



Certificate No. : L1113-121105

財團法人全國認證基金會  
Taiwan Accreditation Foundation

## Certificate of Accreditation

This is to certify that

**Interocean EMC Technology Corp.**

**Interocean EMC Technology Tin -Fu Laboratory**

No. 5-2, Lin 1, Tin-Fu, Lin-Kou Dist., New Taipei City, Taiwan 244, R.O.C.

**is accredited in respect of laboratory**

**Accreditation Criteria** : ISO/IEC 17025:2005  
**Accreditation Number** : 1113  
**Originally Accredited** : August 01, 2003  
**Effective Period** : November 05, 2012 to November 04, 2015  
**Accredited Scope** : Testing Field, see described in the Appendix  
**Specific Accreditation Program** : Accreditation Program for Designated Testing Laboratory for Commodities Inspection  
Accreditation Program for Telecommunication Equipment Testing Laboratory  
Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities

Jay-San Chen  
President, Taiwan Accreditation Foundation  
Date: November 05, 2012



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Accreditation Number : 1113

Laboratory Head : HUANG, Mike

15.03 Medical Devices

Medical electrical equipment

E002 EMC

IEC 60601-1-2

EN 60601-1-2

(except click rate test)

Conducted Interference:9 kHz to 30 MHz

Interference Power test:30 MHz to 300 MHz

Radiated Interference:9 kHz to 30 MHz (2 m Loop Antenna)

Radiated Interference:30 MHz to 40 GHz

Medical electrical equipment - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

16.11 Machine and Equipment

Construction Machinery

E002 EMC

EN 13309 (Sec. 4.5 to 4.9)

Radiated Interference:30 MHz to 1 GHz

Construction Machinery - EMS TEST

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

16.12 Machine and Equipment

Agricultural and Forestry Machinery

E002 EMC

ISO 14982 (Sec 6.4 to 6.8)

EN/ISO 14982 (Sec 6.4 to 6.8)

Radiated Interference:30 MHz to 1 GHz

Agricultural and Forestry Machinery - EMS TEST

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

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17.99 Metrical Instrument

Electrical equipment for measurement, control and laboratory use

E002 EMC

IEC 61326-1; EN 61326-1

IEC 61326-2-1; EN 61326-2-1

IEC 61326-2-2; EN 61326-2-2

IEC 61326-2-3; EN 61326-2-3

IEC 61326-2-4; EN 61326-2-4

IEC 61326-2-5; EN 61326-2-5

IEC 61326-2-6; EN 61326-2-6

Conducted Interference:9 kHz to 30 MHz

Radiated Interference:30 MHz to 40 GHz

Electrical equipment for measurement, control and laboratory use - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

18.01 Commodity

Electrical Lighting and similar equipment

(Excluded Fluorecent Lighting)

E002 EMC

CISPR 15

IEC 61547

EN 55015

EN 61547

CNS 14115

CNS 15233 (Sec. 5.11, 6.11)

ICES 05

AS/NZS CISPR 15

J55015

Conducted Interference:9 kHz to 30 MHz

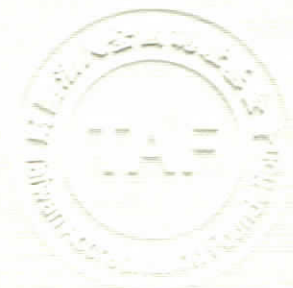
Radiated Interference:9 kHz to 30 MHz (2 m Loop Antenna) .

Radiated Interference:30 MHz to 300 MHz

Interference power: 30 MHz to 300MHz

Electrical Lighting and similar equipment - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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■ 18.02 Commodity  
Household appliances  
E002 EMC  
CNS 13783-1 (except click rate test)  
CISPR 14-1 (except click rate test)  
CISPR 14-2  
EN 55014-1(except click rate test)  
EN 55014-2  
AS/NZS CISPR 14-1(except click rate test)  
J55014-1(except click rate test)  
Conducted Interference:9 kHz to 30 MHz  
Interference Power test:30 MHz to 300 MHz  
Radiated Interference:30 MHz to 1 GHz  
Household appliances - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

