

IEEE Electromagnetic Compatibility Standards (Active & Archive) Collection: VuSpec

This value-packed VuSpec represents the most complete resource available for professional engineers looking for best practices and techniques covering the compatibility of the electromagnetic effects of systems with both themselves and their intended operating environments. It includes 52 active standards and 67 archive standards, measurement techniques, test procedures, instrumentation, equipment and systems characteristics, interference control techniques and components, educational tutorials, computational analysis, and spectrum management.

This unique package has an exclusive hyperlinked Overview from world-renowned EMC expert, Donald Heirman. You will be guided to the right standard available today and will discover what future standards are being developed and why. Major details involved in developing IEEE EMC Standards from the first one on record in 1950 to the ones that have launched new technologies are presented.

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Contains 52 active and 67 archive IEEE Standards, Guides, Recommended Practices, Interpretations and Errata for Electromagnetic Compatibility listed below:

ACTIVE

- IEEE Std 139-1988 (R2012), IEEE Recommended Practice for the Measurement of Radio Frequency Emission from Industrial, Scientific, and Medical (ISM) Equipment Installed on User's Premises
- IEEE Std 187-2003, IEEE Standard for Measurement Methods of Emissions from FM and Television Broadcast Receivers in the Frequency Range of 9 kHz to 40 GHz
- IEEE 187-2003, Errata to IEEE Standard for Measurement Methods of Emissions from FM and Television Broadcast Receivers in the Frequency Range of 9 kHz to 40 GHz
- IEEE Std 211-1997 (R2003), IEEE Standard Definitions of Terms for Radio Wave Propagation
- IEEE Std 299-2006,(R2012) IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures
- IEEE Std 299.1-2013 - IEEE Standard Method for Measuring the Shielding Effectiveness of Enclosures and Boxes Having all Dimensions between 0.1 m and 2 m
- IEEE Std 377-1980 (R2008), IEEE Recommended Practice for Measurement of Spurious Emission from Land-Mobile Communication Transmitters
- IEEE Std 475-2000,IEEE Standard Measurement Procedure for Field Disturbance Sensors 300 MHz to 40 GHz
- IEEE Std 644-1994 (R2008), IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields From AC Power Lines –
- IEEE Std 1128-1998 (R2012), IEEE Recommended Practice for Radio-Frequency (RF) Absorber Evaluation in the Range of 30 MHz to 5 GHz
- IEEE Std 1140-1994 (R2006), IEEE Standard Procedures for the Measurement of Electric and Magnetic Fields From Video Display Terminals (VDTs) From 5 Hz to 400 kHz
- IEEE Std 1302-2008, IEEE Guide for the Electromagnetic Characterization of Conductive Gaskets in the Frequency Range of DC to 18 GHz
- IEEE Std 1309-2013, IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz
- IEEE Std 1460-1996 (R2008),IEEE Guide for the Measurement of Quasi-Static Magnetic and Electric Fields

- IEEE Std 1528-2013, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement
- IEEE Std 1528a-2005, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques Amendment 1: CAD File for Human Head Model (SAM Phantom) SASB/SCC39-SCC39 - International Committee on Electromagnetic Safety
- IEEE Std 1528TM-2013, Errata to IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- IEEE 1528a-2005, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head From Wireless Communications Devices: Measurement Techniques Amendment 1: CAD File for Human Head Model (SAM Phantom)
- IEEE Std 1560-2013, IEEE Standard for Methods of Measurement of Radio-Frequency Power-Line Interference Filter in the Range of 100 Hz to 10 GHz
- IEEE Std 1597.1-2008, IEEE Standard for Validation of Computational Electromagnetics Computer Modeling and Simulations
- IEEE Std 1597.2-2010, IEEE Recommended Practice for Validation of Computational Electromagnetics Computer Modeling and Simulations
- IEEE Std 1642-2015, IEEE Draft Recommended Practice for Protecting Public Accessible Computer Systems from Intentional EMI
- IEEE Std 1688-2015, IEEE Draft Standard for Requirements for the Control of Electromagnetic Interference Characteristics of Replaceable Electronic Modules
- IEEE Std 1775-2010, IEEE Standard for Power Line Communication Equipment-Electromagnetic Compatibility (EMC) Requirements-Testing and Measurement Methods - IEEE Power & Energy Society/Power System Communications
- IEEE Std C37.90.2-2004, IEEE Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers - IEEE Power & Energy Society/Power System Relaying

