

Basic EMC Publications and Standards			© 2019 by Academy of EMC	
General guidance	Emission	Immunity	Type	Remark
General guide to EMC publications	IEC Guide 107		Basic Publication	
General terminology	Emission	Immunity	Type	Remark
General terminology, international electrotechnical vocabulary	IEC 60050-161		Basic Publication	
General considerations	Emission	Immunity	Type	Remark
Application and interpretation of fundamental definitions and terms	IEC 61000-1-1		Basic Publication	
Methodology for the achievement of <b>functional safety</b> of electrical and electronic systems including equipment with regard to electromagnetic phenomena	IEC 61000-1-2		Basic Publication	
The effects of high-altitude EMP ( <b>HEMP</b> ) on <b>civil equipment</b> and systems	IEC TR 61000-1-3		Basic Publication	Technical Report (non-normative)
Historical rationale for the limitation of power-frequency conducted harmonic current emissions from equipment, in the frequency range up to 2 kHz	IEC TR 61000-1-4		Basic Publication	Technical Report (non-normative)
High power electromagnetic (HPEM) effects on civil systems		IEC TR 61000-1-5	Basic Publication	Technical Report (non-normative)
Environment classification (basic publications)	Emission	Immunity	Type	Remark
Classification of <b>electromagnetic environments</b> . Basic EMC publication.		IEC 61000-2-5	Basic Publication	Technical Report (non-normative)
Environment LF conducted emission (basic publications)	Emission	Immunity	Type	Remark
Description of the environment - Electromagnetic environment for low-frequency conducted disturbances and signalling in public power supply systems	IEC TR 61000-2-1		Basic Publication	Technical Report (non-normative)
Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	IEC 61000-2-2		Basic Publication	
Compatibility levels in industrial plants for low-frequency conducted disturbances	IEC 61000-2-4		Basic Publication	
Assessment of the emission levels in the power supply of industrial plants as regards low-frequency conducted disturbances	IEC TR 61000-2-6		Basic Publication	Technical Report (non-normative)
Voltage dips and short interruptions on public electric power supply systems with statistical measurement results	IEC TR 61000-2-8		Basic Publication	Technical Report (non-normative)
Compatibility levels for low-frequency conducted disturbances and signalling in public medium-voltage power supply systems	IEC 61000-2-12		Basic Publication	
Overvoltages on public electricity distribution networks	IEC TR 61000-2-14		Basic Publication	Technical Report (non-normative)
Consideration of reference impedances and public supply network impedances for use in determining disturbance characteristics of electrical equipment having a rated current = < 75 A per phase	IEC TR 60725		Basic Publication	Technical Report (non-normative)
Environment LF radiated emission (basic publications)	Emission	Immunity	Type	Remark
Low frequency magnetic fields in various environments	IEC TR 61000-2-7		Basic Publication	Technical Report (non-normative)
HF conducted/radiated disturbances (basic publications)	Emission	Immunity	Type	Remark
Description of the environment - Radiated and non-network-frequency-related conducted phenomena	IEC TR 61000-2-3		Basic Publication	Technical Report (non-normative)
HEMP (basic publications)	Emission	Immunity	Type	Remark
Description of HEMP environment - Radiated disturbance. Basic EMC publication		IEC 61000-2-9	Basic Publication	

Description of HEMP environment - Conducted disturbance		IEC 61000-2-10	Basic Publication	
Classification of HEMP environments		IEC 61000-2-11	Basic Publication	
High-power electromagnetic (HPEM) environments - Radiated and conducted		IEC 61000-2-13	Basic Publication	

Installation and mitigation guidelines (basic publications)	Emission	Immunity	Type	Remark
Installation and mitigation guidelines - General considerations	IEC TR 61000-5-1		Basic Publication	Technical Report (non-normative)
Installation and mitigation guidelines - <b>Earthing and cabling</b>	IEC TR 61000-5-2		Basic Publication	Technical Specification (non-normative)
Installation and mitigation guidelines - Mitigation of external EM influences	IEC TR 61000-5-6		Basic Publication	Technical Specification (non-normative)
Installation and mitigation guidelines - Degrees of protection provided by enclosures against electromagnetic disturbances (EM code)	IEC 61000-5-7		Basic Publication	
Installation and mitigation guidelines - HEMP protection concepts		IEC TR 61000-5-3	Basic Publication	
Installation and mitigation guidelines - Section 4: Immunity to HEMP - Specifications for protective devices against HEMP radiated disturbance. Basic EMC Publication		IEC TS 61000-5-4	Basic Publication	Technical Specification (non-normative)
Installation and mitigation guidelines - Section 5: Specification of protective devices for HEMP conducted disturbance. Basic EMC Publication		IEC 61000-5-5	Basic Publication	

LF conducted emission	Emission	Immunity	Type	Remark
Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	IEC 61000-4-7		Basic Publication	
Testing and measurement techniques - Flickermeter - Functional and design specifications	IEC 61000-4-15		Basic Publication	

