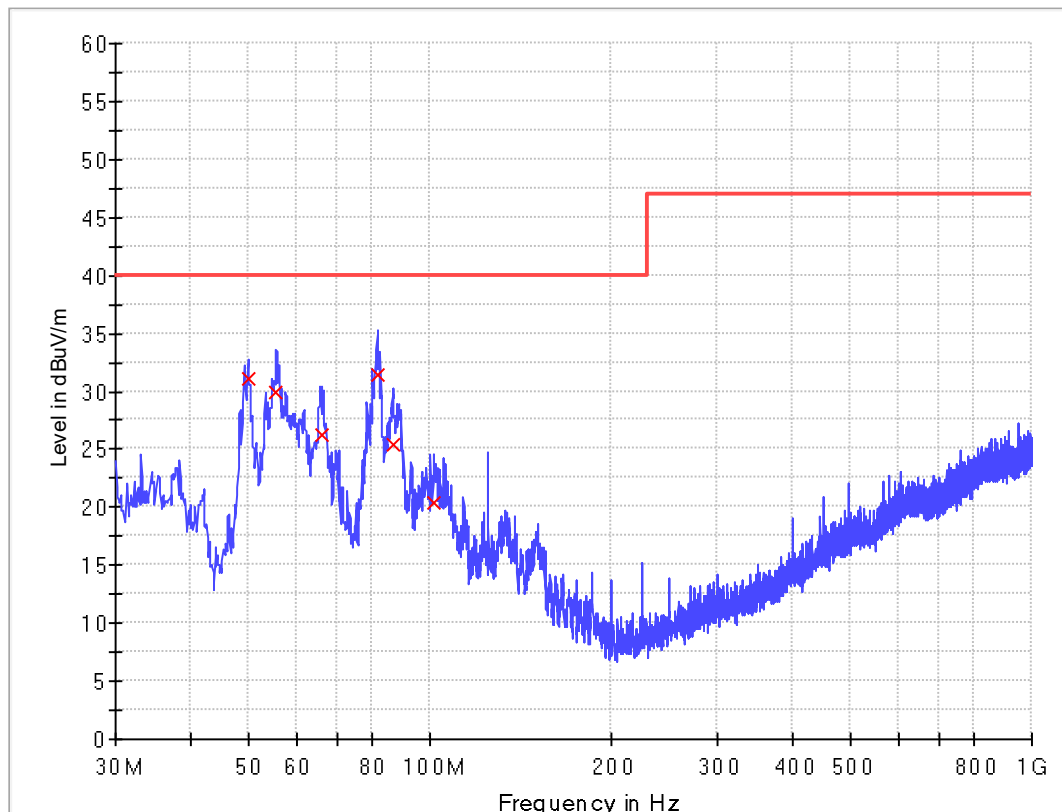


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: B
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
49.760000	31.15	20.0	120.000	100.0	V	347.0	14.7	8.85	40.0
55.480000	29.85	20.0	120.000	100.0	V	271.0	14.4	10.15	40.0
66.000000	26.31	20.0	120.000	100.0	V	214.0	13.0	13.69	40.0
81.640000	31.40	20.0	120.000	100.0	V	124.0	10.2	8.60	40.0
86.640000	25.39	20.0	120.000	100.0	V	52.0	9.5	14.61	40.0
101.640000	20.44	20.0	120.000	100.0	V	10.0	10.2	19.56	40.0

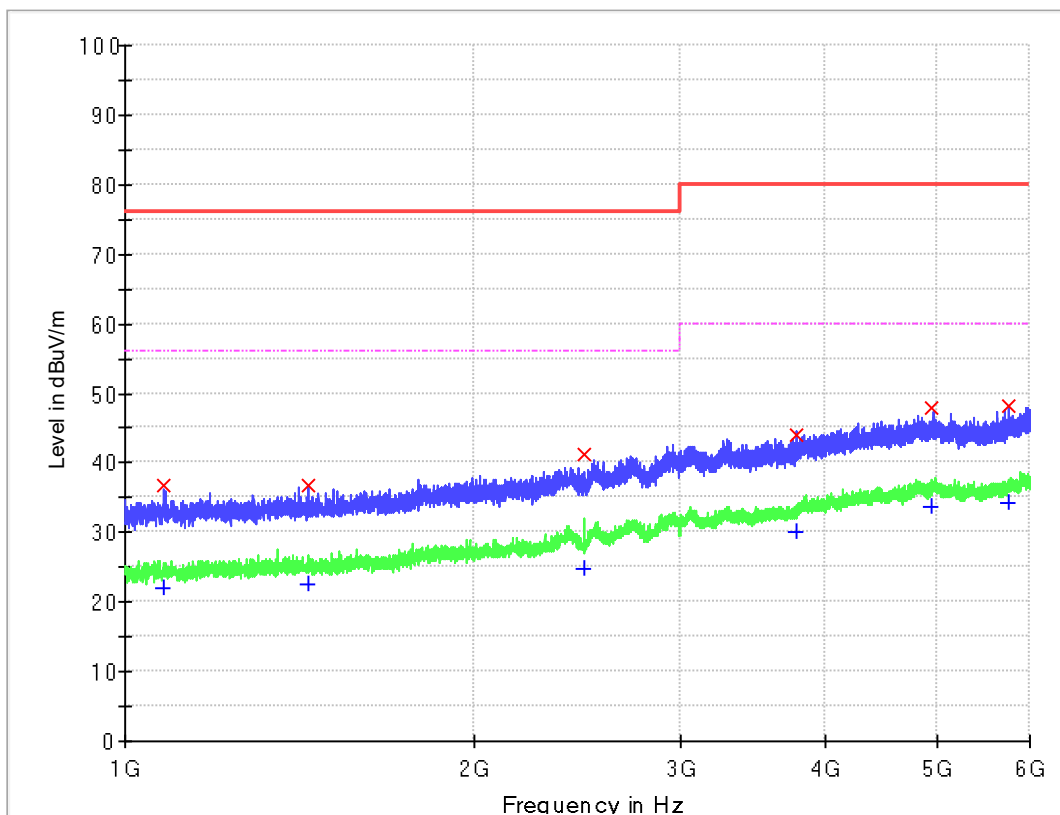


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: A
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber (3 m measurement distance)

Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
1078.4000	36.65	22.04	400.0	H	13.0	39.35	76.0	33.96	56.0
1439.6000	36.67	22.43	400.0	H	3.0	39.33	76.0	33.57	56.0
2480.0000	41.14	24.76	400.0	H	0.0	34.86	76.0	31.24	56.0
3784.8000	43.95	30.02	400.0	H	173.0	36.05	80.0	29.98	60.0
4944.8000	47.93	33.80	400.0	H	199.0	32.07	80.0	26.20	60.0
5761.6000	48.17	34.26	400.0	H	71.0	31.83	80.0	25.74	60.0

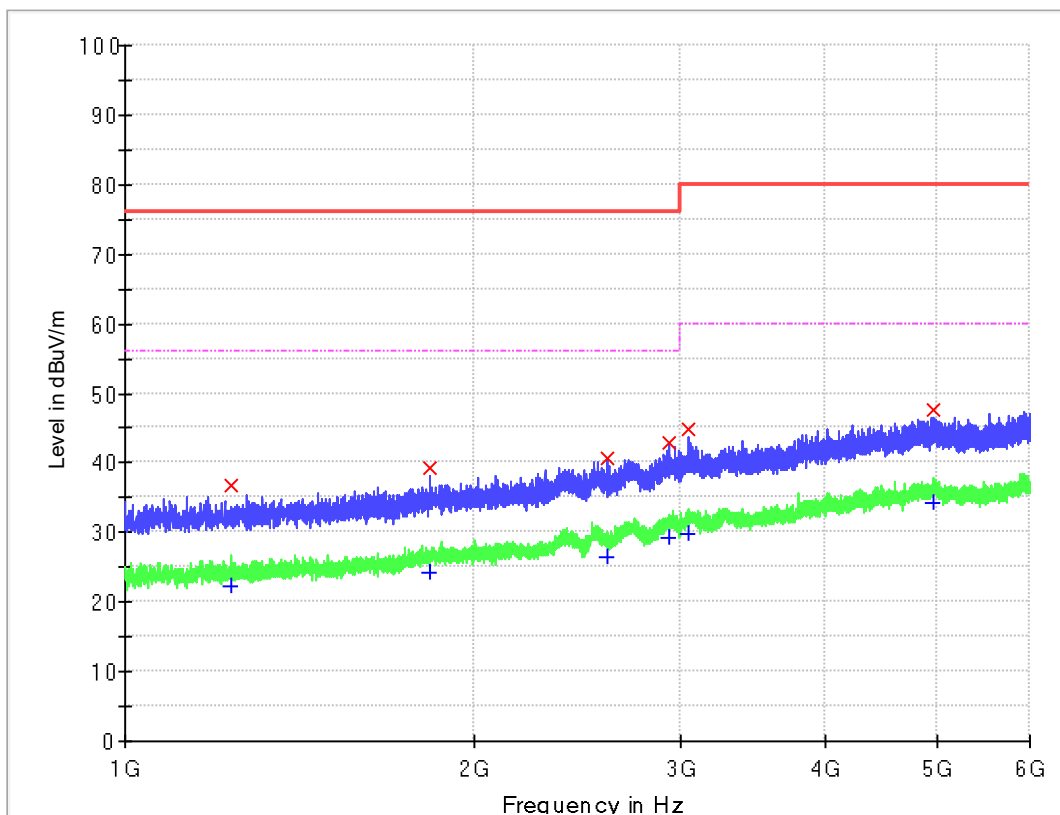


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: A
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber (3 m measurement distance)

Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
1234.000000	36.75	22.23	100.0	V	13.0	39.25	76.0	33.77	56.0
1828.800000	39.19	24.23	100.0	V	3.0	36.81	76.0	31.77	56.0
2602.400000	40.76	26.51	100.0	V	0.0	35.24	76.0	29.49	56.0
2936.400000	42.87	29.12	100.0	V	173.0	33.13	76.0	26.88	56.0
3053.600000	44.72	29.85	100.0	V	199.0	35.28	80.0	30.15	60.0
4959.600000	47.56	34.13	100.0	V	71.0	32.44	80.0	25.87	60.0

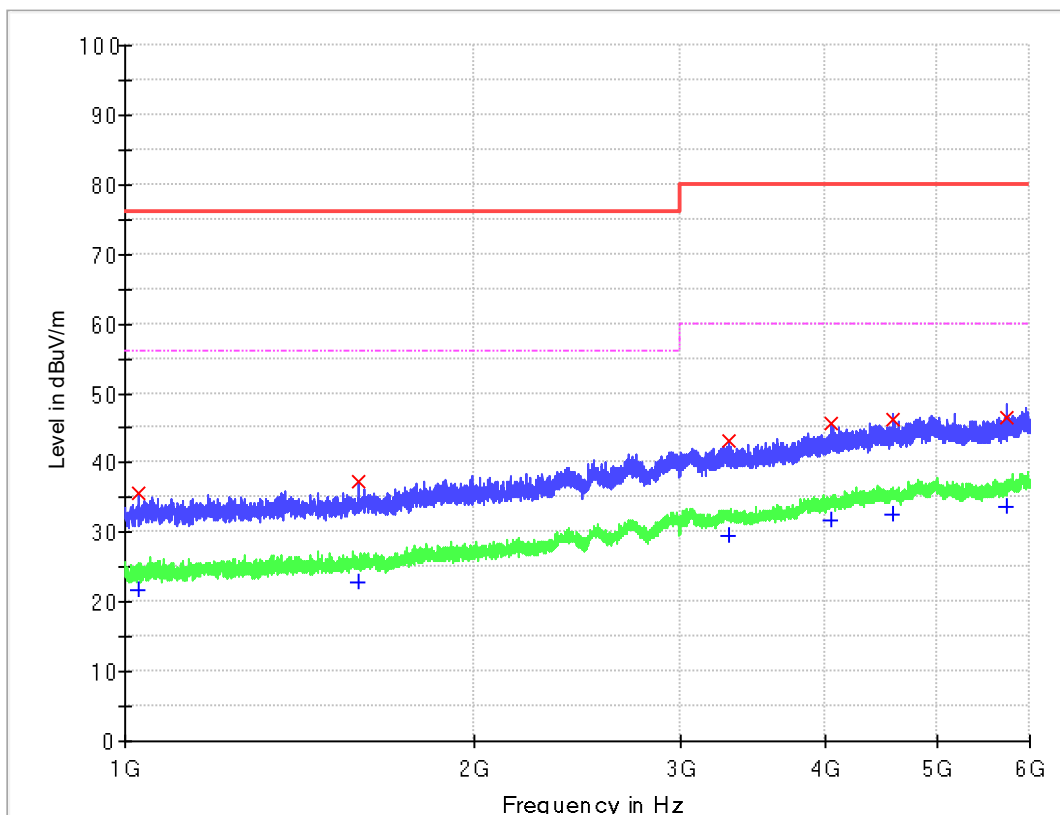


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: B
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber (3 m measurement distance)

Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
1028.000000	35.59	21.71	400.0	H	0.0	40.41	76.0	34.29	56.0
1589.600000	37.31	22.84	400.0	H	56.0	38.69	76.0	33.16	56.0
3304.000000	43.16	29.55	400.0	H	0.0	36.84	80.0	30.45	60.0
4042.400000	45.66	31.79	400.0	H	193.0	34.34	80.0	28.21	60.0
4572.400000	46.14	32.60	400.0	H	99.0	33.86	80.0	27.40	60.0
5724.400000	46.65	33.57	400.0	H	51.0	33.35	80.0	26.43	60.0

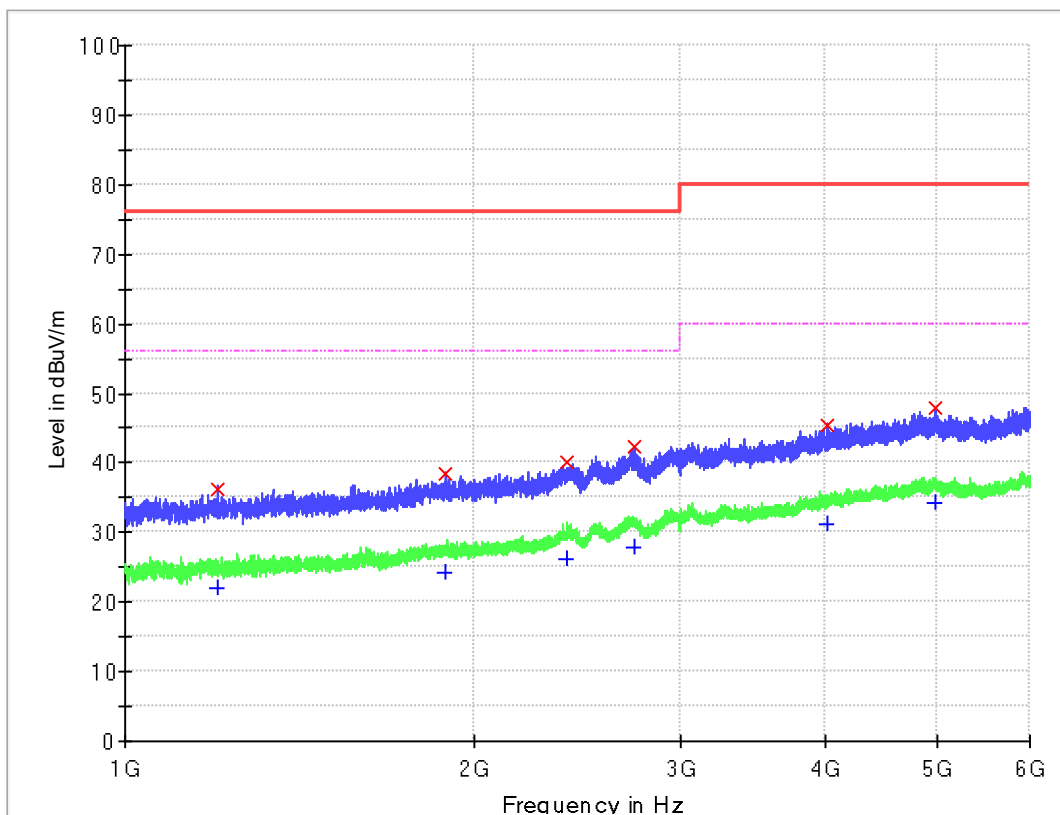


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: B
Condition	: Temp:26.5°C, Humi:55%	Test Site	: 10m Chamber (3 m measurement distance)

Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
1200.400000	36.21	21.93	100.0	V	3.0	39.79	76.0	34.07	56.0
1888.800000	38.34	24.10	100.0	V	0.0	37.66	76.0	31.90	56.0
2399.600000	40.10	26.26	100.0	V	0.0	35.90	76.0	29.74	56.0
2744.000000	42.22	27.85	100.0	V	333.0	33.78	76.0	28.15	56.0
4012.400000	45.27	31.27	100.0	V	19.0	34.73	80.0	28.73	60.0
4978.800000	47.92	34.17	100.0	V	71.0	32.08	80.0	25.83	60.0



5.1.2 Conducted emissions - low voltage AC mains port

RESULT:**Pass****Test Specification**

Test standard	: EN IEC 61000-6-4:2019
Test requirement	: EN IEC 61000-6-4:2019, Clause 9, Table 4
Frequency range	: 150kHz - 30MHz
Kind of test site	: 10m Semi-anechoic Chamber
Limit	: EN IEC 61000-6-4:2019, Table 4 Quasi-peak: 0.15 – 0.5 MHz, 79dB μ V; 0.5 – 30 MHz, 73dB μ V; Average: 0.15 – 0.5 MHz, 66dB μ V; 0.5 – 30 MHz, 60dB μ V

Test Setup

Date of testing	: Refer to test data
Test mode	: A, B
Test ports	: AC power port
Ambient temperature	: Refer to test data
Relative humidity	: Refer to test data
Atmospheric pressure	: 100.4 kPa