C63 Series

- IEEE/ANSI Std C63.2-2016, American National Standard for Electromagnetic Noise and Field Strength Instrumentation, 10 Hz to 40 GHz Specifications
- IEEE/ANSI Std C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.5-2017, American National Standard Electromagnetic Compatibility-Radiated Emission Measurements in Electromagnetic Interference (EMI) Control-Calibration of Antennas (9 kHz to 40 GHz)
- IEEE/ANSI C63.6-1996, American National Standard Guide for the Computation of Errors in Open-Area Test Site Measurements
- IEEE/ANSI Std C63.7-2015, American National Standard Guide for Construction of Open-Area Test Sites for Performing Radiated Emission Measurements
- IEEE/ANSI Std C63.9-2014, American National Standard for RF Immunity of Audio Office Equipment to General Use Transmitting Devices with Transmitter Power Levels up to 8 Watts
- IEEE/ANSI Std C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices
- IEEE/ANSI Std C63.12- 2015, American National Standard Recommended Practice for Electromagnetic Compatibility Limits
- IEEE/ANSI Std C63.13-1991, American National Standard Guide on the Application and Evaluation of EMI Power-Line Filters for Commercial Use
- IEEE/ANSI Std C63.14-2014, American National Standard Dictionary of Electromagnetic Compatibility (EMC) including Electromagnetic Environmental Effects (E3)

- IEEE/ANSI Std C63.15-2010, American National Standard Recommended Practice for the Immunity Measurement of Electrical and Electronic Equipment
- IEEE/ANSI Std C63.16-2016, American National Standard Guide for Electrostatic Discharge Test Methodologies and Criteria for Electronic Equipment
- IEEE/ANSI Std C63.17-2013, American National Standard Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices
- IEEE/ANSI Std C63.18-2014, American National Standard Recommended Practice for an On-Site, Ad Hoc Test Method for Estimating Radiated Electromagnetic Immunity of Medical Devices to Specific Radio-Frequency Transmitters
- IEEE/ANSI Std C63.19-2011, American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids
- IEEE/ANSI Std C63.22-2004, American National Standard Guide for Automated Electromagnetic Interference Measurements
- IEEE/ANSI Std C63.23-2012, American National Standard Guide for Electromagnetic Compatibility Computations and Treatment of Measurement Uncertainty
- IEEE/ANSI C63.26-2015, IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

C95 Series

- IEEE Std C95.1-2005, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- IEEE Std C95.1-2005, IEEE Standards Interpretations for IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- IEEE Std C95.1a-2010, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz Amendment 1: Specifies Ceiling Limits for Induced and Contact Current, Clarifies Distinctions between Localized Exposure and Spatial Peak Power Density
- IEEE C95.1-2345-2014, IEEE Standard for Military Workplaces--Force Health Protection Regarding Personnel Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
- IEEE Std C95.2-1999 (R2005), IEEE Standard for Radio-Frequency Energy and Current-Flow Symbols
- IEEE Std C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz
- IEEE Std C95.3.1-2010, IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz to 100 kHz
- IEEE Std C95.4-2002, (R2008) IEEE Recommended Practice for Determining Safe Distances from Radio Frequency Transmitting Antennas When Using Electric Blasting Caps During Explosive Operations
- IEEE Std C95.6-2002, (R2007) IEEE Standard for Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0-3 kHz
- IEEE Std C95.7-2014, IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz

ARCHIVE

- IEEE Std 140-1950, IEEE Recommended Practice for Minimization of Interference from Radio-Frequency Heating Equipment
- IEEE Std 140-1990 (R1995), IEEE Recommended Practice for Minimization of Interference from Radio-Frequency Heating Equipment IEEE Std 187-1951, Standards on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from Frequency Modulation and Television Broadcast Receivers