HF conducted and radiated emission	Emission	Immunity	Type	Remark
<b>CISPR 16-1: Specification for radio disturbance and immunity measuring apparatus and methods - Radio disturbance and immunity measuring apparatus</b>				
Measuring apparatus	CISPR 16-1-1		Basic Publication	
Coupling devices for conducted disturbance measurements	CISPR 16-1-2		Basic Publication	
Ancillary equipment - Disturbance power	CISPR 16-1-3		Basic Publication	
Antennas and test sites for radiated disturbance measurements	CISPR 16-1-4		Basic Publication	
Antenna calibration sites and reference test sites for 5 MHz to 18 GHz	CISPR 16-1-5		Basic Publication	
EMC antenna calibration	CISPR 16-1-6		Basic Publication	

<b>CISPR 16-2: Specification for radio disturbance and immunity measuring apparatus and methods - Methods of measurement of disturbances and immunity</b>				
Conducted disturbance measurements	CISPR 16-2-1		Basic Publication	
Measurement of disturbance power	CISPR 16-2-2		Basic Publication	
Radiated disturbance measurements	CISPR 16-2-3		Basic Publication	
Immunity measurements	CISPR 16-2-4		Basic Publication	

In situ measurements for disturbing emissions produced by physically large equipment	CISPR TR 16-2-5		Basic Publication	Technical Report (non-normative)
CISPR technical reports	CISPR TR 16-3		Basic Publication	Technical Report (non-normative)
<b>CISPR 16-4: Specification for radio disturbance and immunity measuring apparatus and methods - Uncertainties, statistics and limit modelling</b>				
Uncertainties in standardized EMC tests	CISPR TR 16-4-1		Basic Publication	Technical Report (non-normative)
Measurement instrument uncertainty	CISPR 16-4-2		Basic Publication	
Statistical considerations in the determination of EMC compliance of mass-produced products	CISPR TR 16-4-3		Basic Publication	Technical Report (non-normative)
Statistics of complaints and a model for the calculation of limits for the protection of radio services	CISPR TR 16-4-4		Basic Publication	Technical Report (non-normative)
Conditions for the use of alternative test methods	CISPR TR 16-4-5		Basic Publication	Technical Report (non-normative)
<b>General immunity testing techniques</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Testing and measurement techniques - Overview of immunity tests (IEC 61000-4 series)		IEC TR 61000-4-1	Basic Publication	Technical Report (non-normative)
<b>LF conducted immunity (testing and measurement technique)</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Voltage dips, short interruptions and voltage variations immunity tests		IEC 61000-4-11	Basic Publication	
Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests		IEC 61000-4-13	Basic Publication	
Voltage fluctuation immunity test for equipment with input current not exceeding 16 A per phase		IEC 61000-4-14	Basic Publication	
Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz		IEC 61000-4-16	Basic Publication	
Ripple on d.c. input power port immunity test		IEC 61000-4-17	Basic Publication	
Unbalance, immunity test for equipment with input current not exceeding 16 A per phase		IEC 61000-4-27	Basic Publication	
Variation of power frequency, immunity test for equipment with input current not exceeding 16 A per phase		IEC 61000-4-28	Basic Publication	
Voltage dips, short interruptions and voltage variations on d.c. input power port immunity test		IEC 61000-4-29	Basic Publication	
Power quality measurement methods		IEC 61000-4-30	Basic Publication	
Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase		IEC 61000-4-34	Basic Publication	
Test, verification and calibration protocol for fluctuation and flicker compliance test systems		IEC TR 61000-4-38	Basic Publication	Technical Report (non-normative)
<b>LF radiated immunity (testing and measurement techniques)</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Power frequency <b>magnetic field</b> immunity test		IEC 61000-4-8	Basic Publication	
<b>HF conducted immunity (testing and measurement technique)</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Electrical fast transient / <b>burst</b> immunity test		IEC 61000-4-4	Basic Publication	
<b>Surge</b> immunity test		IEC 61000-4-5	Basic Publication	

