

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-12156-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 02.12.2024 **Valid to:** 13.06.2028
Date of issue: 02.12.2024

This annex is a part of the accreditation certificate D-PL-12156-01-00.

Holder of partial accreditation certificate:

JEL Limited
2971 Nakabyo, Abiko-Shi, CHIBA 270-1121, JAPAN

with the location

JEL Limited
2971 Nakabyo, Abiko-Shi, CHIBA 270-1121, JAPAN

JEL Limited
3032 Nakabyo, Abiko-Shi, CHIBA 270-1121, JAPAN

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

Electromagnetic compatibility (EMC)

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.

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**A: 2971 Nakabyo, Abiko-Shi, CHIBA 270-1121,
JAPAN**

**B: 3032 Nakabyo, Abiko-Shi, CHIBA 270-1121,
JAPAN**

Depart ment	Standard/in house procedure/Version	Title of standard or in house procedure (deviations/modifications of standard)	Test area/ reductions	Test Location
Generic Standards				
EMC	IEC 61000-6-1 :2005	Electromagnetic compatibility (EMC); Part 6-1: Generic standards. Immunity for residential, commercial and light-industrial environments		B
EMC	IEC 61000-6-1 :2016	Electromagnetic compatibility (EMC); Part 6-1: Generic standards. Immunity for residential, commercial and light-industrial environments		B
EMC	IEC 61000-6-2:2005	Electromagnetic compatibility (EMC); Part 6-2: Generic standards. Immunity for industrial environments		B
EMC	IEC 61000-6-2:2016	Electromagnetic compatibility (EMC); Part 6-2: Generic standards. Immunity for industrial environments		B
EMC	IEC 61000-6-3 :2006 /AMD1:2010	Electromagnetic compatibility (EMC); Part 6-3: Generic standards. Emission standard for residential, commercial and light-industrial environments		A
EMC	IEC 61000-6-3 :2020	Electromagnetic compatibility (EMC); Part 6-3: Generic standards. Emission standard for residential, commercial and light-industrial environments		A
Depart ment	Standard/in house procedure/Version	Title of standard or in house procedure (deviations/modifications of standard)	Test area/ reductions	Test Location

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EMC	IEC 61000-6-4 :2006 /AMD1:2010	Electromagnetic compatibility (EMC); Part 6-4: Generic standards. Emission standard for industrial environments		A
EMC	IEC 61000-6-4 :2018	Electromagnetic compatibility (EMC); Part 6-4: Generic standards. Emission standard for industrial environments		A
Basic Standards				
EMC	IEC 61000-4-2 :2008 BS EN 61000-4-2:2009	Electromagnetic compatibility (EMC); Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test		B
EMC	IEC 61000-4-3:2006 +AMD1:2007 +AMD2:2010	Electromagnetic compatibility (EMC); Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test		B
EMC	IEC 61000-4-3:2020	Electromagnetic compatibility (EMC); Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test		B
EMC	IEC 61000-4-4 :2004	Electromagnetic compatibility (EMC); Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test		B
EMC	IEC 61000-4-4 :2012	Electromagnetic compatibility (EMC); Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test		B
EMC	IEC 61000-4-5 :2005	Electromagnetic compatibility (EMC); Part 4-5: Testing and measurement techniques - Surge immunity test		B
EMC	IEC 61000-4-5 :2014 +AMD1:2017	Electromagnetic compatibility (EMC); Part 4-5: Testing and measurement techniques - Surge immunity test		B