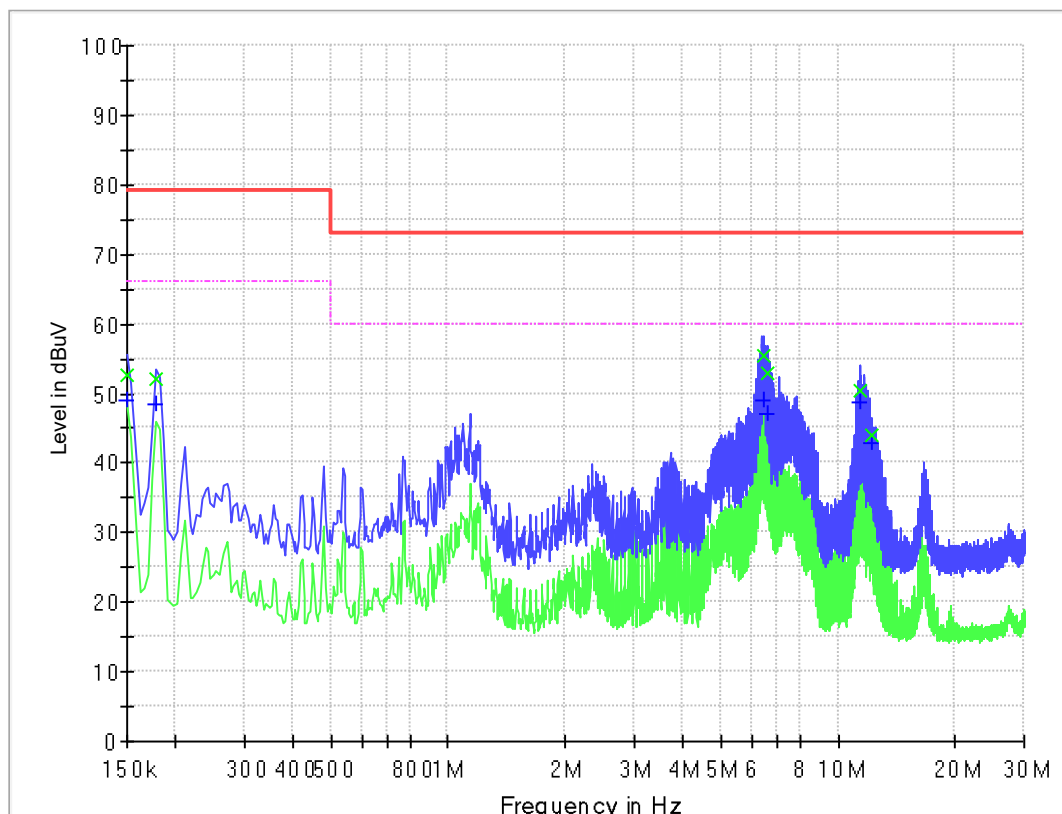
Test results:

Common Information

Test Date : 2026.07.08
Tested By : Yang Aojie
EUT : Lithium Iron Phosphate Battery
Model Number : Optim US-A1-M7-A-250/522-EU-05
Energy Storage System
Power Supply : 400Vac/50Hz
Test Mode : A
Condition : Temp:26.5°C, Humi:55%
LISN : NNLK 8130
Comment : AC power port, L1

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.150000	52.77	48.96	20.0	9.000	L1	28.6	26.23	79.0	17.04	66.0
0.178000	52.09	48.34	20.0	9.000	L1	28.6	26.91	79.0	17.66	66.0
6.418000	55.43	49.12	20.0	9.000	L1	29.0	17.57	73.0	10.88	60.0
6.598000	52.90	47.11	20.0	9.000	L1	29.0	20.10	73.0	12.89	60.0
11.438000	50.32	48.62	20.0	9.000	L1	29.2	22.68	73.0	11.38	60.0
12.214000	43.91	42.80	20.0	9.000	L1	29.2	29.09	73.0	17.20	60.0

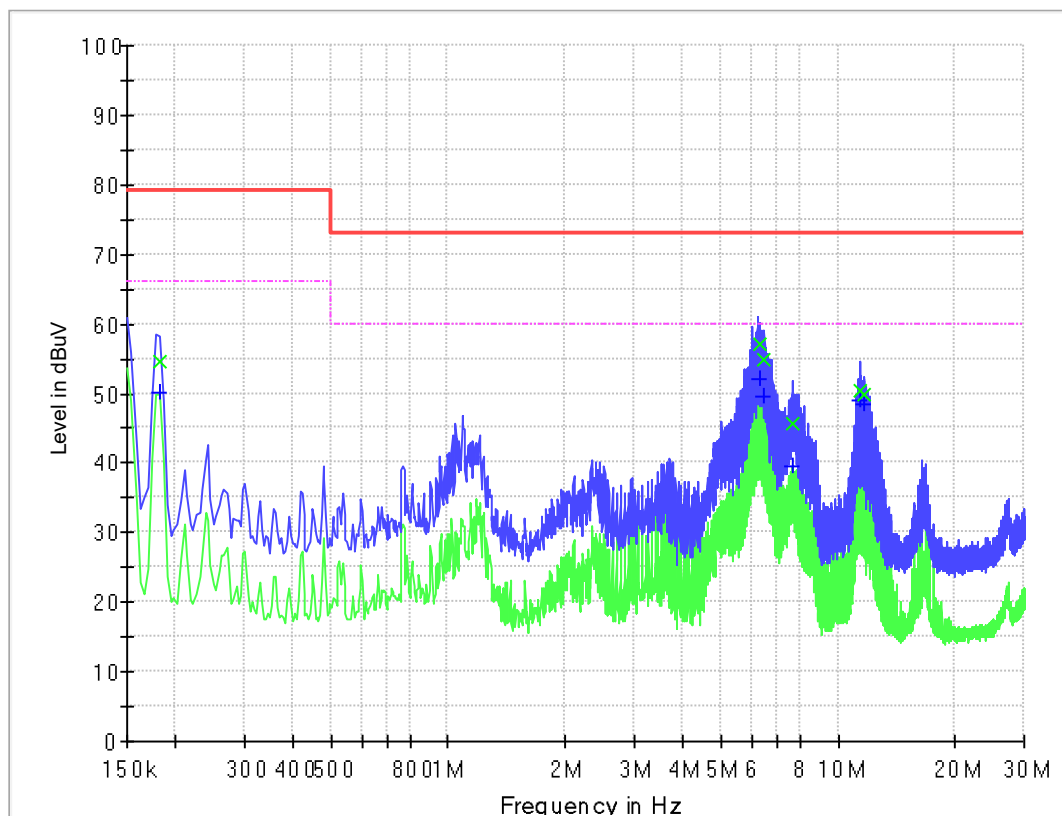


Common Information

Test Date : 2026.07.08
Tested By : Yang Aojie
EUT : Lithium Iron Phosphate Battery
Model Number : Optim US-A1-M7-A-250/522-EU-05
Energy Storage System
Power Supply : 400Vac/50Hz
Test Mode : A
Condition : Temp:26.5°C, Humi:55%
LISN : NNLK 8130
Comment : AC power port, L2

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.182000	54.54	50.23	20.0	9.000	L2	28.6	24.46	79.0	15.77	66.0
6.298000	57.24	52.10	20.0	9.000	L2	29.0	15.76	73.0	7.90	60.0
6.478000	54.89	49.71	20.0	9.000	L2	29.0	18.11	73.0	10.29	60.0
7.678000	45.80	39.57	20.0	9.000	L2	29.1	27.20	73.0	20.43	60.0
11.438000	50.47	48.93	20.0	9.000	L2	29.2	22.53	73.0	11.07	60.0
11.686000	49.91	48.55	20.0	9.000	L2	29.2	23.09	73.0	11.45	60.0

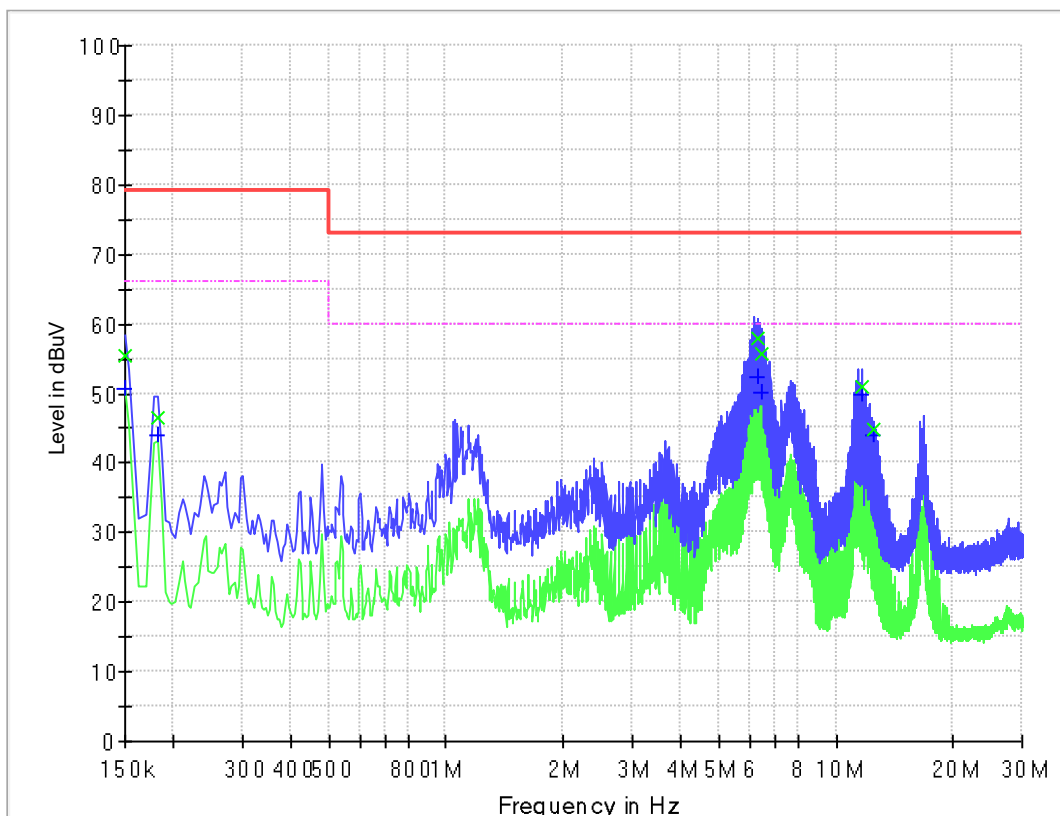


Common Information

Test Date : 2026.07.08
Tested By : Yang Aojie
EUT : Lithium Iron Phosphate Battery
Model Number : Optim US-A1-M7-A-250/522-EU-05
Energy Storage System
Power Supply : 400Vac/50Hz
Test Mode : A
Condition : Temp:26.5°C, Humi:55%
LISN : NNLK 8130
Comment : AC power port, L3