- IEEE Std 187-1951, IEEE Standard on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from FM and Television Broadcast Receivers
- IEEE Std 187-1990 (R1995), IEEE Standard on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from FM and Television Broadcast Receivers
- IEEE Std 213-1987, IEEE Standard Procedure for Measuring Conducted Emissions in the Range of 300 kHz to 25 MHz from Television and FM Broadcast Receivers to Power Lines
- IEEE Std 214-1961, IEEE Standard Construction Drawings of Line Impedance Network Required for Measurement of Conducted Interference to the Power Line from FM and Television Broadcast Receivers in the Range of 300 kHz to 25 MHz as Specified in IEEE Std 213-1961.
- IEEE Std 263-1965, IEEE Standard for Measurement of Radio Noise Generated by Motor Vehicles and Affecting Mobile Communications Receivers in the Frequency Range 25-1000 megahertz
- IEEE Std 272-1970, IEEE Standard for Computer-Type (Square-Loop) Pulse Transformers
- IEEE Std 291-1991, IEEE Standard Methods for Measuring Electromagnetic Field Strength of Sinusoidal Continuous Waves, 30 Hz to 30 GHz
- IEEE Std 296-1969, IEEE Standard Definitions of Terms, Letter Symbols, and Color Code for Hall Effect Devices
- IEEE Std 299-1991, IEEE Recommended Practice for Measurement of Shielding Effectiveness of High-Performance Shielding Enclosures
- IEEE Std 299-1997, IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures
- IEEE Std 376-1975 (W2004), IEEE Standard for the Measurement of Impulse Strength and Impulse Bandwidth
- IEEE Std 469-1977, IEEE Recommended Practice for Voice-Frequency Electrical-Noise Tests of Distribution Transformers
- IEEE Std 469-1988 (R2008), IEEE Recommended Practice for Voice-Frequency Electrical-Noise Tests of Distribution Transformers
- IEEE Std 475-1983, IEEE Standard Measurement Procedure for Field-Disturbance Sensors (rf Intrusion Alarms)
- IEEE Std 473-1985 (W2006), IEEE Recommended Practice for an Electromagnetic Site Survey (10kHz to 10 GHz)
- IEEE Std 475-1983 (R1994), IEEE Standard Measurement Procedure for Field-Disturbance Sensors (rf Intrusion Alarms)
- IEEE Std 518-1982 (R1996), IEEE Guide for the Installation of Electrical Equipment to Minimize Electrical Noise Inputs to Controllers from External Sources
- IEEE Std 644-1979, IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields From AC Power Lines –
- IEEE Std 644-1987, IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields From AC Power Lines –
- IEEE Std 776-1987, IEEE Guide for Inductive Coordination of Electric Supply and Communication Lines
- IEEE Std 1302-1998, IEEE Trial-Use Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers
- IEEE Std 1309-1996, IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz
- IEEE Std 1309-2005, IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz
- IEEE Std 1528-2003, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques

- IEEE/ANSI Std C37.90.2-1995, Draft American National Standard IEEE Trial-Use Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers –
- IEEE/ANSI Std C37.90.2-1987, IEEE Trial-Use Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

