



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

CKC LABORATORIES, INC.
Mariposa, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005*).



Presented this 28th day of March 2007.

A handwritten signature in cursive script, reading "Peter M. Meyer".

President

For the Accreditation Council

Certificate Number 0803.01

Valid to January 31, 2009

For the tests or types of tests to which this accreditation applies,
please refer to the laboratory's Electrical Scope of Accreditation.

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

CKC LABORATORIES, INC.
5046 Sierra Pines Drive
Mariposa, CA 95338
Steve Behm Phone: 209 966 5240

ELECTRICAL (EMC)

Valid to: January 31, 2009

Certificate Number: 0803.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following Emissions, Immunity, Wireless and Military tests for electrical equipment:

The following test sites are accredited for the test descriptions as indicated below:

Site A	EMC Emissions and Transmitter Characteristics Testing
Site C	EMC Immunity (Susceptibility) Testing
	Military / Aerospace Emissions and Immunity Testing
Site D	EMC Emissions and Transmitter Characteristics Testing

The following test standards are accredited to the indicated test site(s):

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
<i>AUSTRALIA / NEW ZEALAND</i>		
AS/NZS 4245.1	A, C & D	Information technology - Telecommunications and information exchange between systems - Open Systems Interconnection - Transport protocol identification mechanism
AS/NZS 4251.1	A & D	Electromagnetic compatibility (EMC) - Generic emission standard - Residential, commercial and light industry
AS/NZS 4251.2	A & D	Electromagnetic compatibility (EMC) - Generic emission standard - Industrial environments
AS/NZS 4252.1	C	Electromagnetic compatibility (EMC) - Generic immunity standard - Residential, commercial and light industry
AS/NZS 4268	A & D	Radio equipment and systems - Short range devices - Limits and methods of measurement
AS/NZS 4448	A & D	Limits and methods of measurement of radio disturbance characteristics for the protection of receivers used on board vehicles
AS/NZS CISPR 11	A & D	Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement
AS/NZS CISPR 14.1	A & D	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Emission

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
AS/NZS CISPR 14.2	C	Electromagnetic compatibility - Requirements for household appliances electric tools and similar apparatus - Immunity - Product family standard
AS/NZS CISPR 22	A & D	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
<i>BELLCORE</i>		
GR-499	A, C & D	Transport Systems Generic Requirements (TSGR) Common Requirements: (A Module of TSGR, FR-440) [Sections 14.1, 14.2, 4.3]
GR-1089	A, C & D	Electromagnetic compatibility and electrical safety generic criteria for network telecommunication equipment (a module of LSSGR, FR-64 and TSGR, FR-440) [Section 2, 3 & 4] [Excluding Section 4.7, First and Second Level AC power fault tests]
<i>CANADA</i>		
* Indicates on-site test services available for indicated standards		
BETS-1	A & D	Technical Standards and Requirements for Low Power Announce Transmitters in the Frequency Bands 525-1,705 KHz and 88-107.5 MHz
BETS-4*	A & D	Technical Standards and Requirements for Television Broadcasting Transmitters
BETS-5*	A & D	Technical Standards and Requirements for AM Broadcasting Transmitters
BETS-6*	A & D	Technical Standards and Requirements for FM Broadcasting Transmitters
BETS-7	A & D	Technical Standards and Requirements for Radio Apparatus Capable of Receiving Broadcasting
BETS-8*	A & D	Technical Standards and Requirements for FM Transmitters Operating in Small Remote Communities
BETS-9	A & D	Technical Standards and Requirements for Television Transmitters Operating in Small Remote Communities
ICES 001	A & D	Industrial, Scientific and Medical (ISM) Radio Frequency Generators
ICES 003	A & D	Digital Apparatus
ICES 004	A & D	Alternating Current High Voltage Power Systems
ICES 005	A & D	Radio Frequency Lighting Devices
ICES 006	A & D	AC Wire Carrier Current Devices (Unintentional Radiators)
RSS-102	A & D	Evaluation Procedure for Mobile and Portable Radio Transmitters With Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields
RSS-111	A & D	Broadband Public Safety Equipment Operating in the Band 4940-4990 MHz
RSS-117	A & D	Land and Coast Station Transmitters using A1, A2, A3, A2H, or A3H Emissions Operating in the 200 - 535 KHz Band