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.150000	55.39	50.70	20.0	9.000	L3	28.6	23.61	79.0	15.30	66.0
0.182000	46.64	43.99	20.0	9.000	L3	28.6	32.36	79.0	22.01	66.0
6.298000	58.00	52.39	20.0	9.000	L3	29.0	15.00	73.0	7.61	60.0
6.478000	55.75	50.06	20.0	9.000	L3	29.0	17.25	73.0	9.94	60.0
11.638000	51.01	49.75	20.0	9.000	L3	29.3	21.99	73.0	10.25	60.0
12.474000	44.84	43.91	20.0	9.000	L3	29.3	28.16	73.0	16.09	60.0

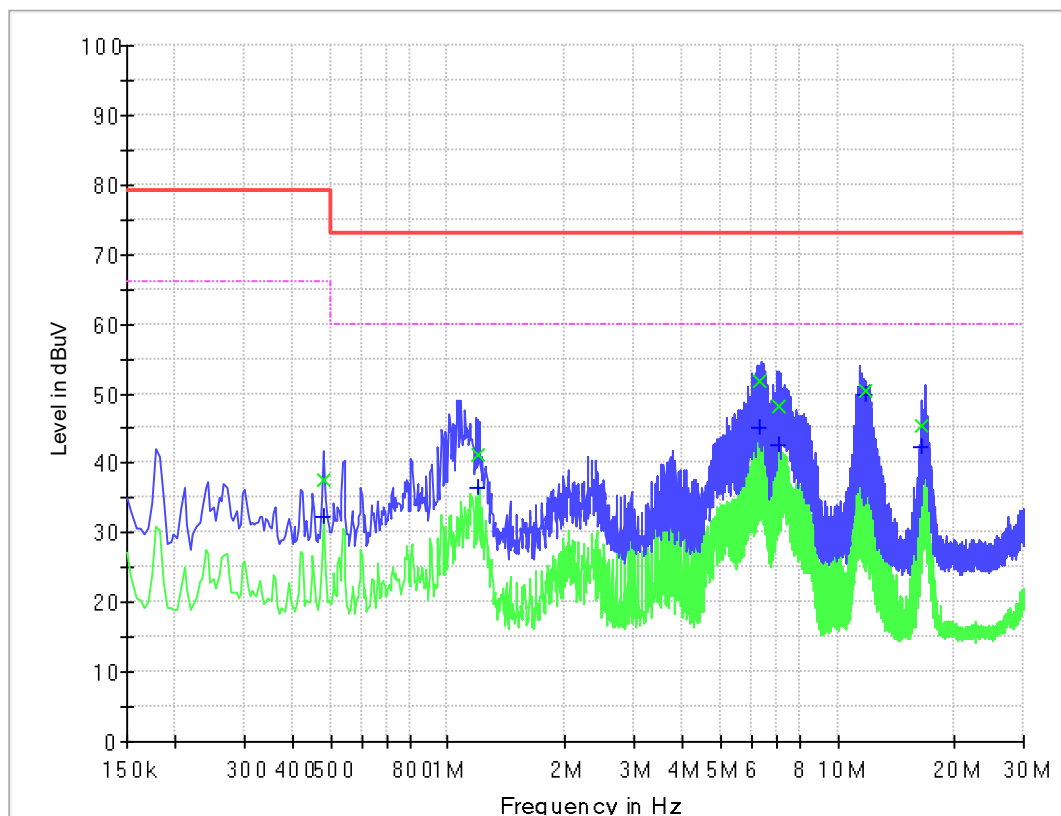


Common Information

Test Date : 2026.07.08
EUT : Lithium Iron Phosphate Battery
 Energy Storage System
Power Supply : 400Vac/50Hz
Condition : Temp:26.5°C, Humi:55%
Comment : AC power port, N
Tested By : Yang Aojie
Model Number : Optim US-A1-M7-A-250/522-EU-05
Test Mode : A
LISN : NNLK 8130

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.478000	37.51	32.26	20.0	9.000	N	28.7	41.49	79.0	33.74	66.0
1.198000	41.18	36.61	20.0	9.000	N	28.7	31.82	73.0	23.39	60.0
6.298000	51.81	45.14	20.0	9.000	N	29.0	21.19	73.0	14.86	60.0
7.078000	48.17	42.63	20.0	9.000	N	29.0	24.83	73.0	17.37	60.0
11.750000	50.48	49.74	20.0	9.000	N	29.3	22.52	73.0	10.26	60.0
16.482000	45.35	42.47	20.0	9.000	N	29.4	27.65	73.0	17.53	60.0

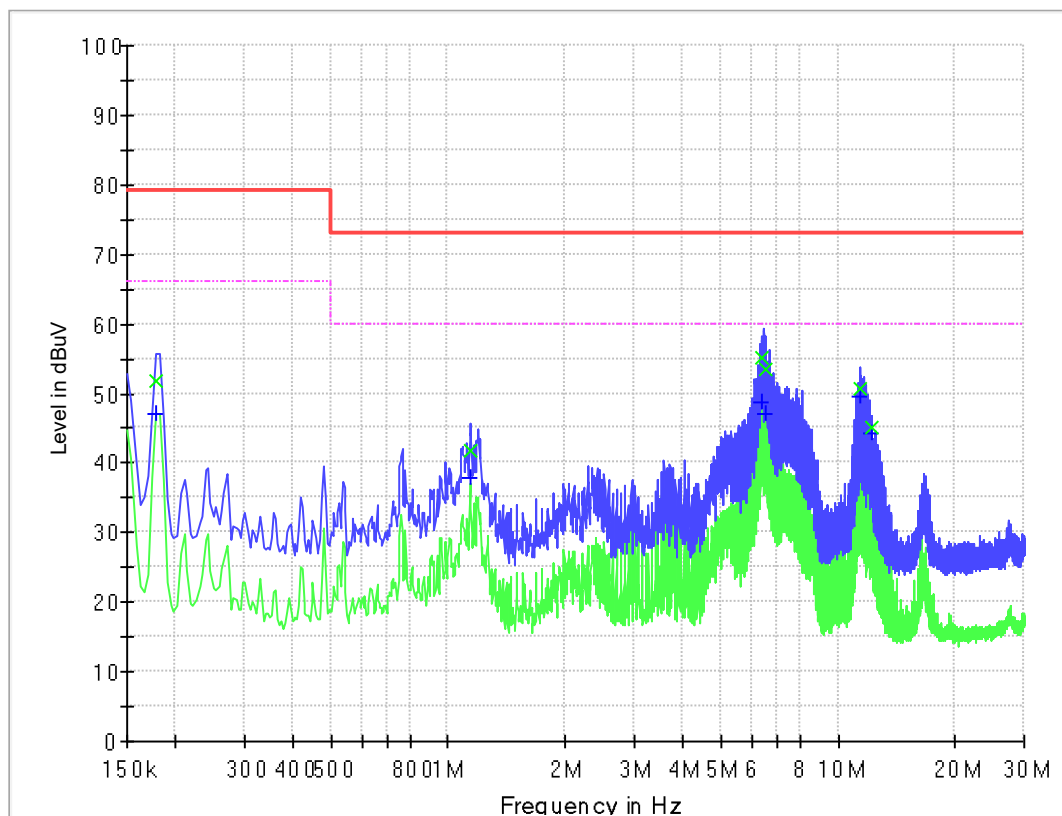


Common Information

Test Date : 2026.07.08
Tested By : Yang Aojie
EUT : Lithium Iron Phosphate Battery
Model Number : Optim US-A1-M7-A-250/522-EU-05
Energy Storage System
Power Supply : 400Vac/50Hz
Test Mode : B
Condition : Temp:26.5°C, Humi:55%
LISN : NNLK 8130
Comment : AC power port, L1