Immunity to conducted disturbances, induced by radio-frequency fields		IEC 61000-4-6	Basic Publication	
Ring wave immunity test		IEC 61000-4-12	Basic Publication	
Damped oscillatory wave immunity test		IEC 61000-4-18	Basic Publication	
Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2kHz to 150 kHz at AC power ports		IEC 61000-4-19	Basic Publication	
<b>HF radiated immunity (testing and measurement techniques)</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
<b>Radiated, radio-frequency, electromagnetic field immunity test</b>		IEC 61000-4-3	Basic Publication	
Pulse magnetic field immunity test		IEC 61000-4-9	Basic Publication	
Damped oscillatory magnetic field immunity test		IEC 61000-4-10	Basic Publication	
Emission and immunity testing in <b>transverse electromagnetic (TEM)</b> waveguides	IEC 61000-4-20		Basic Publication	
Reverberation chamber test methods	IEC 61000-4-21		Basic Publication	
Radiated emissions and immunity measurements in fully anechoic rooms (FARs)	IEC 61000-4-22		Basic Publication	
<b>Radiated fields in close proximity - Immunity test</b>		IEC 61000-4-39	Basic Publication	
<b>Electrostatic discharges (ESD)</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Electrostatic discharge ( <b>ESD</b> ) immunity test		IEC 61000-4-2	Basic Publication	
<b>HEMP</b>	<b>Emission</b>	<b>Immunity</b>	<b>Type</b>	<b>Remark</b>
Test methods for protective devices for HEMP and other radiated disturbances		IEC 61000-4-23	Basic Publication	
Test methods for protective devices for HEMP conducted disturbance		IEC 61000-4-24	Basic Publication	
HEMP immunity test methods for equipment and systems		IEC 61000-4-25	Basic Publication	
High-altitude electromagnetic pulse (HEMP) simulator compendium		IEC TR 61000-4-32	Basic Publication	Technical Report (non-normative)
Measurement methods for high-power transient parameters		IEC 61000-4-33	Basic Publication	
High Power Electromagnetic HEMP transient simulator compendium		IEC TR 61000-4-35	Basic Publication	Technical Report (non-normative)
IEMI immunity test methods for equipment and systems		IEC 61000-4-36	Basic Publication	

Generic EMC Standards			© 2022 by Academy of EMC	
	Emission	Immunity	Type	Remark
<b>Residential</b> , commercial, light industrial environment	IEC 61000-6-3	IEC 61000-6-1	Generic Standard	
<b>Industrial</b> environment	IEC 61000-6-4	IEC 61000-6-2	Generic Standard	
<b>Light industrial</b> environment	IEC 61000-6-8		Generic Standard	For equipment: defined as professional equipment, professionally installed and maintained, not intended for residential locations
<b>Immunity for power station</b> and substation environments		IEC 61000-6-5	Generic Standard	
<b>Indoor equipment HEMP</b> immunity		IEC 61000-6-6	Generic Standard	
<b>Safety-related systems</b> (functional safety) in industrial locations		IEC 61000-6-7	Generic Standard	For equipment to comply with IEC 61508

EMC Product (Family) Standards				© 2023 by Academy of EMC
	Emission	Immunity	Type	Remark
<b>Automotive: Vehicles, boats</b> and internal combustion engines	CISPR 12 CISPR 25	-	Product Standard	
<b>Automotive: Road vehicles</b> - Vehicle test methods	-	ISO 11451 ISO 10605	Product Standard	Vehicles.
<b>Automotive: Road vehicles</b> - Component test methods	-	ISO 11452 ISO 7637 ISO 10605	Product Standard	Components.
<b>Avionics:</b> Airborne equipment, aircraft, helicopters	RTCA DO-160 EUROCAE ED-14		Product Standard	RTCA DO-160 and EUROCAE ED-14 are identically worded.
<b>Electricity metering equipment (AC)</b>	-	IEC 62052-11	Product Standard	
<b>Household: Household appliances</b> , electric tools and similar apparatus	CISPR 14-1	CISPR 14-2	Product Standard	
<b>Information technology equipment: ITE</b> , notebooks, telephones	CISPR 32	CISPR 35	Product Standard	CISPR 32 replaced CISPR 22 in 2017.
<b>Lightning: Electrical lighting</b> and similar equipment	CISPR 15	IEC 61547	Product Standard	
<b>Medical equipment:</b> Medical electrical equipment - General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests	IEC 60601-1-2		Product Standard	In EU: Medical Equipment falls under the Medical Directive (93/68/EEC) and not the EMC Directive (2014/30/EU).
<b>Medical laboratory equipment:</b> Electrical equipment for measurement, control and laboratory use - EMC requirements	IEC 61326-1	IEC 61326-1	Product Standard	
<b>Medical IVD equipment:</b> Electrical equipment for measurement, control and laboratory use - EMC requirements	IEC 61326-2-6		Product Standard	
<b>Medical safety equipment:</b> Electrical equipment for measurement, control and laboratory use - Immunity requirements for safety-related systems and equipment	-	IEC 61326-3-1	Product Standard	IEC 61326-3-1 is limited to systems/equipment for industrial applications intended to perform safety functions (IEC 61508 with SIL 1-3).
<b>Power unities:</b> Communication networks and systems for power utility automation	IEC 61850-3		Product Standard	
<b>Relays: Measuring relays</b> and protection equipment	IEC 60255-26	IEC 60255-26	Product Standard	
<b>Residual current operated circuit-breakers</b> with integral overcurrent protection for household and similar uses	IEC 61009-1		Product Standard	Rated voltages not exceeding 440 V AC. with rated frequencies of 50 Hz, 60 Hz or 50/60 Hz.
<b>Ships</b> with a metallic hull: Electrical and electronic installations in ships - Electromagnetic compatibility (EMC)	IEC 60533	IEC 60533	Product Standard	
<b>DC/AC Power Converters:</b> DC to AC power conversion equipment (PCE) for use in photovoltaic power systems - EMC requirements and test methods for power conversion equipment	IEC 62920	IEC 62920	Product Standard	