

# EMC Standards

*The following list details some of the major electromagnetic compatibility (EMC) standards in place worldwide.*

## EMC Directive Standards

*Harmonized standards for the implementation of the Council Directive 89/336/EEC (2000/C 359/02).*

### GENELEC

**EN 50065-1:2001**—Signaling on low-voltage electrical installations in the frequency range 3 to 148.5 kHz—Part 1: General requirements, frequency bands, and electromagnetic disturbances; Amendment A1:1992 to EN 50065-1:1991; Amendment A2:1995 to EN 50065-1:1991; Amendment A3:1996 to EN 50065-1:1991.

**EN 50081-1:1992**—Electromagnetic compatibility—Generic emission standard—Part 1: Residential, commercial, and light industry.

**EN 50081-2:1994**—Electromagnetic compatibility—Generic emission standard—Part 2: Industrial environment.

**EN 50082-1:1998**—Electromagnetic compatibility—Generic immunity standard—Part 1: Residential, commercial, and light industry.

**EN 50082-2:1995**—Electromagnetic compatibility—Generic immunity standard—Part 2: Industrial environment.

**EN 50083-2:2001**—Cabled networks for television signals, sound signals, and interactive services—Part 2: Electromagnetic compatibility for equipment; Amendment A1:1997 to EN 50083-2:1995.

**EN 50090-2-2:1997**—Home and building electronic systems (HBES)—Part 2-2: System overview—General technical requirements.

**EN 50091-2:1996**—Uninterruptible power systems (UPS)—Part 2: EMC requirements.

**EN 50130-4:1996**—Alarm systems—Part 4: Electromagnetic compatibility—Product family standard: Immunity requirements for components of fire, intruder, and social alarm systems; Amendment A1:1998 to EN 50130-4:1995.

**EN 50148:1996**—Electronic taximeters.

**EN 50199:1998**—Electromagnetic compatibility (EMC)—Product standard for arc welding equipment.

**EN 50227:1999**—Control circuit devices and switching elements, proximity sensors, dc interface for proximity sensors and switching amplifiers (NAMUR).

**EN 50263:2000**—Electromagnetic compatibility (EMC)—Product standard for measuring relays

and protection equipment.

**EN 50270:1999**—Electromagnetic compatibility—Electrical apparatus for the detection and measurement of combustible gases, toxic gases, or oxygen.

**EN 55011:2000**—Industrial, scientific, and medical (ISM) radio-frequency equipment—Radio disturbance characteristics—Limits and methods of measurement; Amendment A1:1999 to EN 55011:1998.

**EN 55013:2001**—Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.

**EN 55014-1:2001**—Electromagnetic compatibility—Requirements for household appliances, electric tools, and similar apparatus—Part 1: Emission—Product family standard.

**EN 55014-2:1997**—Electromagnetic compatibility—Requirements for household appliances, electric tools, and similar apparatus—Part 2: Immunity—Product family standard.

**EN 55015:2001**—Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.

**EN 55020:2002**—Electromagnetic immunity of broadcast receivers and associated equipment.

**EN 55022:1998**—Information technology equipment—Radio disturbance characteristics—Limits and methods of measurement; Amendment A1:2000 to EN 55022:1998.

**EN 55024:1998**—Information technology equipment—Immunity characteristics—Limits and methods of measurement; Amendment A1:2001 to EN 55024:1998.

**EN 55103-1:1997**—Electromagnetic compatibility—Product family standard for audio, video, audiovisual, and entertainment lighting control apparatus for professional use—Part 1: Emission.

**EN 55103-2:1997**—Electromagnetic compatibility—Product family standard for audio, video, audiovisual, and entertainment lighting control apparatus for professional use—Part 2: Immunity.

**EN 55104:1995**—Electromagnetic compatibility—Immunity requirements for household appliances, tools, and similar apparatus—Product family standard.

**EN 60204-31:1998**—Safety of machinery—Electrical equipment of machines—Part 31: Particular safety and EMC requirements for sewing ma-

chines, units, and systems.

**EN 60439-1:1999**—Low-voltage switch gear and control gear assemblies—Part 1: Type-tested and partially type-tested assemblies.

**EN 60521:1995**—Class 0.5, 1, and 2 alternating-current watt-hour meters.

**EN 60555-2:1987**—Disturbances in supply systems caused by household appliances and similar electrical equipment—Part 2: Harmonics.