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.178000	51.89	47.04	20.0	9.000	L1	28.6	27.11	79.0	18.96	66.0
1.138000	41.70	37.82	20.0	9.000	L1	28.7	31.30	73.0	22.18	60.0
6.358000	55.07	48.65	20.0	9.000	L1	29.0	17.93	73.0	11.35	60.0
6.538000	53.59	46.97	20.0	9.000	L1	29.0	19.41	73.0	13.03	60.0
11.438000	50.65	49.53	20.0	9.000	L1	29.2	22.35	73.0	10.47	60.0
12.190000	45.05	44.37	20.0	9.000	L1	29.2	27.95	73.0	15.63	60.0

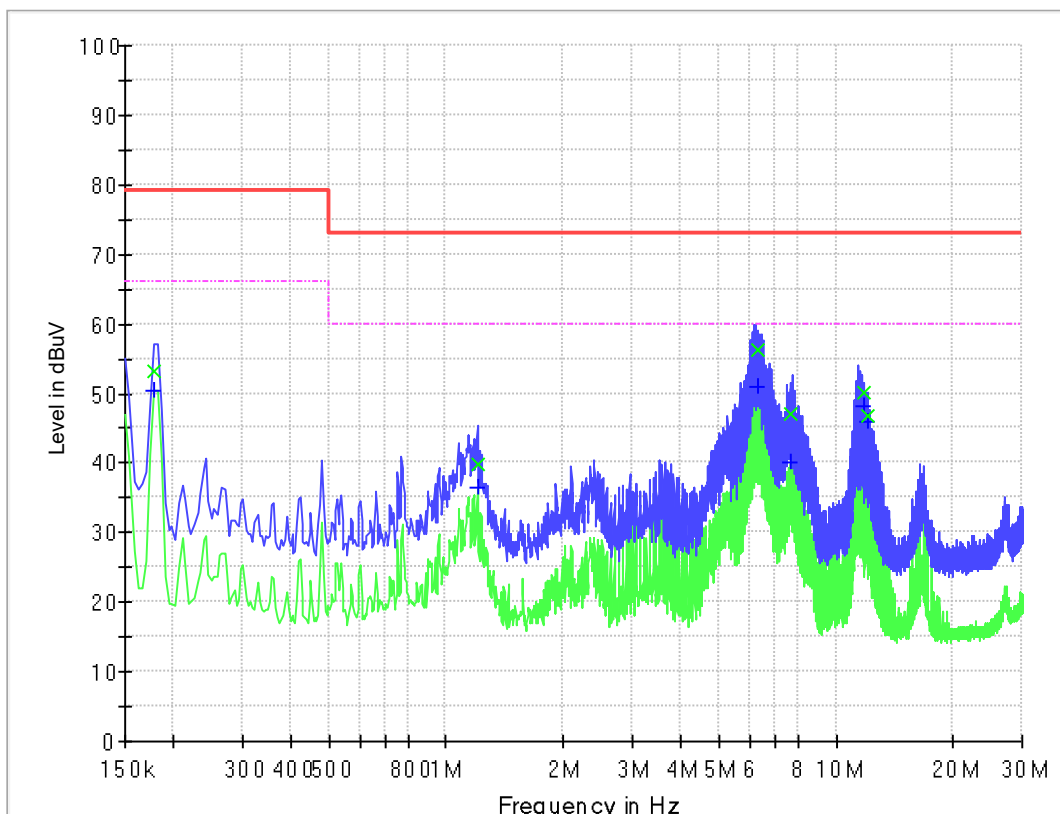


Common Information

Test Date : 2026.07.08
Tested By : Yang Aojie
EUT : Lithium Iron Phosphate Battery
Model Number : Optim US-A1-M7-A-250/522-EU-05
Energy Storage System
Power Supply : 400Vac/50Hz
Test Mode : B
Condition : Temp:26.5°C, Humi:55%
LISN : NNLK 8130
Comment : AC power port, L2

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.178000	53.23	50.55	20.0	9.000	L2	28.6	25.77	79.0	15.45	66.0
1.202000	39.84	36.59	20.0	9.000	L2	28.7	33.16	73.0	23.41	60.0
6.298000	56.35	51.09	20.0	9.000	L2	29.0	16.65	73.0	8.91	60.0
7.678000	47.04	40.17	20.0	9.000	L2	29.1	25.96	73.0	19.83	60.0
11.750000	50.01	48.16	20.0	9.000	L2	29.2	22.99	73.0	11.84	60.0
12.066000	46.89	46.09	20.0	9.000	L2	29.2	26.11	73.0	13.91	60.0

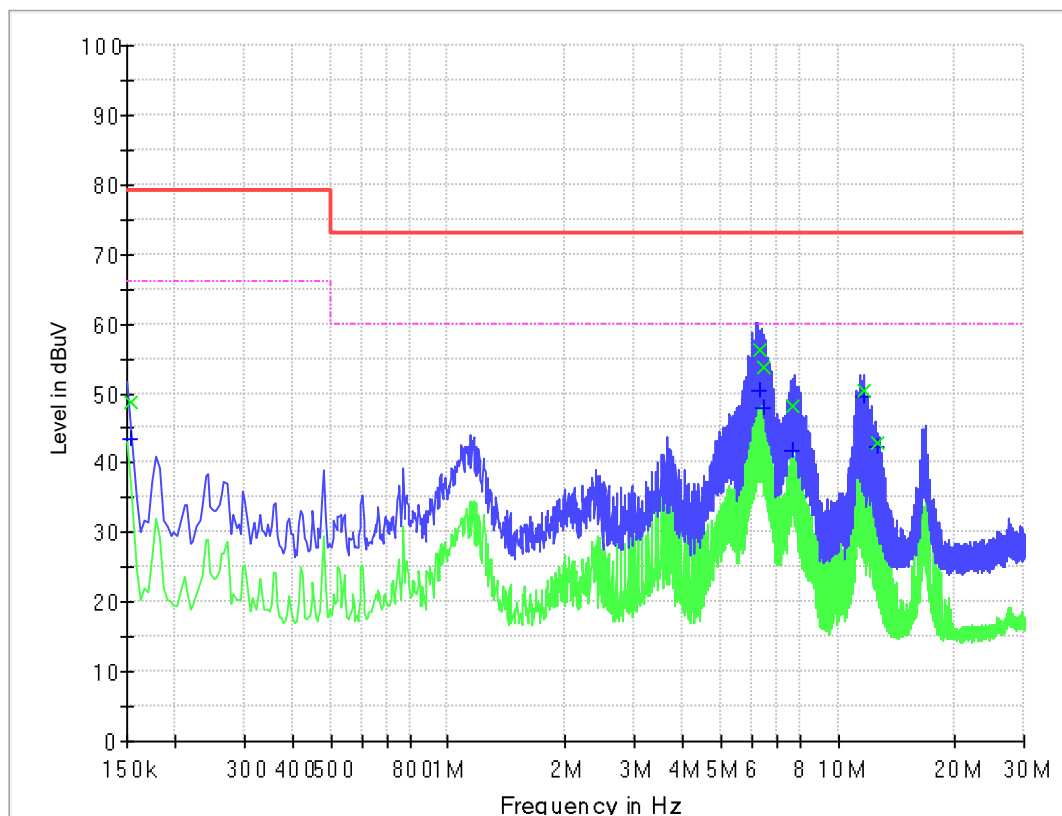


Common Information

Test Date : 2026.07.08 **Tested By** : Yang Aojie
EUT : Lithium Iron Phosphate Battery
 Energy Storage System **Model Number** : Optim US-A1-M7-A-250/522-EU-05
Power Supply : 400Vac/50Hz **Test Mode** : B
Condition : Temp:26.5°C, Humi:55% **LISN** : NNLK 8130
Comment : AC power port, L3

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
0.154000	48.62	43.47	20.0	9.000	L3	28.6	30.38	79.0	22.53	66.0
6.298000	56.15	50.47	20.0	9.000	L3	29.0	16.85	73.0	9.53	60.0
6.478000	53.84	47.93	20.0	9.000	L3	29.0	19.16	73.0	12.07	60.0
7.618000	48.28	41.80	20.0	9.000	L3	29.1	24.72	73.0	18.20	60.0
11.638000	50.36	49.56	20.0	9.000	L3	29.3	22.64	73.0	10.44	60.0
12.666000	43.01	42.42	20.0	9.000	L3	29.3	29.99	73.0	17.58	60.0

