

BZKI – Zuverlässige drahtlose Kommunikation in der Industrie

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1. Bestehende Normen und Spezifikationen zu „wireless“

1.1 Internationale Normen der IEC

IEC/TR 62918:2014	Nuclear power plants – Instrumentation and control important to safety – Use and selection of wireless devices to be integrated in systems important to safety
IEC 61158-1:2014	Industrial communication networks – Fieldbus specifications – Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series
IEC 61918:2013	Industrial communication networks – Installation of communication networks in industrial premises

IEC 62037-5:2013	Industrial communication networks – Installation of communication networks in industrial premises
IEC 62591:2010	Industrial networks – Wireless communication network and communication profiles – WirelessHART
IEC 62601:2011	Industrial networks – Wireless communication network and communication profiles – WIA-PA
IEC/TS 62657-1:2014	Industrial communication networks – Wireless communication networks – Part 1: Wireless communication requirements and spectrum considerations
IEC 62657-2:2013	Industrial communication networks – Wireless communication networks – Part 2: Coexistence management
IEC 62734:2014	Industrial networks – Wireless communication network and communication profiles – ISA 100.11a
IEC/TR 61375-2-7:2014	Electronic railway equipment – Train communication network (TCN) – Part 2-7: Wireless Train Backbone (WLTB)
IEC 60770-3:2014	Transmitters for use in industrial-process control systems – Part 3: Methods for performance evaluation of intelligent transmitters
IEC/TS 61000-5-9:2009	Electromagnetic compatibility (EMC) – Part 5-9: Installation and mitigation guidelines – System-level susceptibility assessments for HEMP and HPEM
IEC/TR 62869:2013	Activities and considerations related to wireless power transfer (WPT) for audio, video and multimedia systems and equipment
IEC/TR 80001-2-3:2012	Application of risk management for IT-networks incorporating medical devices – Part 2-3: Guidance for wireless networks

1.2 Internationale Normen der ISO

ISO 15638-1:2012	Intelligent transport systems – Framework for collaborative Telematics Applications for Regulated commercial freight Vehicles (TARV) – Part 1: Framework and architecture
ISO 15638-5:2013	Intelligent transport systems – Framework for collaborative Telematics Applications for Regulated commercial freight Vehicles (TARV) – Part 5: Generic vehicle information
ISO 17264:2009	Intelligent transport systems – Automatic vehicle and equipment identification – Interfaces
ISO 21212:2008	Intelligent transport systems – Communications access for land mobiles (CALM) – 2G Cellular systems
ISO 21213:2008	Intelligent transport systems – Communications access for land mobiles (CALM) – 3G Cellular systems
ISO 21214:2006	Intelligent transport systems – Communications access for land mobiles (CALM) – Infra-red systems
ISO 24101-1:2008	Intelligent transport systems – Communications access for land mobiles (CALM) – Application management – Part 1: General requirements

ISO 24978:2009	Intelligent transport systems – ITS Safety and emergency messages using any available wireless media – Data registry procedures
ISO 25111:2009	Intelligent transport systems – Communications access for land mobiles (CALM) – General requirements for using public networks
ISO 25112:2010	Intelligent transport systems – Communications access for land mobiles (CALM) – Mobile wireless broadband using IEEE 802.16
ISO 25113:2010	Intelligent transport systems – Communications access for land mobiles (CALM) – Mobile wireless broadband using HC-SDMA
ISO 29283:2011	ITS CALM Mobile Wireless Broadband applications using Communications in accordance with IEEE 802.20
ISO/IEEE 11073-30300:2004	Health informatics – Point-of-care medical device communication – Part 30300: Transport profile – Infrared wireless
ISO/TR 21730:2007	Health informatics – Use of mobile wireless communication and computing technology in healthcare facilities – Recommendations for electromagnetic compatibility (management of unintentional electromagnetic interference) with medical devices
ISO 19133:2005	Geographic information – Location-based services – Tracking and navigation
ISO 19134:2007	Geographic information – Location-based services – Multimodal routing and navigation
ISO 24631-2:2009	Radiofrequency identification of animals – Part 2: Evaluation of conformance of RFID transceivers with ISO 11784 and ISO 11785
ISO 24631-5:2014	Radio frequency identification of animals – Part 5: Procedure for testing the capability of RFID transceivers of reading ISO 11784 and ISO 11785 transponders