**EN 60555-3:1987**—Disturbances in supply systems caused by household appliances and similar electrical equipment—Part 3: Voltage fluctuations; Amendment A1:1991 to EN 60555-3:1987.

**EN 60669-2-1:2000**—Switches for household and similar fixed electrical installations—Part 2: Particular requirements—Section 1: Electronic switches; Amendment A11:1997 to EN 60669-2-1:1996.

**EN 60669-2-2:1998**—Switches for household and similar fixed electrical installations—Part 2: Particular requirements—Section 2: Electromagnetic remote-control switches (RCS).

**EN 60669-2-3:1999**—Switches for household and similar fixed electrical installations—Part 2-3: Particular requirements—Time-delay switches (TDS).

**EN 60687:1993**—Alternating current watt-hour meters for active energy (classes 0.2 S and 0.5 S).

**EN 60730-1:2001**—Automatic electrical controls for household and similar use—Part 1: General requirements; Amendment A11:1996 to EN 60730-1:1995; Amendment A17:2000 to EN 60730-1:1995.

**EN 60730-2-11:1994**—Automatic electrical controls for household and similar use—Part 2-11: Particular requirements for energy regulators; Amendment A1:1997 to EN 60730-2-11:1993.

**EN 60730-2-13:1998**—Automatic electrical controls for household and similar use—Part 2-13: Particular requirements for humidity sensing controls.

**EN 60730-2-14:1998**—Automatic electrical controls for household and similar use—Part 2-14: Particular requirements for electric actuators.

**EN 60730-2-18:1999**—Automatic electrical controls for household and similar use—Part 2-18: Particular requirements for automatic electrical water and air-flow sensing controls, including

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mechanical requirements.

**EN 60870-2-1:1996**—Telecontrol equipment and systems—Part 2: Operating conditions—Section 1: Power supply and electromagnetic compatibility.

**EN 60945:2002**—Maritime navigation and radio-communication equipment and systems—General requirements—Methods of testing and required test results.

**EN 60947-1:1999**—Low-voltage switch gear and control gear—Part 1: General rules.

**EN 60947-2:1996**—Low-voltage switch gear and control gear—Part 2: Circuit breakers; Amendment A1:1997 to EN 60947-2:1996.

**EN 60947-3:1999**—Low-voltage switch gear and control gear—Part 3: Switches, disconnectors, switch-disconnectors, and fuse-combination units.

**EN 60947-4-1:2001**—Low-voltage switch gear and control gear—Part 4-1: Contactors and motor starters—Electromechanical contactors and motor starters; Amendment A2:1997 to EN 60947-4-1:1992.

**EN 60947-4-2:2000**—Low-voltage switch gear and control gear—Part 4-2: Contactors and motor starters—Ac semiconductor motor controllers and starters.

**EN 60947-4-3:2000**—Low-voltage switch gear and control gear—Part 4-3: Contactors and motor starters—Ac semiconductor controllers and contactors for nonmotor loads.

**EN 60947-5-1:1998**—Low-voltage switch gear and control gear—Part 5-1: Control circuit devices and switching elements—Electromechanical control circuit devices; Amendment A12 to EN 60947-5-1:1997.

**EN 60947-5-2:1999**—Low-voltage switch gear and control gear—Part 5-2: Control circuit devices and switching elements—Proximity switches.

**EN 60947-5-3:1999**—Low-voltage switch gear and control gear—Part 5-3: Control circuit devices and switching elements—Requirements for proximity devices with defined behavior under fault conditions (PDF).

**EN 60947-5-6:2001**—Low-voltage switch gear and control gear—Part 5-6: Control circuit devices and switching elements—Dc interface for proximity sensors and switching amplifiers (NAMUR).

**EN 60947-6-1:1992**—Low-voltage switch gear and control gear—Part 6-1: Multiple-function equipment—Automatic transfer switching equipment; Amendment A2:1997 to EN 60947-6-1:1991.

**EN 60947-6-2:1993**—Low-voltage switch gear and control gear—Part 6-2: Multiple-function equipment—Control and protective switching devices (or equipment) (CPS); Amendment A1:1997 to EN 60947-6-2:1993.

**EN 61000-3-2:2001**—Electromagnetic compatibility (EMC)—Part 3-2: Limits—Limits for harmonic current emissions (equipment input current up to and including 16 A per phase).

