Nemko Laboratory Authorisation
Aut. No.: ELA 212

EMC Laboratory:	**Central Research Technology Co. NO. 11, Lane 41, Fushuen St. 104, Taipei TAIWAN, R.O.C**
Scope of Authorization:	**All CENELEC standards [ENs] for EMC and standards for radio transmission that are listed on the accompanying page, and, all of the corresponding CISPR, IEC and ISO EMC standards that are listed on the accompanying page.**

Nemko has assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA -10. During the visit by the Nemko representative it was found that the Laboratory is capable of performing tests within the Scope of the Authorization.

Accordingly, Nemko will normally accept test results from the laboratory on a partial or complete basis for certification of the products.
In order to maintain the Authorisation, the information given in the pertinent NLA-10 must be carefully followed. Nemko is to be promptly notified about any changes in the situation at the Laboratory, which may affect the basis for this Authorisation. The Authorisation may be withdrawn at any time if the conditions are no longer considered to be fulfilled.

The Authorization is valid through December 31, 2013.

Espoo, Finland **April 27, 2011**
For Nemko :

Janne Nyman, Nemko ELA Auditor Taiwan

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SCOPE OF AUTHORIZATION

BASIC TESTS AND ASSOCIATED STANDARDS

Capability to perform a basic test implies also that any product (family) standard calling up this basic test is also within the scope if mentioned below or not.

Disturbance emissions		
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, re.: EN 55011 (CISPR 11), EN 60945 (IEC 60945)	***Electromagnetic radiation disturbance, 30 to 1000 MHz, re.:*** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55022 (CISPR 22), EN 60945 (IEC 60945) ANSI C63.4	***Electromagnetic radiation disturbance, above 1 GHz, re.:*** EN 55011 (CISPR 11), EN 55022 (CISPR 22) EN 60945 (IEC 60945)
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, "Van Veen loop", re: EN 55015 (CISPR 15)	***Mains terminal disturbance voltage, re.:*** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55014-1 (CISPR 14-1), EN 55015 (CISPR 15) EN 55022 (CISPR 22), EN 60945 (IEC 60945), ANSI C63.4	***Conducted common-mode disturbance power, 30-1000 MHz, re.:*** EN 55013 (CISPR 13), EN 55014-1 (CISPR 14-1)
Conducted terminal disturbance, Hi-Z probe, re: EN 55011 (CISPR 11) EN 55014-1 (CISPR 14-1)	***Conducted discontinuous disturbance on power port, re.:*** EN 55014-1 (CISPR 14-1), section 4.2	***Conducted common-mode disturbance at telecom/network ports, re.:*** EN 55022 (CISPR 22)
Conducted antenna terminal disturbance, re: EN 55013 (CISPR 13)	***Harmonic current emissions, re.:*** EN 61000-3-2 (IEC 61000-3-2)	***Voltage fluctuations and flicker in low-voltage supply systems, re.:*** EN 61000-3-3 (IEC 61000-3-3)
Immunity		
Electrostatic discharge immunity test, re.: EN 61000-4-2 (IEC 61000-4-2)	***Radiated, radio-frequency, electromagnetic field immunity test, re.:*** EN 61000-4-3 (IEC 61000-4-3) ENV 50204	***Electrical fast transient/burst immunity test, re.:*** EN 61000-4-4 (IEC 61000-4-4)
Surge immunity test, re.: EN 61000-4-5 (IEC 61000-4-5)	***Immunity to conducted disturbances, induced by radio-frequency fields, re.:*** EN 61000-4-6 (IEC 61000-4-6)	***Power frequency magnetic field Immunity test, re.:*** EN 61000-4-8 (IEC 61000-4-8)
Immunity to voltage dips, short interruptions and voltage variation, re.: EN 61000-4-11 (IEC 61000-4-11)	***Damped oscillatory wave, re:*** EN 61000-4-12 (IEC 61000-4-12)	BLANK

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Unless specifically noted, only the sections of the standards below which are covered by the capability listing above are assumed covered by this authorisation. When the capability is expanded, more parts of the product standards will be covered.