1.3 Internationale Normen von ISO/IEC JTC 1

ISO/IEC/IEEE 8802-11:2012	Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks -- Specific requirements – Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications mit Änderung A1:2014 und Änderung A2:2014 und Änderung A3:2014
ISO/IEC/IEEE 8802-15-4:2010	Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks -- Specific requirements – Part 15-4: Wireless medium access control (MAC) and physical layer (PHY) specifications for low-rate wireless personal area networks (WPANs)
ISO/IEC 9798-6:2010	Information technology – Security techniques – Entity authentication – Part 6: Mechanisms using manual data transfer
ISO/IEC 13156:2011	Information technology – Telecommunications and information exchange between systems – High rate 60 GHz PHY, MAC and PALs

ISO/IEC 15149:2011	Information technology – Telecommunications and information exchange between systems – Magnetic field area network (MFAN)
ISO/IEC 15149-1:2014	Information technology – Telecommunications and information exchange between systems – Magnetic field area network (MFAN) – Part 1: Air interface
ISO/IEC 15428:1999	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Specification, functional model and information flows – Wireless Terminal Location Registration supplementary service and Wireless Terminal Information Exchange additional network feature
ISO/IEC 15429:2003	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network -- Inter-exchange signalling protocol – Wireless Terminal Location Registration supplementary service and Wireless Terminal Information exchange additional network feature
ISO/IEC 15430:1999	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Specification, functional model and information flows – Wireless terminal call handling additional network features
ISO/IEC 15431:2003	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Inter-exchange signalling protocol – Wireless terminal call handling additional network features
ISO/IEC 15432:1999	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Specification, functional model and information flows – Wireless Terminal Authentication supplementary services (WTAT and WTAN)
ISO/IEC 15433:2003	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Inter-exchange signalling protocol – Wireless Terminal Authentication supplementary services
ISO/IEC 16504:2011	Information technology – Telecommunications and information exchange between systems – MAC and PHY for operation in TV white space
ISO/IEC 17568:2013	Information technology – Telecommunications and information exchange between systems – Close proximity electric induction wireless communications
ISO/IEC/TR 26905:2006	Information technology – Telecommunications and information exchange between systems – Enterprise Communication in Next Generation Corporate Networks (NGCN) involving Public Next Generation Networks (NGN)
ISO/IEC 26907:2009	Information technology – Telecommunications and information exchange between systems – High-rate ultra-wideband PHY and MAC standard
ISO/IEC 26908:2009	Information technology – Telecommunications and information exchange between systems – MAC-PHY interface for ISO/IEC 26907