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
RSS-118	A & D	Land and Subscriber Stations: Voice, Data and Tone Modulated, Angle Modulation Radiotelephone Transmitters and Receivers Operating in the Cellular Mobile Bands 824 - 849 MHz and 869 - 894 MHz
RSS-119	A & D	Land Mobile and Fixed Radio Transmitters and Receivers, 27.41 to 960 MHz
RSS-123	A & D	Low Power Licensed Radiocommunication Devices
RSS-125	A & D	Land Mobile and Fixed Radio Transmitters and Receivers, 1.705 to 50.0 MHz, Primarily Amplitude Modulated
RSS-128	A & D	800 MHz Dual-Mode TDMA Cellular Telephones
RSS-129	A & D	800 MHz Dual-Mode CDMA Cellular Telephones
RSS-130	A & D	Digital Cordless Telephones in the Band 944 to 948.5 MHz
RSS-131	A & D	Zone Enhancers for the Land Mobile Service
RSS-132	A & D	800 MHz Cellular Telephones Employing New Technologies
RSS-133	A & D	2 GHz Personal Communication Services
RSS-134	A & D	900 MHz Narrowband Personal Communications Services
RSS-135	A & D	Digital Scanner Receivers
RSS-136	A & D	Land and Mobile Station Radiotelephone Transmitters and Receivers Operating in the 26.960 - 27.410 MHz General Radio Service Band
RSS-137	A & D	Location and Monitoring Service (902-928 MHz)
RSS-138	A & D	Commercial Shipborne Radar in the 2900-3100 MHz, 5470-5650 MHz and 9225-9500 MHz Bands
RSS-141	A & D	Aeronautical Radiocommunication Equipment in the Frequency Band 117.975-137 MHz
RSS-142	A & D	Narrowband Multipoint Communication Systems in the 1427-1430 MHz and 1493.5-1496.5 MHz Bands
RSS-170	A & D	Satellite Mobile Earth Stations
RSS-181	A & D	Coast and Ship Station Single Sideband Radiotelephone Transmitters and Receivers Operating in the 1 605 - 28 000 KHz Band
RSS-182	A & D	Maritime Radio Transmitters and Receivers in the Band 156-162.5 MHz
RSS-188	A & D	Global Maritime Distress and Safety System (GMDSS)
RSS-191	A & D	Local Multipoint Communication Systems in the 28 GHz Band; Point-to-Point and Point-to-Multipoint Broadband Communication Systems in the 24 GHz and 38 GHz Bands
RSS-192	A & D	Fixed Wireless Access Equipment Operating in the Band 3450-3650 MHz
RSS-193	A & D	Multipoint and Point-to-Point Communication Systems (MCS) in the Fixed Service Operating in the 2150-2160 MHz, 2500-2596 MHz and 2686-2690 MHz Bands
RSS-195	A & D	Wireless Communications Service Equipment Operating in the Bands 2305-2320 MHz and 2345-2360 MHz

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
RSS-210	A & D	Low Power License-Exempt Radiocommunication Devices (All Frequency Bands)
RSS-213	A & D	2 GHz License - Exempt Personal Communications Service Devices (PCS)
RSS-215	A & D	Analogue Scanner Receivers
RSS-243	A & D	Active Medical Implant Communications System Devices in the 402-405 MHz Band
RSS-287	A & D	Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD)
RSS-310	A & D	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category II Equipment
RSS-GEN	A & D	General Requirements and Information for the Certification of Radiocommunication Equipment

EUROPEAN UNION

Includes EMC and R&TTE Directive Standards

For R&TTE Directive, article 3.1a, safety provisions are excluded.