C63 Series

- IEEE/ANSI Std C63.2-1980, Electromagnetic Noise and Field Strength, 10 kHz to 40 kHz Specifications
- IEEE/ANSI Std C63.2-1987, Electromagnetic Noise and Field Strength, 10 kHz to 40 kHz Specifications
- IEEE/ANSI Std C63.2-1996, American National Standard for Electromagnetic Noise and Field Strength Instrumentation, 10 Hz to 40 GHz-Specifications
- IEEE/ANSI Std C63.2-2009, American National Standard for Electromagnetic Noise and Field Strength Instrumentation, 10 Hz to 40 GHz-Specifications
- IEEE/ANSI Std C63.4-1992, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.4-1988, Interim Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.4-1991, Interim Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.4-2001, Interim Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- IEEE/ANSI Std C63.4-2009, American National Standard Guide for the Computation of Errors in Open-Area Test Site Measurements
- IEEE/ANSI C63.5-1988, American National Standard for Electromagnetic Compatibility-Radiated Emission Measurements in Electromagnetic Interference (EMI) Control-Calibration of Antennas (9 kHz to 40 GHz)
- IEEE/ANSI Std C63.5-1998, ANSI Std C63.5-1998, American National Standard for Electromagnetic Compatibility-Radiated Emission Measurements in Electromagnetic Interference (EMI) Control-Calibration of Antennas (9 kHz to 40 GHz)
- IEEE/ANSI Std C63.5-2004, American National Standard for Electromagnetic Compatibility-Radiated Emission Measurements in Electromagnetic Interference (EMI) Control-Calibration of Antennas (9 kHz to 40 GHz)
- IEEE/ANSI Std C63.6-1988, American National Standard Guide for the Computation of Errors in Open-Area - Test Site Measurements
- IEEE/ANSI Std C63.6-1996, American National Standard Guide for the Computation of Errors in Open-Area Test Site Measurements
- IEEE/ANSI Std C63.7-1988, American National Standard Guide for Construction of Open Area Test Sites for Performing Radiated Emission Measurements
- IEEE/ANSI Std C63.7-1992, American National Standard Guide for Construction of Open-Area Test Sites for Performing Radiated Emission Measurements
- IEEE/ANSI Std C63.7-2005, American National Standard Guide for Construction of Open-Area Test Sites for Performing Radiated Emission Measurements
- IEEE/ANSI Std C63.12-1987, American National Standard for Electromagnetic Compatibility Limits-Recommended Practice
- IEEE/ANSI Std C63.12-1999, American National Standard for Electromagnetic Compatibility Limits-Recommended Practice

- IEEE/ANSI Std C63.14-1992, American National Standard Dictionary for Technologies of Electromagnetic Compatibility (EMC), Electromagnetic Pulse (EMP), and Electrostatic Discharge (ESD)
- IEEE/ANSI Std C63.14-1998, American National Standard Dictionary for Technologies of Electromagnetic Compatibility (EMC), Electromagnetic Pulse (EMP), and Electrostatic Discharge (ESD)
- IEEE/ANSI Std C63.14-2009, American National Standard Dictionary for Technologies of Electromagnetic Compatibility (EMC), Electromagnetic Pulse (EMP), and Electrostatic Discharge (ESD)
- IEEE/ANSI Std C63.16-1993, American National Standard Guide for Electrostatic Discharge Test Methodologies and Criteria for Electronic Equipment
- IEEE/ANSI Std C63.17-1998, American National Standard for Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices
- IEEE/ANSI Std C63.17-2006, American National Standard Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices
- IEEE/ANSI Std C63.18–1997, Recommended Practice for an On-site, Ad-Hoc Test Method for Estimating Radiated Electromagnetic Immunity of Medical Devices to Specific Radio Frequency Transmitters
- IEEE/ANSI Std C63.19-2001, American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids
- IEEE/ANSI Std C63.19-2006, American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids
- IEEE/ANSI Std C63.19-2007, American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids

C95 Series

- IEEE Std C95.1-1981, American National Standard Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz
- IEEE Std C95.1-1991, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- IEEE Std C95.1-1999, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- IEEE Std C95.1b-2004, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz Amendment 2: Specific Absorption Rate (SAR) Limits for the Pinna
- IEEE Std C95.2-1982, American National Standard Radio Frequency Radiation Hazard Warning Symbol
- IEEE Std C95.3-1973 (R1979), American National Standard Techniques and Instrumentation for the Measurement of Potentially Hazardous Electromagnetic Radiation at Microwave Frequencies
- IEEE Std C95.3-1991, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields-RF and Microwave
- IEEE Std C95.5-1981, American National IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- IEEE Std C95.7-2005, IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz
- IEEE Std C95.1b-2004, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz - Amendment 2: Specific Absorption Rate (SAR) Limits for the Pinna

