DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

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

is competent under the terms of ISO/IEC 17025:2005 to carry out tests in the following fields:

Electromagnetic Compatibility (EMC)

The accreditation certificate is valid until 17.07.2023. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 05 pages.

Registration number of the certificate: **D-PL-12156-01-00**

Berlin, 18.07.2018

Dipl.-Ing. (FH) Ralf Egner
Head of Division

See notes overleaf.

DAkkS Deutsche Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12156-01-00 according to ISO/IEC 17025:2005

Period of validity: 18.07.2018 to 17.07.2023 Date of issue: 18.07.2018

Holder of certificate:

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

Tests in the fields:

Electromagnetic Compatibility (EMC)

Depart-ment	Standard / in house procedure / Version	Title of standard or in house procedure (deviations / modifications of standard)	Test area / reductions
Generic Standards			
EMC	IEC 61000-6-1 :2005 EN 61000-6-1 :2007 IEC 61000-6-1 :2016	Electromagnetic compatibility (EMC); Part 6-1: Generic standards. Immunity for residential, commercial and light-industrial environments	
EMC	IEC 61000-6-2:2005 EN 61000-6-2:2005 IEC 61000-6-2:2016	Electromagnetic compatibility (EMC); Part 6-2: Generic standards. Immunity for industrial environments	
EMC	IEC 61000-6-3 :2006 /AMD1:2010 EN 61000-6-3:2007 /A1:2011	Electromagnetic compatibility (EMC); Part 6-3: Generic standards. Emission standard for residential, commercial and light-industrial environments	
EMC	IEC 61000-6-4 :2006 /AMD1:2010 EN 61000-6-4:2007 /A1:2011	Electromagnetic compatibility (EMC); Part 6-4: Generic standards. Emission standard for industrial environments	

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Basic Standards			
EMC	IEC 61000-4-2 :2008 EN 61000-4-2:2009	Electromagnetic compatibility (EMC); Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	
EMC	IEC 61000-4-3 +AMD1:2007+AMD2 :2010 EN 61000-4-3 +AMD1:2008+AMD2 :2010	Electromagnetic compatibility (EMC); Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	
EMC	IEC 61000-4-4 :2004 EN 61000-4-4 :2004 IEC 61000-4-4 :2012 EN 61000-4-4 :2012	Electromagnetic compatibility (EMC); Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	
EMC	IEC 61000-4-5 :2005 EN 61000-4-5 :2006 IEC 61000-4-5 :2014 EN 61000-4-5 :2014	Electromagnetic compatibility (EMC); Part 4-5: Testing and measurement techniques - Surge immunity test	
EMC	IEC 61000-4-6 :2006 EN 61000-4-6:2007 IEC 61000-4-6 :2013 EN 61000-4-6:2014	Electromagnetic compatibility (EMC); Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	
EMC	IEC 61000-4-8 :2009 EN 61000-4-8:2010 IEC 61000-4-8:2001 EN 61000-4-8:1993 +AMD1:2001	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
EMC	IEC 61000-4-11:2004 /A1:2017 EN 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	
EMC	IEC 61000-3-2 :2014 EN 61000-3-2:2014	Electromagnetic compatibility (EMC); Part 3-2: Limits. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	

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EMC	IEC 61000-3-3 :2013 /AMD1:2017 EN 61000-3-3:2013	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	
EMC	IEC 61000-3-11:2017 IEC 61000-3-11:2000 EN 61000-3-11:2000 (up to 40 A per phase)	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	
EMC	IEC 61000-3-12 :2011 EN 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	
Product Family Standards and Product Standards			
EMC	CISPR 11 :2015 /AMD1:2016 EN 55011:2016 /A1:2017	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	
EMC	CISPR 14-1:2016 EN 55014-1:2017	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Emission / (EQV)	
EMC	CISPR 14-2:2015 EN 55014-2:2015	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Immunity. Product family standard / (EQV)	
EMC	CISPR 22: 2008 EN 55022: 2010	Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement	
EMC	CISPR 24:2010/A1 :2015 EN 55024:2010/A1 :2015	Information technology equipment. Immunity characteristics. Limits and methods of measurement	
EMC	EN 50130-4:2011	Alarm systems. Electromagnetic compatibility. Product family standard. Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems	

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EMC	IEC 60601-1-2:2007 EN 60601-1-2:2007 IEC 60601-1-2:2014 EN 60601-1-2:2015	Medical electrical equipment; Part 1-2: General requirements for basic safety and essential performance. Collateral Standard. Electromagnetic disturbances. Requirements and tests	
EMC	IEC 61326-1:2012 EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	
EMC	IEC 61326-2-1:2012 EN 61326-2-1:2013	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	
EMC	IEC 61326-2-2:2012 EN 61326-2-2:2013	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	
EMC	IEC 61326-2-3:2012 EN 61326-2-3:2013	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	
EMC	CISPR 32:2012 EN 55032:2012 CISPR 32:2015 EN 55032:2015	Electromagnetic compatibility of multimedia equipment. Emission Requirements	
EMC	CISPR 35:2016 EN 55035:2017	Electromagnetic compatibility of multimedia equipment. Immunity requirements	
EMC	ETSI_EN_301 489-1_V1.9.2 (2011) ETIS EN 301 489-1 V2.1.1 (2017-02)	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	

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EMC	ETSI EN 301 489-3 V1.6.1 (2013)	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz	
EMC	ETSI EN 301 489-6 V2.1.0 (2016-04)	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 6: Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment	
EMC	ETSI_EN_301 489-17_V2.2.1 (2012)	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	