**EN 61000-3-3:1995**—Electromagnetic compatibility (EMC)—Part 3-3: Limits—Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current less than or equal to 16 A per phase and not subject to conditional connection; Amendment A1:2001 to EN 61000-3-3:1995.

**EN 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 current less than or equal to 75 A and subject to conditional connection.

**EN 61000-6-1:2001**—Electromagnetic compatibility (EMC)—Part 6-1: Generic standards—

Immunity for residential, commercial, and light-industrial environments.

**EN 61000-6-2:2001**—Electromagnetic compatibility (EMC)—Part 6-2: Generic standards—Immunity for industrial environments.

**EN 61000-6-3:2001**—Electromagnetic compatibility (EMC)—Part 6-3: Generic standards—Emission standard for residential, commercial, and light-industrial environments.

**EN 61000-6-4:2001**—Electromagnetic compatibility (EMC)—Part 6-4: Generic standards—Emission standard for industrial environments.

**EN 61008-1:1995**—Electrical accessories—Residual current-operated circuit breakers (RCCBs) without integral overcurrent protection for household and similar uses—Part 1: General rules.

**EN 61009-1:1995**—Electrical accessories—Residual current-operated circuit breakers (RCCBs) with integral overcurrent protection for household and similar uses—Part 1: General rules.

**EN 61036:1997**—Alternating current static watt-hour meters for active energy (classes 1 and 2); Amendment A1:2000 to EN 61036:1996.

**EN 61037:1992**—Electricity metering—Tariff and load control—Particular requirements for electronic ripple control receivers; Amendment A1:1996 to EN 61037:1992; Amendment A2:1998 to EN 61037:1992.

**EN 61038:1993**—Electricity metering—Tariff and load control—Particular requirements for time switches; Amendment A2:1998 to EN 61038:1992.

**EN 61131-2:2000**—Programmable controllers—Part 2: Equipment requirements and tests.

**EN 61204-3:2001**—Low-voltage power supplies, dc output—Part 3: Electromagnetic compatibility (EMC).

**EN 61268:1996**—Alternating current static var-hour meters for reactive energy (classes 2 and 3).

**EN 61326:1998**—Electrical equipment for measurement, control, and laboratory use—EMC requirements.

**EN 61543:1996**—Residual current-operated protective devices (RCDs) for household and similar use—Electromagnetic compatibility.

**EN 61547:1996**—Equipment for general lighting purposes—EMC immunity requirements.

**EN 61800-3:1997**—Adjustable speed electrical power drive systems—Part 3: EMC product standard including specific test methods.

**EN 61812-1:1996**—Specified time relays for industrial use—Part 1: Requirements and tests.

### CEN

**EN 12015:1998**—Electromagnetic compatibility—Product family standard for lifts, escalators, and passenger conveyors—Emission.

**EN 12016:1998**—Electromagnetic compatibility—Product family standard for lifts, escalators, and passenger conveyors—Immunity.

**EN ISO 14982:1998**—Agricultural and forestry machines—Electromagnetic compatibility—Test methods and acceptance criteria (ISO 14982:1998).

### ETSI

**EN 300 065-2 V1.1.1 (05-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (Navtex); Part 2: Harmonized EN covering essential requirements of Article 3.2 of the R&TTE Directive.

**EN 300 065-3 V1.1.1 (05-2001)**—Electromagnetic compatibility and radio spectrum matters

(ERM); Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (Navtex); Part 3: Harmonized EN covering essential requirements of Article 3.3 (e) of the R&TTE Directive.

**EN 300 086-2 V1.3.1 (03-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service; Radio equipment with an internal or external RF connector intended primarily for analog speech; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 113-2 V1.2.1 (04-2002)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and speech) and having an antenna connector; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 135-2 V1.1.1 (08-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Angle-modulated citizens band radio equipment (CEPT PR 27 Radio Equipment); Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 152-2 V1.1.1 (08-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Maritime emergency position indicating radio beacons (EPIRBs) intended for use on the frequency 121.5 MHz or the frequencies 121.5 MHz and 243 MHz for homing purposes only; Part 2: Harmonized R&TTE Directive.

**EN 300 152-3 V1.1.1 (05-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Maritime emergency position indicating radio beacons (EPIRBs) intended for use on the frequency 121.5 MHz or the frequencies 121.5 MHz and 243 MHz for homing purposes only; Part 3: Harmonized EN under Article 3.3 (e) of the R&TTE Directive.