PRODUCT-FAMILY STANDARDS		
Alarm systems – immunity EN 50130-4:1995 + A1:1998 (doc=exp) + A2:2003 (doc=exp)	***Road traffic signal systems*** EN 50293:2000 (doc=exp)	***UPS – Uninterruptible power supplies*** EN 62040-2:2006 (doc=exp) IEC 62040-2:2005
ISM equipment, emission EN 55011:2009 (doc=1.9.2012)+ A1 :2010 (doc=1. 7.2013) CISPR 11:2009 (mod) + A1 :2010 EN 55011:2007 + A2 :2007 (doc=exp) CISPR 11:2003 + A1 :2004 (mod)	***Broadcast receivers – emission*** EN 55013 :2001 +A1:2003 + A2:2006 (doc=exp) CISPR 13 :2001 (mod) + A1:2003 + A2:2006	***Household appliances – emission*** EN 55014-1 :2006 (doc=exp) CISPR 14-1 :2005 EN 55014-1 :2000 + A1 :2001 + A2 :2002 (doc=exp) CISPR 14-1 :2000 + A1 :2001 + A2 :2002
Household appliances - immunity EN 55014-2:1997 (doc=exp)+ A1:2001 (doc=exp) + A2:2008 (doc=1.9.2011) CISPR 14-2:1997 + A1:2001 + A2:2008	***Electrical lighting – emission*** EN 55015:2006 (doc=exp) + A1:2007 (doc=exp)+ A2:2009 (doc=1.3.2012) CISPR 15:2005 + A1:2006 + A2:2008	***Broadcast receives - immunity*** EN 55020:2007 (doc=exp) CISPR 20:2006 EN 55020:2002 + A1:2003 + A2:2005 (doc=exp) CISPR 20:2002 +A1:2002 + A2:2004
ITE - emission EN 55022:2006 (doc=1.10.11) + A1 :2007 (doc=1.10.11) CISPR 22:2005 (mod)+A1 :2005 EN 55022:1998 + A1:2000 + A2:2003 (doc=exp) CISPR 22:1997 + A1:2000 + A2:2002	***ITE – immunity*** EN 55024:2010 CISPR 24:2010 EN 55024:1998 + A1:2001 + A2:2003 (doc=exp) CISPR 24:1997 (mod)+ A1:2001 + A2:2002	***Collateral EMC standard for Medical Devices*** EN 60601-1-2:2007 IEC 60601-1-2:2007 (mod) EN 60601-1-2:2001 (doc=exp) IEC 60601-1-2:2001 EN 60601-2-x as applicable to EMC
Harmonics EN 61000-3-2 :2006 (doc=exp) A1 :2009 (doc=1. 7.2012) + A2 :2009 (doc=1. 7.2012) IEC 61000-3-2 :2005 A1 :2008 + A2 :2009	***Flicker*** EN 61000-3-3:2008 (doc=1.9.2011) IEC 61000-3-3:2008 EN 61000-3-3:1995 + A1:2001 A2:2005 (doc=exp) IEC 61000-3-3:1994 + A1:2001 + A2:2005 EN 61000-3-11:2000 (doc=exp) IEC 61000-3-11:2000	***Generic immunity - light*** EN 61000-6-1:2007 (doc=exp) IEC 61000-6-1:2005
Generic immunity – Industrial EN 61000-6-2:2005 (doc=exp) IEC 61000-6-2:2005	***Generic emission – light*** EN 61000-6-3 :2007 (doc=exp) IEC 61000-6-3 :2006	***Generic emission - industry*** EN 61000-6-4 :2007 (doc=exp) IEC 61000-6-4:2006
PS – Power supply EN 61204-3:2000 (doc=exp) IEC 61204-3:2000	***Laboratory equipment*** EN 61326-1:2006 (doc=exp) IEC 61326-1:2005 EN 61326-2-x:2006 IEC 61326-2-x:2005/2006	***Electrical lighting – immunity*** EN 61547:2009 (doc=1. 7.2012) IEC 61547:2009 EN 61547:1995 + A1:2000 (doc=exp) IEC 61547:1995 + A1:2000
Short Range Devices (SRD); Radio equipment; 25 MHz to 1 000 MHz EN 300 220-2 V 2.3.1 (doc=31.5.13) EN 300 220-2 V 2.1.2 (doc=exp)	***Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz*** EN 300 330-2 V 1.5.1 (doc=30.11.11) EN 300 330-2 V 1.3.1 (doc=exp)	***Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range*** EN 300 440-2 V 1.3.1 (doc=exp)
Wideband transmission systems; 2,4 GHz ISM band EN 300 328 V 1.7.1:2006 (doc=exp)	***Short-Range Devices (SRD) frequencies between 9 kHz and 40 GHz*** EN 301 489-1 V 1.8.1 (doc=31.1.11) EN 301 489-1 V 1.6.1 (doc=exp) EN 301 489-3 V 1.4.1 (doc=exp)	***Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment*** EN 301 489-1 V 1.8.1 (doc=31.1.11) EN 301 489-1 V 1.6.1 (doc=exp) EN 301 489-17 V 2.1.1 (doc=1.10.11) EN 301 489-17 V 1.3.2 (doc=exp)
IMT-2000 CDMA Direct Spread (UTRA) for Mobile and portable (UE) radio and ancillary equipment EN 301 489-1 V 1.8.1 (doc=31.1.11) EN 301 489-1 V 1.6.1 (doc=exp) EN 301 489-24 V 1.4.1 (doc=exp)	BLANK	BLANK