12015	A & D	Electromagnetic Compatibility - Product Family Standard For Lifts, Escalators And Passenger Conveyors - Emission
12016	C	Electromagnetic Compatibility - Product Family Standard For Lifts, Escalators And Passenger Conveyors - Immunity
12184	A, C & D	Electrically Powered Wheelchairs, Scooters And Their Chargers - Requirements And Test Methods [Section 9.8 Only]
300 086-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Radio equipment with an internal or external RF connector intended primarily for analogue speech; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
300 113-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
300 162-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
300 162-3	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands; Part 3: Harmonized EN covering essential requirements of article 3.3 (e) of the R&TTE Directive
300 219-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Radio equipment transmitting signals to initiate a specific response in the receiver; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
300 220-3	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW, Part 3: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
300 328-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
300 329	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for Digital Enhanced Cordless Telecommunications (DECT) equipment
300 330-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); 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; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
300 340	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European Radio Message System (ERMES) paging receivers
300 342-1	C	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz);Part 1: Mobile and portable radio and ancillary equipment
300 342-2	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz);Part 2: Base station radio and ancillary equipment
300 342-3	A, C & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 3: Base station radio and ancillary equipment and repeaters meeting Phase 2 GSM requirements
300 385	A, C & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for fixed radio links and ancillary equipment

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
300 386	A, C & D	Electromagnetic compatibility and radio spectrum matters (ERM); Telecommunication network equipment;
300 422-2	A & D	Electromagnetic compatibility (EMC) requirements Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
300 433-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Double Side Band (DSB) and/or Single Side Band (SSB) amplitude modulated citizen's band radio equipment; Part 2: Harmonized EN covering essential requirements under article 3.2 of R&TTE Directive
300 440-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
300 445	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for wireless microphones and similar Radio Frequency (RF) audio link equipment
300 446	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for second generation Cordless Telephone (CT2) apparatus operating in the frequency band 864,1 MHz to 868,1 MHz, including public access services
300 676-1	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Ground-based VHF hand-held, mobile and fixed radio transmitters, receivers and transceivers for the VHF aeronautical mobile service using amplitude modulation; Technical characteristics and methods of measurement
300 683	A, C & D	Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for Short Range Devices (SRD) operating on frequencies between 9 KHz and 25 GHz
300 826	A, C & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for 2,4 GHz wideband transmission systems and High Performance Radio Local Area Network (HIPERLAN) equipment
300 829	A, C & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for Maritime Mobile Earth Stations (MMES) operating in the 1,5/1,6 GHz bands providing Low Bit Rate Data Communications (LBRDC) for the Global Maritime Distress and Safety System (GMDSS)
300 836	A & D	Broadband Radio Access Networks (BRAN); High Performance Radio Local Area Network (HIPERLAN) Type 1; Conformance testing specification; Part 1: Radio type approval and Radio Frequency (RF) conformance test specification

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
301 489 1 thru 26	A, C & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Parts 1-26, general and specific conditions
301 502	A & D	Harmonized EN for Global System for Mobile communications (GSM); Base Station and Repeater equipment covering essential requirements under article 3.2 of the R&TTE directive
301 751	A & D	Fixed Radio Systems; Point-to-Point equipments and antennas; Generic harmonized standard for Point-to-Point digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the 1999/5/EC Directive
301 753	A & D	Fixed Radio Systems; Multipoint equipment and antennas; Generic harmonized standard for multipoint digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the Directive 1999/5/EC
301 893	A & D	Broadband Radio Access Networks (BRAN); 5 GHz hiGH performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive
301 908-1 thru 11	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks
302 208-2	A & D	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
50065-1	A & D	Specification for signaling on low-voltage electrical installations in the frequency range 3 KHz to 148.5 KHz - Part 1. General requirements, frequency bands and electromagnetic disturbances
50065-2	C	Specification for signaling on low-voltage electrical installations in the frequency range 3 KHz to 148.5 KHz - part 1. General requirements, frequency bands and electromagnetic disturbances
50083-2	A, C & D	Cable networks for television signals, sound signals and interactive services - part 2: electromagnetic compatibility for equipment
50130-4	C	Alarm systems - part 4: electromagnetic compatibility - product family standard: immunity requirements for components of fire, intruder and social alarm systems
50199	A, C & D	Electromagnetic compatibility (EMC) - product standard for arc welding equipment
50204	C	Radiated electromagnetic field from digital radio telephones - immunity test (900MHz 5MHz Keyed Carrier)
50270	A, C & D	Electromagnetic compatibility - electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen
50370-1	A & D	Electromagnetic compatibility (EMC) - product family standard for machine tools - Part 1: emissions.