**EN 300 162-2 V1.1.2 (12-2000)**—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 under Article 3.3 of the R&TTE Directive.

**EN 300 162-3 V1.1.1 (05-2001)**—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 under Article 3.3 (e) of the R&TTE Directive.

**EN 300 219-2 V1.1.1 (03-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service; Radio equipment with an internal or external RF connector intended primarily for analog speech; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 220-1 V1.2.1 (11-1997)**—Electromagnetic compatibility and radio spectrum matters (ERM); Short-range devices; Technical characteristics and test methods for radio equipment to be used in the 25 to 1000 MHz frequency range with power levels ranging up to 500 mW; Part 1: Parameters intended for regulatory purposes.

**EN 300 220-3 V1.1.1 (09-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Short-range devices (SRD); Radio equipment to be used in the 25 MHz to 1000 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.

**EN 300 224-2 V1.1.1 (01-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); On-site paging service; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.

**EN 300 279 V1.2.1 (02-1999)**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for private land mobile radio (PMR) and ancillary equipment (speech and/or non-speech).

**EN 300 296-2 V1.1.1 (03-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service; Radio equipment using integral antennas intended primarily for analog speech; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 328-2 V1.2.1 (12-2001)**—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.

**EN 300 330-2 V1.1.1 (06-2001)**—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.

**EN 300 339 V1.1.1 (06-1998)**—Electromagnetic compatibility and radio spectrum matters (ERM); General electromagnetic compatibility (EMC) for radio communications equipment.

**EN 300 341-2 V1.1.1 (12-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service (RP 02); Radio equipment using an integral antenna transmitting signals to initiate a specific response in the receiver; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.

**EN 300 385 V1.2.1 (10-1999)**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for fixed radio links and ancillary equipment.

**EN 300 385/A1:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for fixed radio links and ancillary equipment with data rates at around 2 Mbit/sec and above.

**EN 300 386 V1.3.2 (05-2003)**—Electromagnetic compatibility and radio spectrum matters (ERM); Telecommunication network equipment; Electromagnetic compatibility (EMC) requirements.

**EN 300 386-2:1997**—Electromagnetic compatibility and radio spectrum matters (ERM); Telecommunication network equipment; Electromagnetic compatibility (EMC) requirements; Part 2: Product family standard.

**EN 300 390-2 V1.1.1 (09-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and speech) and using an integral antenna; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 422-2 V1.1.1 (08-2000)**—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.

**EN 300 433-2 V1.1.1 (12-2000)**—Electromagnetic

compatibility and radio spectrum matters (ERM); Land mobile service; Double sideband (DSB) and/or single sideband (SSB) amplitude modulated citizens band radio equipment; Part 2: Harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive.

**EN 300 440-2 V1.1.1 (09-2001)**—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.

**EN 300 454-2 V1.1.1 (08-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); Wide band audio links; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.

**EN 300 827:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for terrestrial trunked radio (TETRA) and ancillary equipment.

**EN 300 828:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for radiotelephone transmitters and receivers for the maritime mobile service operating in the VHF bands.

**EN 300 829:1998**—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).

**EN 300 831:1999**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for mobile earth stations (MES) used within satellite personal communications networks (S-PCN) operating in the 1.5/1.6/2.4 GHz and 2 GHz frequency bands.

**EN 301 011:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for narrow-band direct-printing (NBDP) Navtex receivers operating in the maritime mobile service.

**EN 301 025-2 V1.1.1 (08-2000)**—Electromagnetic compatibility and radio spectrum matters (ERM); VHF radiotelephone equipment for general communications and associated equipment for Class 'D' digital selective calling (DSC); Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.

**EN 301 025-3 V1.1.1 (05-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); VHF radiotelephone equipment for general communications and associated equipment for Class 'D' digital selective calling (DSC); Part 3: Harmonized EN under Article 3.3 (e) of the R&TTE Directive.

**EN 301 090:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for maritime radiotelephone watch receivers operating on 2182 kHz.

**EN 301 357-2 V1.2.1 (06-2001)**—Electromagnetic compatibility and radio spectrum matters (ERM); Cordless audio devices in the range 25 MHz to 2000 MHz; Consumer radio microphones and in-ear monitoring systems operating in the CEPT harmonized band 863 MHz to 865 MHz; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.