■ 18.03 Commodity  
Switches  
E002 EMC  
IEC 61058-1 (Sec. 25)  
EN 61058-1 (Sec. 25)  
(except click rate test)  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:9 kHz to 30 MHz (2 m Loop Antenna)  
Interference Power test:30 MHz to 300 MHz  
Radiated Interference:30 MHz to 1 GHz  
Switches - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

■ 18.04 Commodity  
Sound and TV broadcast receivers and associated equipment  
E002 EMC  
CNS 13439  
CISPR 13  
EN 55013  
AS/NZS CISPR 13  
J55013  
Conducted Interference:9 kHz to 30 MHz  
Disturbance Voltage at the Antenna Terminals :30 MHz to 2150 MHz  
Interference Power test:30 MHz to 300 MHz  
Radiated Interference:30 MHz to 1 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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19.02 Electronic and Electric  
Programmable Controllers  
E002 EMC  
IEC 61131-2 (Sec. 8)  
EN 61131-2 (Sec. 8)  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz  
Programmable Controllers - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.02 Electronic and Electric  
Electrical Relays  
E002 EMC  
IEC 60255-5 (Sec. 6)  
EN 60255-5 (Sec. 6)  
Impulse Voltage Test:0 to  $\pm 6.0$  kV  
Dielectric Test:0 to 5.0 kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.04 Electronic and Electric  
Power station and substation environments equipment  
E002 EMC  
IEC 61000-6-5  
EN 61000-6-5  
Power station and substation environments equipment - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.04 Electronic and Electric  
Communication networks and systems in substations  
E002 EMC  
IEEE 1613 (Sec. 6.2 to 6.3)  
Dielectric test voltage:(0 to 5) kVac, (0 to 6) kVdc  
Impulse voltage:(0 to  $\pm 6.6$ ) kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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■ 19.06 Electronic and Electric  
Uninterruptible power  
systems (UPS)  
E002 EMC  
IEC 62040-2  
EN 62040-2  
CNS 14757-2  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 1 GHz  
Uninterruptible power  
systems (UPS) - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

■ 19.07 Electronic and Electric  
Alarm systems  
E002 EMC  
EN 50130-4  
Alarm systems - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

■ 19.10 Electronic and Electric  
Road traffic signal systems  
E002 EMC  
EN 50293  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz  
Road traffic signal systems - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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19.11 Electronic and Electric  
electric tools and Similar apparatus  
E002 EMC  
CNS 13783-1 (except click rate test)  
CISPR 14-1 (except click rate test)  
CISPR 14-2  
EN 55014-1 (except click rate test)  
EN 55014-2  
AS/NZS CISPR 14-1 (except click rate test)  
J55014-1 (except click rate test)  
Conducted Interference:9 kHz to 30 MHz  
Interference Power test:30 MHz to 300 MHz  
Radiated Interference:30 MHz to 1 GHz  
electric tools and Similar apparatus - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.99 Electronic and Electric  
Industrial, scientific and medical (ISM) radio-frequency equipment  
E002 EMC  
CISPR 11  
EN 55011  
CNS 13803  
ICES 01  
J55011  
AS/NZS CISPR 11  
47 CFR FCC Part 18  
FCC MP-5  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz

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19.99 Electronic and Electric  
Industrial environments equipment  
E002 EMC  
IEC 61000-6-2  
EN 61000-6-2  
CNS 14674-2  
IEC 61000-6-4  
EN 61000-6-4  
Conducted Interference:9 kHz to 30 MHz (Including ISN RJ 11 and RJ 45 testing)  
Radiated Interference:30 MHz to 40 GHz  
Industrial environments equipment - EMS TEST  
Site VSWR:1 GHz to 6 GHz/3 m Tin-Fu Laboratory OATS 1,2,3,5 & Chamber 3