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
50370-2	C	Electromagnetic Compatibility (EMC) - Product family standard for machine tools - Part 2: Immunity
55011	A & D	Industrial, scientific and medical (ISM) radio-frequency equipment - radio disturbance characteristics - limits and methods of measurement
55013	A & D	Sound and television broadcast receivers and associated equipment - radio disturbance characteristics - limits and methods of measurement
55014-1	A & D	Electromagnetic compatibility - requirements for household appliances, electric tools and similar apparatus - part 1: emission
55014-2	C	Electromagnetic compatibility - requirements for household appliances, electric tools and similar apparatus - Part 2: immunity - product family standard
55015	A & D	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
55020	C	Sound and television broadcast receivers and associated equipment - immunity characteristics - limits and methods of measurement
55022	A & D	Information technology equipment - radio disturbance characteristics - limits and methods of measurement
55024	C	Information technology equipment - immunity characteristics - limits and methods of measurement
55103-1	A & D	Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Emission
55103-2	C	Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Immunity
55104	C	Electromagnetic compatibility - immunity requirements for household appliances, tools and similar apparatus - product family standard
60555-2	A & D	Disturbances in supply systems caused by household appliances and similar electrical equipment. Part 2: harmonics
60555-3	A & D	Disturbances in supply systems caused by household appliances and similar electrical equipment. Part 3: voltage fluctuations
60601-1-2	A, C & D	Medical electrical equipment - Part 1-2: general requirements for safety - collateral standard: electromagnetic compatibility - requirements and tests
60601-2-10	A, C & D	Medical electrical equipment - Part 2.10: particular requirements for the safety of nerve and muscle stimulators
60601-2-37	A, C & D	Medical electrical equipment - Part 2-37: particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment
60601-2-4	A, C & D	Medical electrical equipment - Part 2-4: particular requirements for the safety of cardiac defibrillators
60801-2	C	Electromagnetic compatibility for industrial-process measurement and control equipment Part 2. Electrostatic discharge requirements