**ETS 300 197/A2:1997**—Transmission and multiplexing (TM); Parameters for radio relay systems for the transmission of digital signals and analog video signals operating at 38 GHz.

**ETS 300 198/A1:1997**—Transmission and multiplexing (TM); Parameters for radio relay systems for the transmission of digital signals and analog video signals operating at 23 GHz.

**ETS 300 224 (03-1998)**—Electromagnetic compatibility and radio spectrum matters (ERM); On-site paging service; Technical and functional characteristics for on-site paging systems, including test methods.

**ETS 300 279/A1:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for private land mobile radio (PMR) and ancillary equipment (speech and/or nonspeech).

**ETS 300 296/A1:1997**—Radio equipment and systems (RES); Land mobile service; Technical characteristics and test conditions for radio equipment using integral antennas intended primarily for analog speech.

**ETS 300 342-1:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1800 MHz); Part 1: Mobile and portable radio and ancillary equipment.

**ETS 300 384/A1:1997**—Radio broadcasting systems; Very-high frequency (VHF), frequency modulated, sound broadcasting transmitters.

**ETS 300 340/A1:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) for European radio message system (ERMES) paging receivers.

**ETS 300 329:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) for digital enhanced cordless telecommunications (DECT) equipment.

**ETS 300 390/A1:1997**—Radio equipment and systems (RES); Land mobile service; Technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and using an integral antenna.

**ETS 300 433/A2:1997**—Radio equipment and systems (RES); Double-sideband (DSB) and/or single-sideband (SSB) amplitude modulated citizens band (CB) radio equipment; Technical characteristics and methods of measurement.

**ETS 300 445/A1:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for wireless microphones and similar radio-frequency (RF) audio link equipment.

**ETS 300 446:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for second-generation cordless telephone (CT2) apparatus operating in the frequency band 864.1 to 868.1 MHz, including public access services.

**ETS 300 447:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for VHF FM broadcasting transmitters. ETS 300 454/A1:1997—Radio equipment and systems (RES); Wideband audio links; Technical characteristics and test methods.

**ETS 300 460:1997**—Satellite earth stations and systems (SES); Maritime mobile earth stations (MMES) operating in the 1.5/1.6 GHz bands providing low-bit-rate data communications (LBRDCs) for the global maritime distress and safety system (GMDSS); Technical characteristics and methods of measurement.

**ETS 300 487/A1:1997**—Satellite earth stations and systems (SES); Receive-only mobile earth stations (ROMES) operating in the 1.5 GHz band providing data communications; Radio-frequency (RF) specifications.

**ETS 300 673 V1.2.1 (03-2000)**—Radio equipment and systems (RES); Electromagnetic compatibil-

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ity (EMC) standard for 4/6 GHz and 11/12/14 GHz very small aperture terminal (VSAT) equipment and 11/12/13/14 GHz satellite news gathering (SNG) transportable earth station (TES) equipment.

**ETS 300 680:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for citizens band (CB) radio and ancillary equipment (speech and/or non-speech); Part 1: Angle modulated; Part 2: Double sideband (DSB) and/or single sideband (SSB).

**ETS 300 682:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for on-site paging equipment.

**ETS 300 683:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for short-range devices (SRD) operating on frequencies between 9 kHz and 25 GHz.

**ETS 300 684:1997**—Radio equipment and systems (RES); Electromagnetic compatibility (EMC) standard for commercially available amateur radio equipment.

**ETS 300 717:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for analog cellular radio communications equipment; Mobile and portable equipment.

**ETS 300 719-1:1997**—Radio equipment and systems (RES); Private wide-area paging service; Part 1: Technical characteristics for private wide-area paging system.

**ETS 300 741:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for wide-area paging equipment.

**ETS 300 826:1997**—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.

**ETS 300 830:1998**—Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) for receive-only mobile earth stations (ROMES) operating in the 1.5 GHz band providing data communications.

## Australian Standards

**AS/NZS 1044:1995**—Limits and methods of measurement of radio disturbance characteristics of electrical motor-operated and thermal appliances for household and similar purposes, electric tools, and similar electric apparatus; Amendment 2:2000 to AS/NZS 1044:1995.