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.99 Electronic and Electric  
Residential, commercial  
and light-industrial environments equipment  
E002 EMC  
IEC 61000-6-1  
EN 61000-6-1  
CNS 14674-1  
IEC 61000-6-3  
EN 61000-6-3  
CNS 14674-3  
Conducted Interference:9 kHz to 30 MHz (Including ISN RJ 11 and RJ 45 testing)  
Radiated Interference:30 MHz to 40 GHz  
Residential, commercial and light-industrial environments equipment - EMS TEST  
Site VSWR:1 GHz to 6 GHz/3 m Tin-Fu Laboratory OATS 1,2,3,5 & Chamber 3

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.99 Electronic and Electric  
Low Voltage power supplies, d.c. output  
E002 EMC  
IEC 61204-3  
EN 61204-3  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 3 GHz  
Low Voltage power supplies - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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19.99 Electronic and Electric  
Electrical and Electronic Equipment  
E002 EMC  
IEC 61000-3-2  
EN 61000-3-2  
CNS 14934-2  
Input Current  $\leq 16$  A  
Frequency:50 Hz/60 Hz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-3-3  
EN 61000-3-3  
CNS 14934-3  
Input Current  $\leq 16$  A  
Frequency:50 Hz to 60 Hz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-10  
EN 61000-4-10  
Damped Oscillatory Magnetic:(1 to 100) A/m

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-11  
EN 61000-4-11  
Power dip/interruption:0 to 100 %  
Power dip/interruption period:0 to 300 cycles

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-12  
EN 61000-4-12  
Interference Voltage:(0 to  $\pm 6.6$ ) kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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E002 EMC  
IEC 61000-4-16  
EN 61000-4-16  
Test levels at mains frequency:30 Vrms(Continue), 300 Vrms(1 sec)  
Low Frequency Interference:15 Hz to 150 KHz, (3 to 30) Vrms

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-17  
EN 61000-4-17  
DC Voltage Ripple:2% to 15 %

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-18  
EN 61000-4-18  
Interference Voltage:(0 to  $\pm 3$ ) kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-2  
EN 61000-4-2  
CNS 14676-2  
EN 15194 (Sec. 4.2.5)  
Air Discharge:(0 to  $\pm 30$ ) kV  
Contact Discharge:(0 to  $\pm 30$ ) kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-29  
EN 61000-4-29  
Control Level:(0 to 120) % Working Voltage  
Duration:1 ms to 10 s

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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E002 EMC  
IEC 61000-4-3  
EN 61000-4-3  
CNS 14676-3  
ENV 50204

Frequency Scope: 80 MHz to 3 GHz, 1 KHz AM 80 % modulation,  
Frequency Scope:895 to 905 MHz, PM 50 % modulation, Field Strength:20 V/m

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-4  
EN 61000-4-4  
CNS 14676-4

Interference Voltage:0 V to  $\pm 4.4$  kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-5  
EN 61000-4-5  
CNS 14676-5

CNS 15015 (Sec. 9.8, 10.7)

CNS 15233 (Sec. 5.9, 6.9)

Interference Voltage:0 V to  $\pm 6.0$  kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-6  
EN 61000-4-6  
CNS 14676-6

Frequency Scop:150 kHz to 230 MHz

Voltage Level:(0 to 15) Vrms

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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E002 EMC  
IEC 61000-4-8  
EN 61000-4-8  
CNS 14676-8  
Continue Magnetic:(1 to 300) A/m  
Short Duration: 1000 A/m

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEC 61000-4-9  
EN 61000-4-9  
Pulse Magnetic:(1 to 300) A/m

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEEE C37.90.1  
IEEE C37.90.2  
Surge:Interference Voltage:0 V to  $\pm 6.0$  kV  
RS:20 V/m,AM 80 %,80 MHz to 3 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

E002 EMC  
IEEE C62.41.1  
IEEE C62.41.2  
Ring Wave:0 to  $\pm 6.6$  kV  
Surge Wave:0 to  $\pm 6.0$  kV  
EFT Wave:0 to  $\pm 4.4$  kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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E002 EMC

MIL-STD 461E & F (CE101, CE102, CS101, CS114, RE101, RE102, RS101, RS103)