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
60945	A, C & D	Maritime navigation and radiocommunication equipment and systems -general requirements - methods of testing and required test results
61000-3-2	A, C & D	Electromagnetic compatibility (EMC) - Part 3: limits - Section 2: limits for harmonic current emissions (equipment input current less than/equal to 16 A per phase)
61000-3-3	A, C & D	Electromagnetic compatibility (EMC) - Part 3. Limits - section 3. Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current less than or equal to 16 A
61000-4-2	C	Electromagnetic compatibility (EMC) - Part 4-2: testing and measurement techniques - electrostatic discharge immunity test
61000-4-3	C	Electromagnetic compatibility (EMC) - Part 4-3: testing and measurement techniques - radiated, radio-frequency, electromagnetic field immunity test
61000-4-4	C	Electromagnetic compatibility (EMC) - Part 4-4: testing and measurement techniques - electrical fast transient/burst immunity test
61000-4-5	C	Electromagnetic compatibility (EMC) - Part 4-5. Testing and measurement techniques - surge immunity test
61000-4-6	C	Electromagnetic compatibility (EMC) - Part 4-6: testing and measurement techniques - immunity to conducted disturbances, induced by radio-frequency fields
61000-4-8	C	Electromagnetic compatibility (EMC) - Part 4. Testing and measurement techniques - section 8. Power frequency magnetic field immunity test basic EMC publication
61000-4-11	C	Electromagnetic compatibility (EMC) - Part 4: testing and measuring techniques - Section 11: voltage dips, short interruptions and voltage variations immunity tests
61000-6-1	C	Electromagnetic compatibility (EMC) generic standards. Immunity for residential, commercial and light-industrial environments
61000-6-2	C	Electromagnetic compatibility (EMC) - Part 6-2. Generic standards immunity for industrial environments
61000-6-3	A & D	Electromagnetic compatibility (EMC) Part 6-3: emission standard for residential, commercial and light-industrial environments
61000-6-4	A & D	Electromagnetic compatibility (EMC) Part 6-4: emission standard for industrial environments
61326	A, C & D	Electrical equipment for measurement, control and laboratory use -EMC requirements
61547	C	Equipment for general lighting purposes - EMC immunity requirements

IDA SINGAPORE**STANDARD****CAPABLE
SITE(S)****DESCRIPTION OF STANDARD**

IDA TS CT-CTS	A & D	Technical specification for cordless telephone and cordless telecommunication systems [excluding dect and phs]
IDA TS SRD	A & D	Technical specification for short range devices
IDA TS AR	A & D	Technical specification for amateur radio equipment
IDA TS 3G-BS	A & D	Technical specification for imt-2000 third generation (3g) cellular base station and repeater system
IDA TS WBA	A & D	Technical specification for wireless broadband access (WBA) equipment
IDA TS LMR	A & D	Technical specification for land mobile radio equipment
IDA TS RPG	A & D	Technical specification for radio pagers (for public paging service)
IDA TS EMC	A, C & D	EMC requirements for telecommunication equipment
IDA TS GMPCS	A, C & D	Technical specification for Global Mobile Personal Communication by Satellite (GMPCS) Terminals
IDA TS GSM-MT	A, C & D	Technical specification for GSM Mobile Terminals
IDA TS GSM-BS	A, C & D	Technical specification for GSM base station and repeater equipment
IDA TS 3G-MT	A, C & D	Technical specification for IMT-2000 third generation (3G) cellular mobile terminals

INTERNATIONAL

CISPR 11	A & D	Industrial, scientific and medical (ISM) radio-frequency equipment- electromagnetic disturbance characteristics - limits and methods of measurement
CISPR 13	A & D	Sound and television broadcast receivers and associated equipment - radio disturbance characteristics - limits and methods of measurement
CISPR 14-1	A & D	Electromagnetic compatibility - requirements for household appliances, electric tools and similar apparatus - Part 1: emission
CISPR 14-2	C	Electromagnetic compatibility – requirements for household appliances, electric tools, and similar apparatus – Part 2: Immunity-Product Family Standard
CISPR 15	A & D	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
CISPR 20	C	Sound and television broadcast receivers and associated equipment - immunity characteristics - limits and methods of measurement
CISPR 22	A & D	Information technology equipment - radio disturbance characteristics - limits and methods of measurement
CISPR 25	A, C & D	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices - limits and methods of measurement
IEC 60601-1-2	A, C & D	Medical electrical equipment - Part 1: general requirements for safety 2. Collateral standard: electromagnetic compatibility - requirements and tests

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
IEC 60945	A, C & D	Maritime navigation and radiocommunication equipment and systems -general requirements - methods of testing and required test results
IEC 60533	A, C & D	Electromagnetic compatibility of electrical and electronic installations in ships

JAPAN

<u>STANDARD</u>	<u>CAPABLE SITE(S)</u>	<u>DESCRIPTION OF STANDARD</u>
VCCI – 1/2	A & D	Agreement of voluntary control council for interference by information technology equipment