**AS/NZS 1053:1999**—Limits and methods of measurement of radio interference characteristics of sound and television receivers and associated equipment.

**AS/NZS 2064:1997**—Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific, and medical (ISM) radio-frequency equipment; Amendment 1:1997 to AS/NZS 2064:1997.

**AS/NZS 2557:1999**—Limits and methods of measurement of radio interference characteristics of vehicles, motor boats, and spark-ignited engine-driven vehicles.

**AS/NZS 3548:1995**—Limits and methods of measurement of radio disturbance characteristics of information technology equipment; Amendment 1:1997 to AS/NZS 3548:1995; Amendment 2:1997 to AS/NZS 3548:1995.

**AS/NZS 3652:1998**—Electromagnetic compatibility—Arc welding equipment.

**AS/NZS 4051:1998**—Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.

**AS/NZS 4251.1:1999**—Electromagnetic compatibility (EMC)—Generic emission standard—Residential, commercial, and light industry.

**AS/NZS 4251.2: 1999**—Electromagnetic compatibility (EMC)—Generic emission standard—Industrial environments.

**AS 62040.2**—Uninterruptible power systems—Electromagnetic compatibility (EMC) requirements.

## Canadian Standards

**CAN/CSA C108.1.1:1977 (R1999)**—Electromagnetic interference measuring instrument—CISPR type.

**CAN/CSA C108.1.2:M1981 (R1999)**—Electromagnetic interference measuring instrument—ANSI type.

**CAN/CSA C108.1.5-M85 (R1999)**—Line impedance stabilization network (LISN).

**CAN/CSA C108.3.1-M84 (R2000)**—Limits and measurement methods of electromagnetic noise from ac power systems, 0.15–30 MHz.

**CAN/CSA-C108.4-M92 (R2003)**—Limits and methods of measurement of radio interference characteristics of vehicles, motorboats, and spark-ignited engine-driven devices.

**CAN/CSA-C108.6-M91 (R2003)**—Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific, and medical (ISM) radio-frequency equipment (adopted CISPR 11:1990).

**CAN/CSA C108.8-M83 (R2000)**—Limits and methods of measurement of electromagnetic emissions from data processing equipment and electronic office machines.

**CAN/CSA-C108.9-M91 (R1999)**—Sound and television broadcasting receivers and associated equipment—limits and methods of measurement of immunity characteristics.

**CAN/CSA-CEI/IEC 1000-1-1-97 (R2001)**—Electromagnetic compatibility (EMC)—Part 1: General—Section 1: Application and interpretation of fundamental definitions and terms (adopted CEI/IEC 1000-1-1:1992).

**CAN/CSA-CEI/IEC 1000-2-1-97 (R2001)**—Electromagnetic compatibility (EMC)—Part 2: Environment—Section 1: Description of the environment—Electromagnetic environment for low frequency conducted disturbances and signalling in public power supply systems (adopted CEI/IEC 1000-2-1:1990).

**CAN/CSA CISPR 22-02**—Limits and methods of measurement of radio disturbance characteristics of information technology equipment. Adopted CISPR 22:1997, third edition, 1997-11 with Canadian deviations.

**CAN/CSA E1000-2-2:1997 (R2001)**—Electromagnetic compatibility (EMC)—Part 2: Environment—Section 2: Compatibility levels for low frequency conducted disturbances and signalling in public low-voltage power supply systems (adopted CEI/IEC 1000-2-2:1990).

**CAN/CSA-CEI/IEC 61000-4-2-01**—Electromagnetic compatibility (EMC)—Part 4-2: Testing and measurement techniques—Electrostatic discharge immunity test (Adopted CEI/IEC 61000-4-2:1995 + A1:1998, edition 1.1, 1999-05).

**CAN/CSA-CEI/IEC 61000-4-3-01**—Electromagnetic compatibility (EMC)—Part 4-3: Testing and measurement techniques—Radiated, radio-frequency, electromagnetic field immunity test (Adopted CEI/IEC 61000-4-3:1995 + A1:1998, Edition 1.1, 1998-11).

**CAN/CSA-CEI/IEC 61000-4-4-01**—Electromagnetic compatibility (EMC)—Part 4: Testing and measurement techniques—Section 4: Electrical fast transient/burst immunity test—Basic EMC publication (Adopted CEI/IEC 1000-4-4:1995,

first edition, 1995-01, including Amendment 1:2000).

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