CE101:30 Hz to 10 kHz

CS101:30 Hz to 150 kHz, CURVE #1 136 dBuV

CS114:10 kHz to 200 MHz, CURVE #4 97 dBuA

CE102:10 kHz to 10 MHz

RE101:30 Hz to 100 kHz

RE102:10 kHz to 200 MHz, 1 GHz to 18 GHz

RS101:30 Hz to 100 kHz, Limit Level 180dBpT

RS103:80 Hz to 3 GHz, Limit Level 50V/m

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

E002 EMC

RTCA DO-160E & F (Sec. 21)

Conducted Interference:150 kHz to 152 MHz

Radiated Interference:2 MHz to 6 GHz

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

20.01 Information Technology and Communication

Telecontrol Equipment and Systems

E002 EMC

IEC 60870-2-1 (Sec. 5)

EN 60870-2-1 (Sec. 5)

Conducted Interference:9 kHz to 30 MHz

Radiated Interference:30 MHz to 40 GHz

Telecontrol Equipment and Systems - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

20.01 Information Technology and Communication

Power line communication(PLC) apparatus

E002 EMC

EN 50412-2-1

Power line communication(PLC) apparatus - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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20.01 Information Technology and Communication  
Network Telecommunications Equipment  
E002 EMC  
NEBS GR-1089-CORE (Sec. 2)  
ESD: Air Discharge:(0 to  $\pm 30$ ) kV; Contact Discharge:(0 to  $\pm 30$ ) kV  
EFT: Interference Voltage:0 V to  $\pm 4.4$  kV

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

20.13 Information Technology and Communication  
Low Power Wireless Electrical and Electronic Equipment  
E004 Telecommunications  
NCC Ministry of Transportation and Communication Low Power RF Equipment Technology specification LP0002  
47 CFR FCC Part 15 Subpart C, E  
47 CFR FCC Part 22 Subpart H  
47 CFR FCC Part 24 Subpart E  
EN 300 220-1 (Sec. 7, 8.6)  
EN 300 220-2 (Sec. 4.2.1.1 to 4.2.1.10, 4.3.7, 5.1.3, 5.1.4.6)  
EN 300 330-1 (Sec. 7, 8.3)  
EN 300 330-2 (Sec. 4.2.1, 4.2.2.3, 5.2.1, 5.2.2.3)  
EN 300 440-1 (Sec. 7, 8.3)  
EN 300 440-2 (Sec. 4.2.1, 4.2.2.3, 5.1 to 5.3, 5.4.3, 5.5)  
EN 300 328  
EN 301 893 (exclude Sec. 4.7)  
EN 301 489-1  
EN 301 489-3  
EN 301 489-7  
EN 301 489-9  
EN 301 489-17  
EN 301 489-24  
EN 301 908-1 (exclude Sec. 4.2.3)  
EN 301 511 (Sec. 4.2.12 to 4.2.19, 5.2.12 to 5.2.19)  
EN 301 357-1 (Sec. 8.1, 8.2)  
EN 301 357-2 (Sec. 4.2.1, 5.3.1)  
AS/NZS 4268  
Canada RSS-GEN  
Canada RSS-132  
Canada RSS-133  
Canada RSS-210  
Canada RSS-310  
Frequency range:9 kHz to 40 GHz

Approval Signatory: LIU, Jerry; CHANG, Wilson



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E004 Telecommunications  
Low Power RF Equipment Technology specification  
NCC LP 0002  
47 CFR FCC Part 15 Subpart C, E  
47 CFR FCC Part 22 Subpart H  
47 CFR FCC Part 24 Subpart E  
AS/NZS 4268  
Canada RSS-GEN  
Canada RSS-132  
Canada RSS-133  
Canada RSS-210  
Canada RSS-310  
Frequency range:9 kHz to 40 GHz

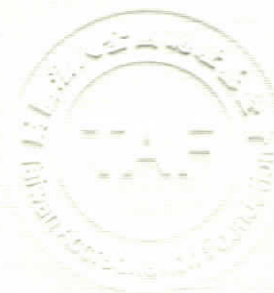
Approval Signatory: LIU, Jerry;CHANG, Wilson