KOREA

MIC RULE 179	A & D	Rules on radio equipment
MIC NOTICE 2007-11	A & D	Technical requirements for unlicensed radio equipment
RRL NOTICE 2005-22	A & D	Technical requirements for radio equipment for maritime mobile service & maritime radio navigation service
RRL NOTICE 2005-23	A & D	Technical requirements for the radio equipment of aeronautical mobile service and aeronautical radio navigation service
RRL NOTICE 2005-105	A & D	Technical requirements for the radio equipment of telecommunication service
RRL NOTICE 2006-67	A, C & D	Conformity assessment procedure for electromagnetic interference
RRL NOTICE 2006-126	A & D	Technical requirements for EMI
RRL NOTICE 2006-127	C	Technical requirements for EMS
RRL NOTICE 2006-129	C	Conformity assessment procedure for electromagnetic susceptibility
RRL NOTICE 2007-20	A & D	Conformity assessment procedure for type official approval and type registration of radio equipment.
RRL NOTICE 2007-22	A & D	Technical requirements for the radio equipment for other services than broadcasting, maritime, aeronautical and telecommunications service.
RRL NOTICE 2007-40	A & D	Technical requirements for the radio equipment for maritime mobile service & maritime radio navigation service
KN 11	A & D	CISPR 11:2004-06
KN 13	A & D	CISPR 13:1998-12
KN 14-1	A & D	CISPR 14-1:1998-12
KN 15	A & D	CISPR 15:1998-12
KN 20	C	CISPR 20:1998-08
KN 22	A & D	CISPR 22:2005-04
KN 60*	A & D	CONFORMITY ASSESSMENT PROCEDURE FOR INTERFERENCE OF POWER-LINE COMMUNICATION EQUIPMENT
KN 61000-4-2	C	IEC 61000-4-2:2001-04
KN 61000-4-3	C	IEC 61000-4-3:2002-09
KN 61000-4-4	C	IEC 61000-4-4:2004-07

Korea (cont'd)

KN 61000-4-5	C	IEC 61000-4-5:2001-04
KN 61000-4-6	C	IEC 61000-4-6:2004-11
KN 61000-4-8	C	IEC 61000-4-8:2001-03
KN 61000-4-11	C	IEC 61000-4-11:2004-03
KN 60601-1-2	A, C & D	IEC 60601-1-2:2004-11

SAE

J1752-2	A & D	Measurement of radiated emissions from integrated circuits - surface scan method (loop probe method) 10 MHz to 3 GHz
J551-1	A, C & D	Performance levels and methods of measurement of electromagnetic compatibility of vehicles, boats (up to 15 m), and machines (16.6 Hz to 18 GHz)
J551-2	A, C & D	Test limits and methods of measurement of radio disturbance characteristics of vehicles, motorboats, and spark-ignited engine- driven devices
J551-4	A, C & D	Test limits and methods of measurement of radio disturbance characteristics of vehicles and devices, broadband and narrowband, 150 KHz to 1000 MHz
J551-5	A, C & D	Performance levels and methods of measurement of magnetic and electric field strength from electric vehicles, broadband, 9 KHz to 30 MHz