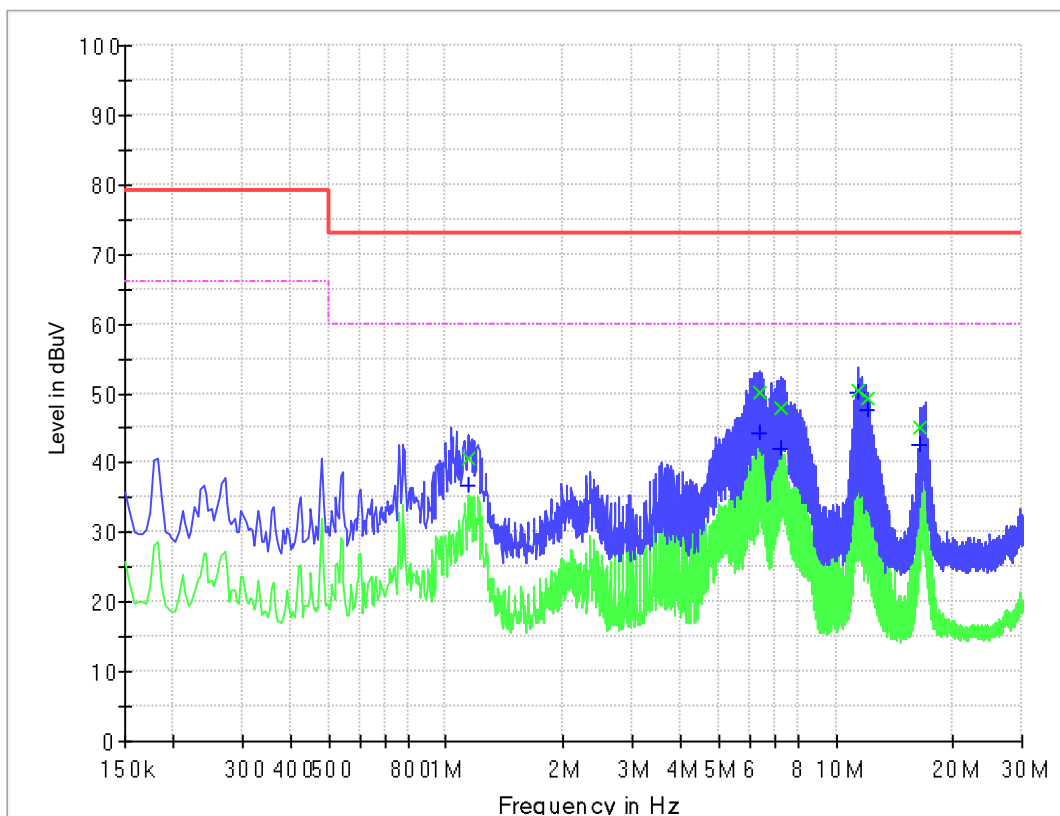


Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: B
Condition	: Temp:26.5°C, Humi:55%	LISN	: NNLK 8130
Comment	: AC power port, N		

Limit and Margin

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dB μ V)	Margin - AVG (dB)	Limit - AVG (dB μ V)
1.138000	40.71	36.75	20.0	9.000	N	28.7	32.29	73.0	23.25	60.0
6.358000	50.20	44.23	20.0	9.000	N	29.0	22.80	73.0	15.77	60.0
7.258000	47.87	42.07	20.0	9.000	N	29.1	25.13	73.0	17.93	60.0
11.438000	50.49	50.06	20.0	9.000	N	29.2	22.51	73.0	9.94	60.0
12.002000	49.22	47.65	20.0	9.000	N	29.3	23.78	73.0	12.35	60.0
16.482000	45.03	42.48	20.0	9.000	N	29.4	27.97	73.0	17.52	60.0



5.1.3 Conducted emissions - wired network port

RESULT:**Pass****Test Specification**

Test standard	: EN IEC 61000-6-4:2019
Test requirement	: EN IEC 61000-6-4:2019, Clause 9, Table 5
Frequency range	: 150kHz - 30MHz
Kind of test site	: 10m Semi-anechoic Chamber
Limit	: EN IEC 61000-6-4:2019, Table 5 Quasi-peak: 0.15 – 0.5 MHz, 97 to 87dBµV; 0.5 – 30 MHz, 87dBµV; Average: 0.15 – 0.5 MHz, 84 to 74dBµV; 0.5 – 30 MHz, 74dBµV

Test Setup

Date of testing	: Refer to test data
Test mode	: A, B
Test ports	: Wired network port
Ambient temperature	: Refer to test data
Relative humidity	: Refer to test data
Atmospheric pressure	: 100.4 kPa

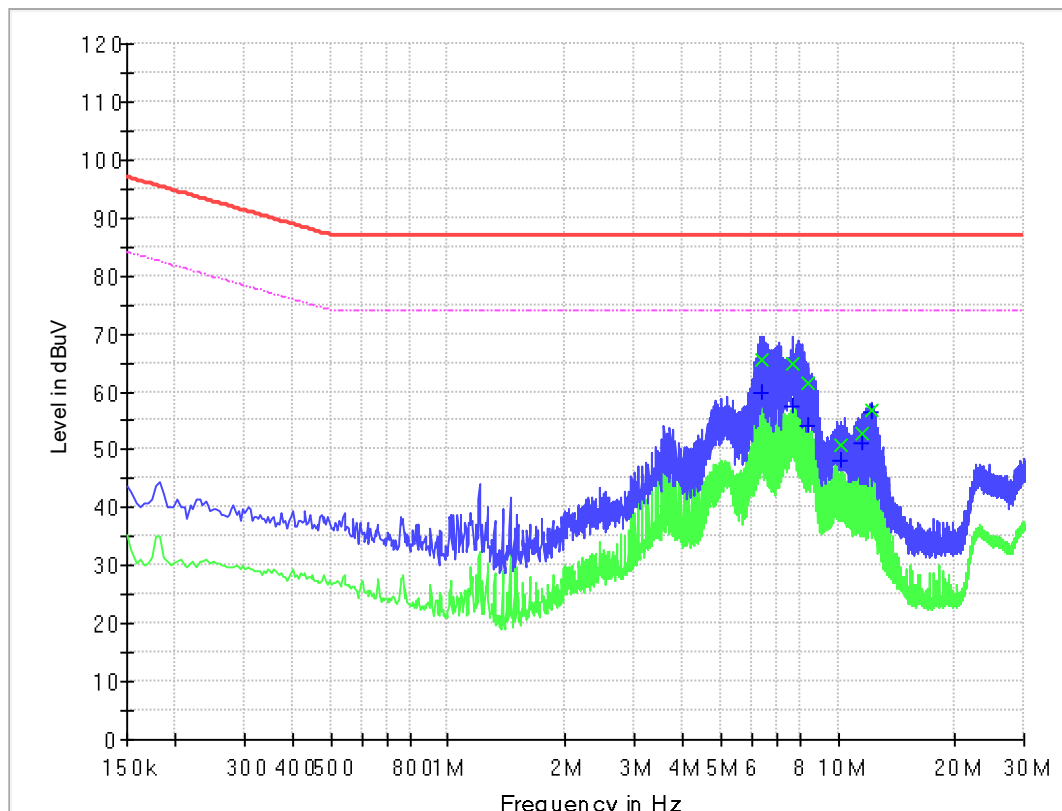
Test results:

Common Information

Test Date	: 2026.07.08	Tested By	: Yang Aojie
EUT	: Lithium Iron Phosphate Battery Energy Storage System	Model Number	: Optim US-A1-M7-A-250/522-EU-05
Power Supply	: 400Vac/50Hz	Test Mode	: A
Condition	: Temp:26.5°C, Humi:55%	LISN	: CAT5 8158

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - AVG (dB)	Limit - AVG (dBuV)
6.358000	65.56	59.87	20.0	9.000	20.4	21.44	87.0	14.13	74.0
7.678000	64.73	57.40	20.0	9.000	20.5	22.27	87.0	16.60	74.0
8.338000	61.59	54.29	20.0	9.000	20.5	25.41	87.0	19.71	74.0
10.178000	50.88	48.12	20.0	9.000	20.6	36.12	87.0	25.88	74.0
11.498000	52.72	51.28	20.0	9.000	20.6	34.28	87.0	22.72	74.0
12.250000	56.94	56.63	20.0	9.000	20.6	30.06	87.0	17.37	74.0

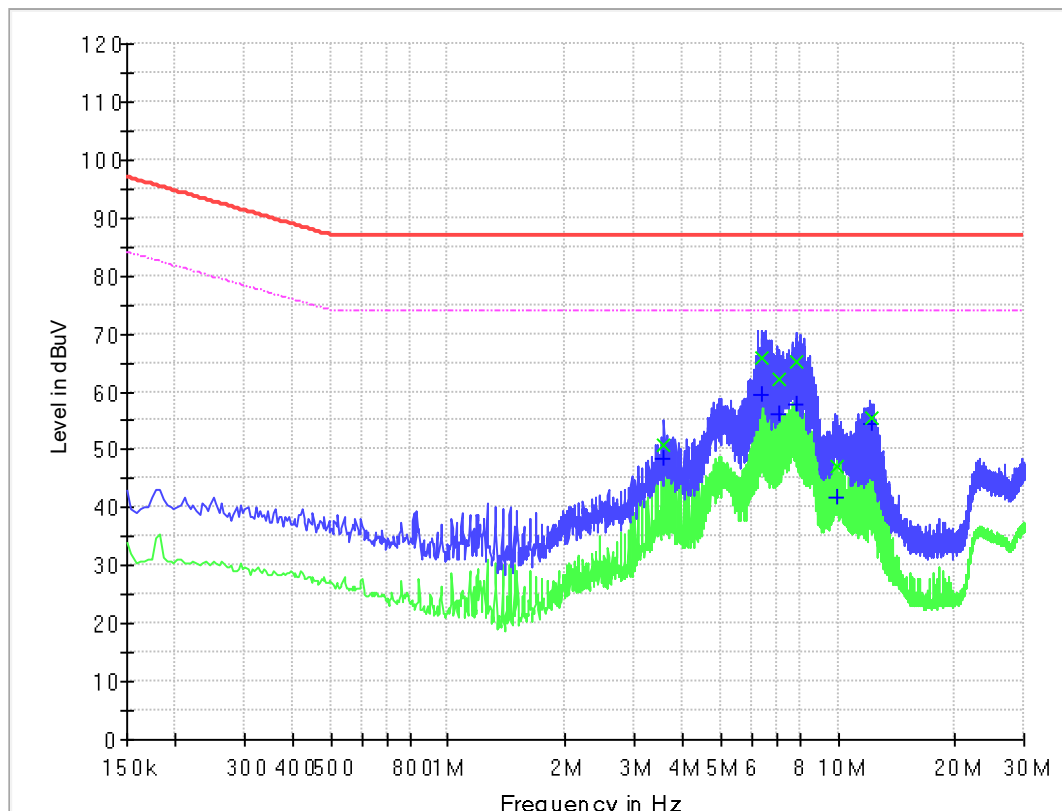


Common Information

Test Date : 2026.07.08 **Tested By** : Yang Aojie
EUT : Lithium Iron Phosphate Battery
 : Energy Storage System **Model Number** : Optim US-A1-M7-A-250/522-EU-05
Power Supply : 400Vac/50Hz **Test Mode** : B
Condition : Temp:26.5°C, Humi:55% **LISN** : CAT5 8158