20.21 Information Technology and Communication

Information Technology Equipment

E002 EMC  
CISPR 22; CISPR 24  
EN 55022; EN 55024  
CNS 13438  
CNS 15015 (Sec. 9.11, 10.10)  
47 CFR FCC Part 15 Subpart B  
ANSI C63.4  
ICES 03  
AS/NZS CISPR 22  
VCCI-3  
J55022  
Conducted Interference:9 kHz to 30 MHz (Including ISN RJ11 and RJ45 testing)  
Radiated Interference:30 MHz to 40 GHz  
Information Technology Equipment - EMS TEST  
Site VSWR:1 GHz to 6 GHz/3 m Tin-Fu Laboratory OATS 1,3,5 & Chamber 3

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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20.99 Information Technology and Communication  
Communication networks and systems in substations  
E002 EMC  
IEC 61850-3 (Sec. 5.7, 5.8, 6)  
EN 61850-3 (Sec. 5.7, 5.8, 6)  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 6 GHz  
Communication networks and systems in substations - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

22.01 Transportation Equipment  
ESA  
E002 EMC  
ISO 10605  
ISO 13766 (Sec. 5.9)  
SAE J1113-13  
SAE J1113-1  
CNS 14499  
Air Discharge:(0 to  $\pm 30$ ) kV  
Contact Discharge:(0 to  $\pm 30$ ) kV

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC  
ISO 11452-8  
SAE J1455 (Sec. 4.13.3)  
frequency range:15 Hz to 30 kHz  
field strength:80  $\mu$ T

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC  
ISO 16750-2  
ISO 16750-1  
JASO D001-1994 (Sec. 5.1 to 5.6)  
Voltage: 12 Vdc/24 Vdc

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

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■ 22.01 Transportation Equipment  
Magnetic and Electric Field Strength from Electric Vehicles  
E002 EMC  
SAE J551-5  
Conducted Interference:450 kHz to 30 MHz  
Electric Field Interference:9 kHz to 30 MHz  
Magnetic Field Interference:9 kHz to 30 MHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

■ 22.04 Transportation Equipment  
ESA  
E002 EMC  
CISPR 25  
EN55025  
CNS 14500  
2004/104/EC (ANNEX 7,8)  
2006/28/EC (ANNEX 7,8)  
ECE R10 (ANNEX 7,8)  
SAE J1113-41  
SAE J1113-1  
SAE J1455 (Sec. 4.13.3)  
ISO 13766 (Sec. 5.6, 5.7)  
EN 15194 (Sec. 4.2.5)  
EN 50498 (Sec. 7.1 to 7.2)  
Conducted Interference: 150 kHz to 108 MHz  
Radiated Interference:150 kHz to 2.5 GHz

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC  
ISO 11452-2  
ISO 11452-1  
ISO 13766 (Sec. 5.8)  
SAE J1113-21  
SAE J1113-1  
SAE J1455 (Sec. 4.13.3)  
CNS 15207-2  
CNS 15207-1



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ECE R10 (ANNEX 9)  
2004/104/EC (ANNEX 9)  
2006/28/EC (ANNEX 9)  
JASO D001-1994 (Sec. 5.10)  
EN 15194 (Sec. 4.2.5.2)  
20 MHz to 80MHz:30 V/m  
80 MHz to 3GHz:100 V/m

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

E002 EMC  
ISO 11452-3  
ISO 11452-1  
ISO 13766 (Sec. 5.8)  
SAE J1113-24  
SAE J1113-1  
JASO D001-1994 (Sec. 5.10)  
CNS 15207-3  
CNS 15207-1  
2004/104/EC(ANNEX 9)  
2006/28/EC (ANNEX 9)  
ECE R10 (ANNEX 9)  
EN 15194 (Sec. 4.2.5.2)  
frequency range:100kHz to 400 MHz  
field strength:100 V/m