STANDARD**CAPABLE
SITE(S)****DESCRIPTION OF STANDARD**

J551-11	C	Vehicle electromagnetic immunity - off-vehicle source
J551-12	C	Vehicle electromagnetic immunity - on-board transmitter simulation
J551-13	C	(R) vehicle electromagnetic immunity - bulk current injection
J551-15	C	Performance level and methods of measurement of electromagnetic compatibility of vehicles, boats (up to 15 m), and machines (50 Hz to 15 GHz) Part 15 vehicle electromagnetic immunity - electrostatic discharge (ESD)
J551-17	C	(R) vehicle electromagnetic immunity - power line magnetic fields
J1113 – 11	C	Immunity to conducted transients on power leads
J1113 – 21	C	Electrical interference by conduction and coupling - coupling clamp and chattering relay
J1113 – 22	C	Electromagnetic compatibility measurement procedure for vehicle components-Part 22 - immunity to radiated magnetic fields
J1113 – 41	C	Limits and methods of measurement of radio disturbance characteristics of components and modules for the protection of receivers used on board vehicles
J1455	C	Joint SAE/TMC recommended environmental practices for electronic equipment design (heavy-duty trucks) [Sections: 4.11.1.1, 4.11.1.2, 4.11.2.2.1, 4.11.2.2.3, 4.11.2.2.4.1, 4.11.2.2.5, 4.11.3 (except 1113-23)]
J1752-3	A, C & D	(R) measurement of radiated emissions from integrated circuits - tem/wideband tem (GTEM) cell method; tem cell (150 KHz to 1 GHz), wideband tem cell (150 KHz to 8GHz) [up to 1.2GHz]

TAIWAN

CNS 13306	C	Specification for radio disturbance and immunity measuring apparatus and methods part 1: radio disturbance and immunity measuring apparatus.
CNS 13438	A & D	Limits and methods of measurement of radio interference characteristics of information technology equipment (ITE)
CNS 13439	A & D	Limits and methods of measurement of radio interference characteristics of sound and television broadcast receiver and associated equipment.
CNS 13803	A & D	Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment.

UNITED STATES

47 CFR PART 11	A & D	Emergency alert system (EAS)
47 CFR PART 15	A & D	Radio frequency devices
47 CFR PART 18	A & D	Industrial, scientific and medical equipment
47 CFR PART 22	A & D	Public mobile services
47 CFR PART 24	A & D	Personal communications services
47 CFR PART 25	A & D	Satellite communications
47 CFR PART 27	A & D	Miscellaneous wireless communication services
47 CFR PART 73	A & D	Radio broadcast services

STANDARD**CAPABLE
SITE(S)****DESCRIPTION OF STANDARD**

47 CFR PART 74	A & D	Experimental radio, auxiliary, and special broadcast and other program distributional services
47 CFR PART 80	A & D	Stations in the maritime services
47 CFR PART 87	A & D	Aviation services
47 CFR PART 90	A & D	Private land mobile radio services
47 CFR PART 95	A & D	Personal radio services
47 CFR PART 97	A & D	Amateur radio services
47 CFR PART 101	A & D	Fixed microwave services
ANSI RESNA WC VOL.2	A, C & D	Electrically powered wheelchairs, scooters and their chargers - requirements and test methods [Section 21 only]
DO 160	A & D	Environmental conditions and test procedures of airborne equipment. [Sections: 15-22 & 25]
MIL-STD- 461/462	A & D	Electromagnetic emission and susceptibility requirements for the control of electromagnetic interference: [Emissions tests sections: CE01-07, CE101-103 & CE106 D & E, RE01-03, RE101-103]
MIL-STD- 461/462	C	Electromagnetic emission and susceptibility requirements for the control of electromagnetic interference. [Susceptibility tests CS01-12, CS101, CS103, CS104, CS105, CS109, CS114, CS115, CS116 (D & E), RS01-03, RS06, RS101, RS103]

Test Method(s)**United States**

Transmitter & EMC Compliance Testing,
Rule Parts 11, 15 and 18

(TCB Scope A1, A2, A3, A4)

ANSI C63.4 (2003), FCC-MP5, ANSI C63.17 (1998) and
specific FCC Rule Part(s).

(TCB Scope B1, B2, B3, B4)

Transmitter & EMC Compliance Testing,
Other than Parts 11, 15 and 18.

TIA/EIA-603-C and specific FCC Rule Part(s).

Industry Canada

Transmitter & EMC Compliance Testing

RSS-212, Test Facilities and test methods for radio
equipment

Limitations for listed standards are indicated by square brackets.

Scope excludes protocol sections of applicable standards.