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - AVG (dB)	Limit - AVG (dBuV)
3.582000	50.72	48.52	20.0	9.000	20.3	36.28	87.0	25.48	74.0
6.358000	66.00	59.36	20.0	9.000	20.4	21.00	87.0	14.64	74.0
7.078000	62.18	56.01	20.0	9.000	20.4	24.82	87.0	17.99	74.0
7.858000	65.07	57.85	20.0	9.000	20.5	21.93	87.0	16.15	74.0
9.886000	47.28	41.67	20.0	9.000	20.6	39.72	87.0	32.33	74.0
12.190000	55.63	54.52	20.0	9.000	20.6	31.37	87.0	19.48	74.0



5.2 Test Results of IMMUNITY

5.2.1 Radio-frequency electromagnetic field, Amplitude modulated

RESULT:
Pass
Test Specification

Test standard	: EN IEC 61000-6-2:2019 EN 61000-6-7:2015
Basic standard	: IEC 61000-4-3
Test requirement	: EN IEC 61000-6-2:2019, Clause 9, Table 1 EN 61000-6-7:2015, Clause 7, Table 2
Frequency range	: 80 - 6000 MHz
Test level	: Table 1 of EN IEC 61000-6-2:2019 80 - 1000 MHz, 10V/m 1.4 – 6GHz, 3V/m Table 2 of EN 61000-6-7:2015 80 – 1000 MHz, 20 V/m; 1.4 – 2.0 GHz, 10 V/m; 2.0 – 6.0 GHz, 3 V/m
Modulation	: 80% AM by a sinusoidal signal of 1kHz
Frequency scan speed	: Frequency step: 1%; Dwell time: 3s
Performance criterion	: A for EN IEC 61000-6-2:2019 DS for EN 61000-6-7:2015

Test Setup

Date of testing	: 2026-07-08
Test mode	: A, B
Test ports	: Enclosure
Ambient temperature	: 26.5°C
Relative humidity	: 55%
Atmospheric pressure	: 100.5kPa

Test results:

Ant. Polarization	Position	Actual Performance	Remarks
Vertical	Front side	A/DS	During and after the test, the EUT can operate as intended.
	Rear side	A/DS	
	Left side	A/DS	
	Right side	A/DS	
Horizontal	Front side	A/DS	During and after the test, the EUT can operate as intended.
	Rear side	A/DS	
	Left side	A/DS	
	Right side	A/DS	

5.2.2 Electrostatic discharge

RESULT:
Pass
Test Specification

Test standard	:	EN IEC 61000-6-2:2019 EN 61000-6-7:2015
Basic standard	:	IEC 61000-4-2
Test requirement	:	EN IEC 61000-6-2:2019, Clause 9, Table 1 EN 61000-6-7:2015, Clause 7, Table 2
Test level	:	Table 1 of EN IEC 61000-6-2:2019 ±4.0 kV contact discharge ±2.0 kV, ±4.0 kV, ±8.0 kV air discharge Table 2 of EN 61000-6-7:2015 ±8.0 kV contact discharge ±2.0 kV, ±4.0 kV, ±8.0 kV, ±15.0 kV air discharge
Number of discharges	:	≥ 30 at each point
Performance criterion	:	B for EN IEC 61000-6-2:2019 DS for EN 61000-6-7:2015

Test Setup

Date of testing	:	2026-07-10
Test mode	:	A, B
Test ports	:	Enclosure
Ambient temperature	:	30.4°C
Relative humidity	:	50%
Atmospheric pressure	:	101.5kPa

Test Results:

Test Point	Kind of Discharge	Actual Performance	Remarks
Screw	Contact Discharge	A/DS	During and after the test, the EUT can operate as intended.
Metallic enclosure	Contact Discharge	A/DS	
Doorknob	Contact Discharge	A/DS	
VCP (Vertical Coupling Plane)	Contact Discharge	A/DS	
Button	Air discharge	A/DS	
LED	Air discharge	A/DS	
Gap	Air discharge	A/DS	

5.2.3 Power-frequency magnetic field

RESULT:**Pass****Test Specification**

Test standard : EN IEC 61000-6-2:2019
EN 61000-6-7:2015

Basic standard : IEC 61000-4-8

Test requirement : EN IEC 61000-6-2:2019, Clause 9, Table 1
EN 61000-6-7:2015, Clause 7, Table 2

Test level : 30A/m, 50/60Hz

Performance criterion : A for EN IEC 61000-6-2:2019
DS for EN 61000-6-7:2015

Test Setup

Date of testing : 2026-07-10

Test mode : A, B

Test Ports : Enclosure

Ambient temperature : 30.4°C

Relative humidity : 50%

Atmospheric pressure : 101.5kPa

Test results:

Test Level	Testing Duration	Coil Orientation	Actual Performance	Remark
30A/m	5 mins	X	A/DS	During and after the test, the EUT can operate as intended.
30A/m	5 mins	Y	A/DS	
30A/m	5 mins	Z	A/DS	

5.2.4 Fast transients

RESULT:
Pass
Test Specification

Test standard	:	EN IEC 61000-6-2:2019 EN 61000-6-7:2015
Basic standard	:	IEC 61000-4-4
Test requirement	:	EN IEC 61000-6-2:2019, Clause 9, Tables 2, 4 EN 61000-6-7:2015, Clause 7, Table 3, 5
Test level	:	Table 2, 4 of EN IEC 61000-6-2:2019 ±2kV for AC power port; ±1kV for Signal port; Table 3, 5 of EN 61000-6-7:2015 ±4 kV for AC power port; ±2 kV for Signal port
Test duration	:	10 minutes per level & polarity
Repetition frequency	:	5kHz
Performance criterion	:	B for EN IEC 61000-6-2:2019 DS for EN 61000-6-7:2015

Test Setup

Date of testing	:	2026-07-11
Test mode	:	A, B
Test Ports	:	AC power port Signal port
Ambient temperature	:	33.5°C
Relative humidity	:	48%
Atmospheric pressure	:	101.6kPa

Test results:

Ports	Actual Performance	Performance Criterion
AC mains power port	A/DS	During and after the test, the EUT can operate as intended.
Signal port	A/DS	

5.2.5 Radio-frequency common mode

RESULT:
Pass
Test Specification

Test standard	: EN IEC 61000-6-2:2019 EN 61000-6-7:2015
Basic standard	: IEC 61000-4-6
Test requirement	: EN IEC 61000-6-2:2019, Clause 9 Tables 2, 4 EN 61000-6-7:2015, Clause 7, Table 3, 5
Frequency range	: 0.15MHz - 80MHz
Test level	: Table 2, 4 of EN IEC 61000-6-2:2019 10 V for AC power port/Signal port Table 3, 5 of EN 61000-6-7:2015 20 V for AC power port/Signal port
Modulation	: AM 80%, 1kHz
Frequency scan speed	: Frequency step: 1 %; Dwell time: 3 s
Performance criterion	: A for EN IEC 61000-6-2:2019 DS for EN 61000-6-7:2015

Test Setup

Date of testing	: 2026-07-10
Test mode	: A, B
Test ports	: AC power port Signal port
Ambient temperature	: 30.4°C
Relative humidity	: 50%
Atmospheric pressure	: 101.5kPa

Test results:

Ports	Actual Performance	Remarks
AC mains power port	A/DS	During and after the test, the EUT can operate as intended.
Signal port	A/DS	

5.2.6 Surges

RESULT:
Pass
Test Specification

Test standard	: EN IEC 61000-6-2:2019 EN 61000-6-7:2015
Basic standard	: IEC 61000-4-5
Test requirement	: EN IEC 61000-6-2:2019, Tables 2, 4 EN 61000-6-7:2015, Clause 7, Table 3, 5
Test level	: Table 2, 4 of EN IEC 61000-6-2:2019 ±0.5 kV, ±1 kV, ±2 kV (AC power port, line to ground); ±0.5 kV, ±1 kV (AC power port, line to line); ±0.5 kV, ±1 kV, (Signal port, line to ground) Table 3, 5 of EN 61000-6-7:2015 ±0.5 kV, ±1 kV, ±2 kV, ±4 kV (AC power port, line to ground); ±0.5 kV, ±1 kV, ±2 kV (AC power port, line to line); ±0.5 kV, ±1 kV, ±2 kV (Signal port, line to ground)
Number of surges	: 15 (for each combination of parameters)
Repetition rate	: Max. 1/min
Performance criterion	: B for EN IEC 61000-6-2:2019 DS for EN 61000-6-7:2015

Test Setup

Date of testing	: 2026-07-11
Test mode	: A, B
Test ports	: AC power port Signal port
Ambient temperature	: 33.5°C
Relative humidity	: 48%
Atmospheric pressure	: 101.6kPa

Test Results:

Ports	Coupling Mode	Actual Performance	Remarks
AC mains power port	Line to line	A/DS	During and after the test, the EUT can operate as intended.
	Line to earth	A/DS	
Signal port	Line to earth	A/DS	During and after the test, the EUT can operate as intended.