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

E002 EMC  
ISO 11452-4  
ISO 11452-1  
ISO 13766 (Sec. 5.8)  
SAE J1113-4  
SAE J1113-1  
CNS 15207-4  
CNS 15207-1  
2004/104/EC (ANNEX 9)  
2006/28/EC (ANNEX 9)  
ECE R10 (ANNEX 9)  
EN 15194 (Sec. 4.2.5.2)  
frequency range:100 kHz to 1 GHz  
Current:200 mA

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

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E002 EMC  
ISO 7637-2  
ISO 7367-3  
ISO 7637-1  
SAE J1113-11  
SAE J1113-12  
SAE J1113-42  
SAE J1113-1  
SAE J1455 (Sec. 4.13.2.1-4.13.2.2.2)  
2004/104/EC (ANNEX 10)  
2006/28/EC (ANNEX 10)  
CNS 14498-2  
CNS 14498-3  
CNS 14498-1  
ECE R10 (ANNEX 10)  
EN 50498 (Sec. 7.3 - 7.4)  
pulse 1(-75 V to -600V)  
pulse 2a(+37 V to 50 V)  
pulse 2b  
pulse 3a(-112 V to -200 V)  
pulse 3b(+75 V to 200 V)

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

E002 EMC  
JASO D001-1994 (Sec.5.7)  
Type A-1:70 V/200 ms  
Type A-2:110 V/2.5 ms  
Type B-1:-80 V/60 ms  
Type B-2:-260 V/2 ms  
Type C:100 V  
Type D-1:110 V/400 ms  
Type D-2:170 V/2.5 ms  
Type E:-320 V/26 ms  
Type F:100 V

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris



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E002 EMC  
SAE J1113-2  
SAE J1113-1  
SAE J1455 (Sec. 4.13.3)  
JASO D001-1994 (Sec. 5.9)  
frequency range:15 Hz to 250 kHz

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

22.05 Transportation Equipment  
Electric Vehicle Conductive Charging System  
E002 EMC  
IEC 61851-21 (Sec. 9)  
EN 61851-21 (Sec. 9)  
CNS 15511-3 (Sec. 6.2.15)  
Conducted Interference:150 kHz to 30 MHz  
Radiated Interference:30 MHz to 1 GHz  
Electric Vehicle Conductive Charging System - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

22.99 Transportation Equipment  
Traffic Controller Assemblies  
E002 EMC  
NEMA TS2 (Sec. 2.1.6,2.1.7,2.1.8)  
Interference Voltage:±300 V to ±1000 V

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

22.99 Transportation Equipment  
Maritime navigation and radiocommunication equipment  
E002 EMC  
IEC 60945 (Sec. 9,10)  
EN 60945 (Sec. 9,10)  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:150 kHz to 40 GHz  
Maritime navigation and radiocommunication equipment - EMS TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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▼ 22.99 Transportation Equipment  
Railway applications equipment  
E002 EMC  
EN 50121-1  
IEC 62236-1  
EN 50121-3-2  
IEC 62236-3-2  
EN 50121-4  
IEC 62236-4  
EN 50155 (Sec. 12.2.2, 12.2.6 to 12.2.9)  
IEC 60571 (Sec. 10.2.2, 10.2.6 to 10.2.9)  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz  
Railway applications equipment - EMS, Performance, Insulation TEST

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

**Accreditation Program for Designated Testing Laboratory for Commodities Inspection**

▼ 18.01 Commodity  
Electrical Lighting and similar equipment  
E002 EMC  
CNS 14115  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:9 kHz to 30 MHz (2 m Loop Antenna)  
Radiated Interference:30 MHz to 300 MHz  
Interference power: 30 MHz to 300MHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

▼ 18.02 Commodity  
Household appliances  
E002 EMC  
CNS 13783-1  
(except click rate test)  
Conducted Interference:9 kHz to 30 MHz  
Interference Power test:30 MHz to 300 MHz  
Radiated Interference:30 MHz to 1 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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**財團法人全國認證基金會**  
**Taiwan Accreditation Foundation**

18.04 Commodity

Sound and TV broadcast receivers and associated equipment

E002 EMC

CNS 13439

Conducted Interference:9 kHz to 30 MHz

Disturbance Voltage at the Antenna Terminals :30 MHz to 2150 MHz

Interference Power test:30 MHz to 300 MHz

Radiated Interference:30 MHz to 1 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.06 Electronic and Electric