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EMC	IEC 61000-4-6 :2008	Electromagnetic compatibility (EMC); Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields		B
EMC	IEC 61000-4-6 :2013	Electromagnetic compatibility (EMC); Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields		B
EMC	IEC 61000-4-8 :2009	Electromagnetic compatibility (EMC); Part 4-8: Testing and measurement techniques. Power frequency magnetic field immunity test	Except Table 2 – Test level for short duration: 1 s to 3 s	B
EMC	IEC 61000-4-8:2001	Electromagnetic compatibility (EMC); Part 4-8: Testing and measurement techniques. Power frequency magnetic field immunity test	Except Table 2 – Test level for short duration: 1 s to 3 s	B
EMC	IEC 61000-4-11:2004 /A1:2017	Electromagnetic compatibility (EMC); Part 4-11: Testing and measurement techniques. Voltage dips, short interruptions and voltage variations immunity tests		B
EMC	IEC 61000-4-11:2020	Electromagnetic compatibility (EMC); Part 4-11: Testing and measurement techniques. Voltage dips, short interruptions and voltage variations immunity tests		B
EMC	IEC 61000-4-39:2017	Electromagnetic compatibility (EMC); Part 4-39: Testing and measurement techniques. Radiated fields in close proximity immunity test		B
EMC	IEC 61000-3-2 :2014	Electromagnetic compatibility (EMC); Part 3-2: Limits. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)		A, B

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EMC	IEC 61000-3-3 :2013 /AMD1:2017	Electromagnetic compatibility (EMC); Part 3-3: Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection		A, B
EMC	IEC 61000-3-11:2017	Electromagnetic compatibility (EMC); Part 3-11: Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems. Equipment with rated voltage current ≤ 75 A and subject to conditional connection	up to 40 A per phase	A, B
EMC	IEC 61000-3-11:2000	Electromagnetic compatibility (EMC); Part 3-11: Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems. Equipment with rated voltage current ≤ 75 A and subject to conditional connection	up to 40 A per phase	A, B
EMC	IEC 61000-3-12:2011	Electromagnetic compatibility (EMC); Part 3-12: Limits. Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase		A, B

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Product Family Standards and Product Standards				
EMC	CISPR 11 :2015 /AMD1:2016	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement		A
EMC	CISPR 14-1:2016	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Emission / (EQV)		A
EMC	CISPR 14-2:2015	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Immunity. Product family standard / (EQV)		B
EMC	CISPR 22: 2008	Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement		A
EMC	CISPR 24:2010/A1 :2015	Information technology equipment. Immunity characteristics. Limits and methods of measurement		B
EMC	IEC 60601-1-2:2007	Medical electrical equipment; Part 1-2: General requirements for basic safety and essential performance. Collateral Standard. Electromagnetic disturbances. Requirements and tests		A, B
EMC	IEC 60601-1-2:2014 /A1:2020	Medical electrical equipment; Part 1-2: General requirements for basic safety and essential performance. Collateral Standard. Electromagnetic disturbances. Requirements and tests		A, B
EMC	IEC 61326-1:2012 IEC 61326-1:2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements		A, B

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EMC	IEC 61326-2-1:2012 IEC 61326-2-1:2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications		A, B
EMC	IEC 61326-2-2:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements - Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems		A, B
EMC	IEC 61326-2-3:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning		A, B
EMC	CISPR 32:2012 CISPR 32:2015	Electromagnetic compatibility of multimedia equipment. Emission requirements	Limitation: frequency up to 6 GHz, Without annex H testing of home satellite receiving systems	A
EMC	BS EN 55032:2015 /A11:2020	Electromagnetic compatibility of multimedia equipment. Emission requirements	Limitation: frequency up to 6 GHz, Without annex H testing of home satellite receiving systems	A

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EMC	BS EN 55032:2015 /A11:2020	Electromagnetic compatibility of multimedia equipment. Emission requirements	Limitation: frequency up to 6 GHz, Without annex H testing of home satellite receiving systems	A
EMC	CISPR 35:2016	Electromagnetic compatibility of multimedia equipment. Immunity requirements		B
EMC	BS EN 55035:2017 /A11:2020	Electromagnetic compatibility of multimedia equipment. Immunity requirements	Only accepted if standard is actually available in the laboratory	B

Abbreviations used:

AMD	Amendment
CISPR	International Special Committee on Radio Interference
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EMC	Electromagnetic compatibility
EN	Europäische Norm – European Standard
ETSI	European Telecommunications Standards Institute
IEC	International Electrotechnical Commission
ISO	International Organization for Standardisation