5.2.7 Voltage dips and interruptions

RESULT:
Pass
Test Specification

Test standard	:	EN IEC 61000-6-2:2019 EN 61000-6-7:2015	
Basic standard	:	IEC 61000-4-34	
Test requirement	:	EN IEC 61000-6-2:2019, Clause 9, Table 4 EN 61000-6-7:2015, Clause 7, Table 3	
Test level	:	0% residual voltage for 1 cycle at 50/60Hz 40% residual voltage for 10/12 cycles at 50/60Hz 70% residual voltage for 25/30 cycles at 50/60Hz 0% residual voltage for 250/300 cycles at 50/60Hz	B/DS C/DS C/DS C/DS
Performance criterion	:	B & C for EN IEC 61000-6-2:2019 (voltage dips) C for EN IEC 61000-6-2:2019 (voltage interruptions) DS for EN 61000-6-7:2015	

Test Setup

Date of testing	:	2026-07-10
Test mode	:	A, B
Test Ports	:	AC power port
Ambient temperature	:	30.4°C
Relative humidity	:	50%
Atmospheric pressure	:	101.5kPa

Test Results:

Ports	Dip to UT	Duration	Actual Performance	Remarks
AC mains power port	0%	1 cycle	B/DS	During the testing process, performance degrades, After the test, the EUT can operate as intended.
	40%	10 cycles	B/DS	
	70%	25 cycles	B/DS	During the testing process, performance degrades; after the test, the Equipment Under Test (EUT) operates as expected.
	0%	250 cycles	C/DS	During the test, the performance will be lost. After the test is completed, it needs to be manually restored to normal operation.

5.2.8 1.5 – 150 kHz Conducted common mode voltage

RESULT:
Pass
Test Specification

Test standard	:	EN 61000-6-7:2015
Basic standard	:	IEC 61000-4-16
Test requirement	:	EN 61000-6-7:2015, Clause 7, Table 3, 5
Frequency range	:	1.5kHz – 150kHz
Test level	:	Table 3, 5 of EN 61000-6-7:2015
		For AC power port: 1 V to 10 V increasing with 20 dB/decade (1.5 – 15 kHz) 10 V (15 – 150 kHz)
		For Signal port: 1 V to 10 V increasing with 20 dB/decade (1.5 – 15 kHz) 10 V (15 – 150 kHz) 10 V (continuous: DC, 16 2/3 Hz, 50 Hz, 60 Hz, 150 Hz, 180 Hz) 100 V (short duration 1 s: DC, 16 2/3 Hz, 50 Hz, 60 Hz)
Modulation	:	AM 80%, 1kHz
Frequency scan speed	:	Frequency step: 1 %; Dwell time: 3 s
Performance criterion	:	DS for EN 61000-6-7:2015

Test Setup

Date of testing	:	2026-07-11
Test mode	:	A, B
Test Ports	:	AC power port Signal port
Ambient temperature	:	33.5°C
Relative humidity	:	48%
Atmospheric pressure	:	101.6kPa

Test Results:

Ports	Actual Performance	Remarks
AC mains power port	DS	During and after the test, the EUT can operate as intended.
Signal port	DS	

6 Photographs of the Test Set-Up

Photograph 1: Set-up for measurement of conducted emissions

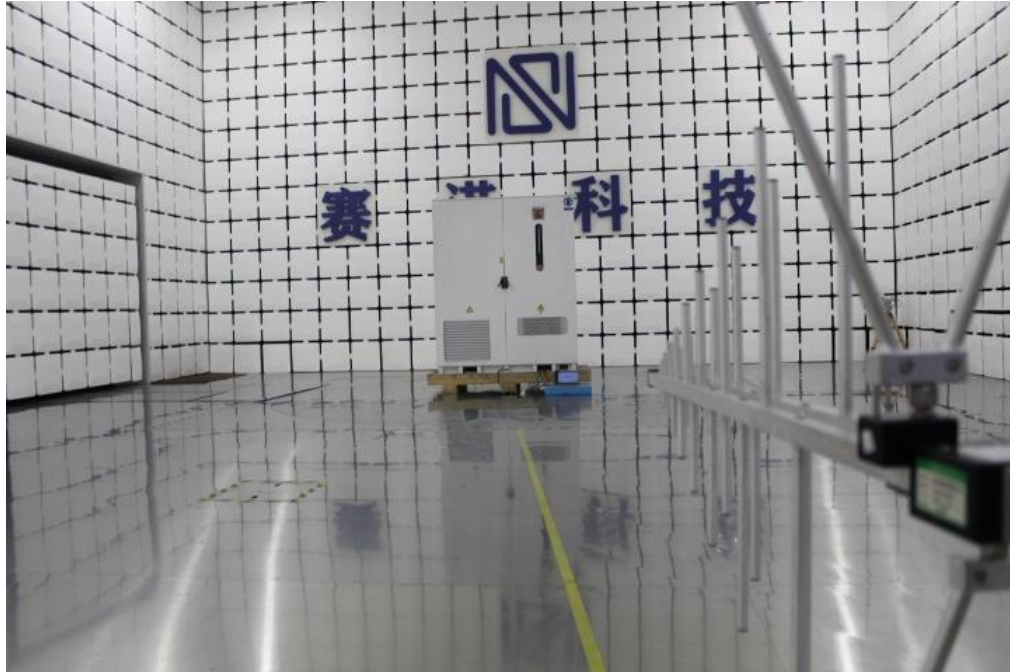


(AC mains power port)



(Wired network port)

Photograph 2: Set-up for measurement of radiated emissions



(30MHz ~ 1GHz)

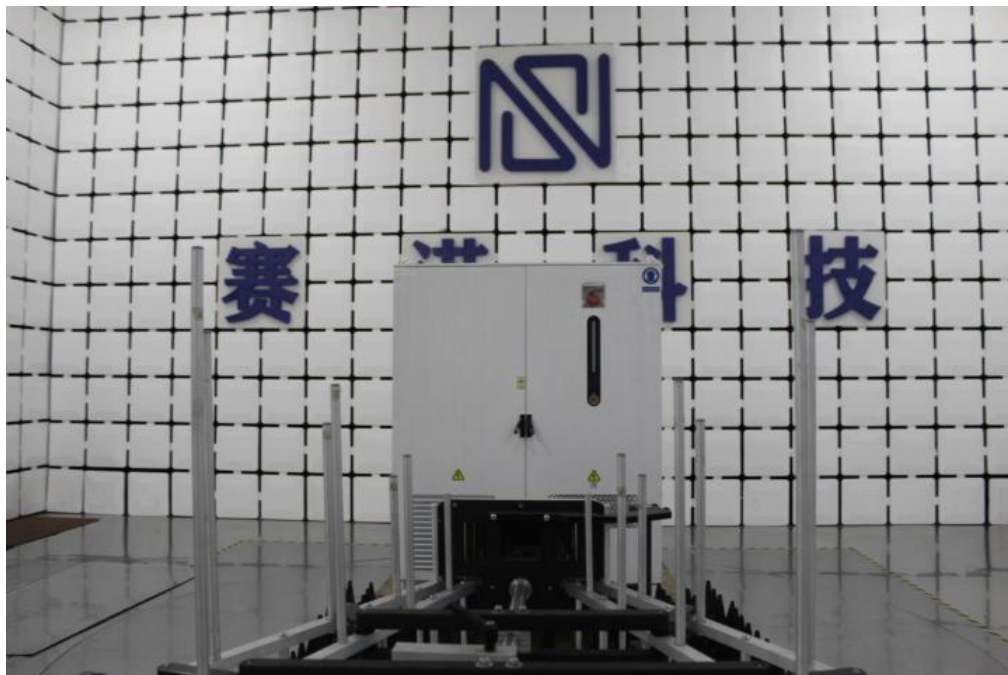


(1GHz ~ 6GHz)

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



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



Photograph 5: Set-up for immunity test of power-frequency magnetic field



Photograph 6: Set-up for immunity test of fast transients



(AC mains power port)



(Signal port)

Photograph 7: Set-up for immunity test of surges



(AC mains power port)



(Signal port)

Photograph 8: Set-up for immunity test of radio-frequency common mode



(AC mains power port)



(Signal port)

Photograph 9: Set-up for immunity test of voltage dips and interruption



Photograph 10: Set-up for immunity test of 1.5 – 150 kHz conducted common mode voltage



(AC mains power port)



(Signal port)

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End of Test Report