Uninterruptible power  
systems (UPS)

E002 EMC

CNS 14757-2

Conducted Interference:9 kHz to 30 MHz

Radiated Interference:30 MHz to 1 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

19.11 Electronic and Electric

electric tools and Similar apparatus

E002 EMC

CNS 13783-1

(Click exclusived)

Conducted Interference:9 kHz to 30 MHz

Interference Power test:30 MHz to 300 MHz

Radiated Interference:30 MHz to 1 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

20.21 Information Technology and Communication

Information Technology Equipment

E002 EMC

CNS 13438

Conducted Interference:9 kHz to 30 MHz

Radiated Interference:30 MHz to 6 GHz

Site VSWR:1 GHz to 6 GHz/3 m Tin-Fu Laboratory OATS 1,3,5 & Chamber 3

Approval Signatory: CHANG, Wilson; TSAI, Gimmy



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財團法人全國認證基金會  
Taiwan Accreditation Foundation

22.01 Transportation Equipment

ESA

E002 EMC

CISPR 25

EN55025

CNS 14500

Conducted Interference: 150 kHz to 108 MHz

Radiated Interference: 150 kHz to 2 GHz

voltage: 12 Vdc/24 Vdc

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC

ISO 10605

CNS 14499

Air Discharge: (0 to 30) kV

Contact Discharge: (0 to 30) kV

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC

ISO 11452-2

ISO 11452-1

CNS 15207-2

CNS 15207-1

frequency range: 20 MHz to 3 GHz

field strength: 100 V/m

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

E002 EMC

ISO 11452-3

ISO 11452-1

CNS 15207-3

CNS 15207-1

frequency range: 400 MHz

field strength: 200 V/m

Approval Signatory: CHANG, Wilson; ZONG, Sam; LIN, Chris

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**財團法人全國認證基金會**  
**Taiwan Accreditation Foundation**

E002 EMC  
ISO 11452-4  
ISO 11452-1  
CNS 15207-4  
CNS 15207-1  
frequency range:100 kHz to 1 GHz  
Current:200 mA

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

E002 EMC  
ISO 7637-1  
ISO 7367-2  
ISO 7637-3  
CNS 14498-1  
CNS 14498-2  
CNS 14498-3  
pulse 1(-75 V to -600V)  
pulse 2a(+37 V to 50 V)  
pulse 2b  
pulse 3a(-112 V to -200 V)  
pulse 3b(+75 V to 200 V)  
pulse 4  
pulse 5a/5b(65 V to 174 V)

Approval Signatory: CHANG, Wilson;ZONG, Sam;LIN, Chris

**Accreditation Program for Telecommunication Equipment Testing Laboratory**

20.13 Information Technology and Communication

Low Power Wireless Electrical and Electronic Equipment

E004 Telecommunications

Low Power RF Equipment Technology specification

NCC LP 0002

47 CFR FCC Part 15 Subpart C, E

47 CFR FCC Part 22 Subpart H

47 CFR FCC Part 24 Subpart E

Canada RSS-GEN

Canada RSS-132

Canada RSS-133

Canada RSS-210

Canada RSS-310

Frequency range:9 kHz to 40 GHz

Approval Signatory: LIU, Jerry;CHANG, Wilson

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Certificate No. : L1113-121105

**財團法人全國認證基金會**  
**Taiwan Accreditation Foundation**

**Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities**

19.99 Electronic and Electric  
Industrial, scientific and medical (ISM) radio-frequency equipment  
E002 EMC  
47 CFR FCC Part 18  
FCC MP-5  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

20.21 Information Technology and Communication  
Information Technology Equipment  
E002 EMC  
47 CFR FCC Part 15 Subpart B  
ANSI C63.4  
Conducted Interference:9 kHz to 30 MHz  
Radiated Interference:30 MHz to 40 GHz

Approval Signatory: CHANG, Wilson; TSAI, Gimmy

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