ISO/IEC/TR 26927:2011	Information technology – Telecommunications and information exchange between systems – Corporate telecommunication networks – Mobility for enterprise communications
ISO/IEC 17876:2003	Information technology – Telecommunications and information exchange between systems – Private Integrated Services Network – Inter-exchange signalling protocol – Private User Mobility (PUM) – Registration supplementary service
ISO/IEC 24771:2014	Information technology – Telecommunications and information exchange between systems – MAC/PHY standard for ad hoc wireless network to support QoS in an industrial work environment
ISO/IEC 29157:2010	Information technology – Telecommunications and information exchange between systems – PHY/MAC specifications for short-range wireless low-rate applications in the ISM band
ISO/IEC 29180:2012	Information technology – Telecommunications and information exchange between systems – Security framework for ubiquitous sensor networks
ISO/IEC 14543-3-10:2012	Information technology -- Home Electronic Systems (HES) – Part 3-10: Wireless Short-Packet (WSP) protocol optimized for energy harvesting – Architecture and lower layer protocols
ISO/IEC 14543-5-1:2010	Information technology – Home electronic system (HES) architecture – Part 5-1: Intelligent grouping and resource sharing for Class 2 and Class 3 – Core protocol
ISO/IEC 14543-5-3:2012	Information technology – Home electronic system (HES) architecture – Part 5-3: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Basic application
ISO/IEC 14543-5-4:2010	Information technology – Home electronic system (HES) architecture – Part 5-4: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Device validation
ISO/IEC 14543-5-6:2012	Information technology – Home electronic system (HES) architecture – Part 5-6: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Service type
ISO/IEC 14543-5-21:2012	Information technology – Home electronic system (HES) architecture – Part 5-21: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Application profile – AV profile
ISO/IEC 14543-5-22:2010	Information technology – Home electronic system (HES) architecture – Part 5-22: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Application profile – File profile
ISO/IEC 15444-11:2007	Information technology – JPEG 2000 image coding system: Wireless mit Änderung A1:2013
ISO/IEC 18046-2:2011	Information technology – Radio frequency identification device performance test methods – Part 2: Test methods for interrogator performance
ISO/IEC/TR 24704:2004	Information technology – Customer premises cabling for wireless access points

ISO/IEC/TR 24729-3:2009	Information technology – Radio frequency identification for item management – Implementation guidelines – Part 3: Implementation and operation of UHF RFID Interrogator systems in logistics applications
ISO/IEC 24730-61:2013	Information technology – Real time locating systems (RTLS) – Part 61: Low rate pulse repetition frequency Ultra Wide Band (UWB) air interface
ISO/IEC 24793-1:2011	Information technology – Mobile multicast communications: Framework
ISO/IEC 24793-2:2011	Information technology – Mobile multicast communications: Protocol over native IP multicast networks
ISO/IEC 29143:2011	Information technology – Automatic identification and data capture techniques – Air interface specification for Mobile RFID interrogators
ISO/IEC 29145-1:2014	Information technology – Wireless beacon-enabled energy efficient mesh network (WiBEEM) for wireless home network services – Part 1: PHY layer
ISO/IEC 29145-2:2014	Information technology – Wireless beacon-enabled energy efficient mesh network (WiBEEM) for wireless home network services – Part 2: MAC layer
ISO/IEC 29145-3:2014	Information technology – Wireless beacon-enabled energy efficient mesh network (WiBEEM) for wireless home network services – Part 3: NWK layer
ISO/IEC 29341-1:2011	Information technology – UPnP device architecture – Part 1: UPnP Device Architecture Version 1.0
ISO/IEC 29341-2:2008	Information technology – UPnP Device Architecture – Part 2: Basic Device Control Protocol – Basic Device
ISO/IEC 29341-3-2:2008	Information technology – UPnP Device Architecture – Part 3-2: Audio Video Device Control Protocol - Media Renderer Device
ISO/IEC 29341-3-3:2008	Information technology – UPnP Device Architecture – Part 3-3: Audio Video Device Control Protocol – Media Server Device
ISO/IEC 29341-3-10:2008	Information technology – UPnP Device Architecture – Part 3-10: Audio Video Device Control Protocol – Audio Video Transport Service
ISO/IEC 29341-3-11:2008	Information technology – UPnP Device Architecture – Part 3-11: Audio Video Device Control Protocol – Connection Manager Service
ISO/IEC 29341-3-12:2008	Information technology – UPnP Device Architecture – Part 3-12: Audio Video Device Control Protocol – Content Directory Service
ISO/IEC 29341-3-13:2008	Information technology – UPnP Device Architecture – Part 3-13: Audio Video Device Control Protocol – Rendering Control Service
ISO/IEC 29341-4-3:2008	Information technology – UPnP Device Architecture – Part 4-3: Audio Video Device Control Protocol – Level 2 – Media Server Device
ISO/IEC 29341-4-12:2008	Information technology – UPnP Device Architecture – Part 4-12: Audio Video Device Control Protocol – Level 2 – Content Directory Service
ISO/IEC 29341-5-1:2008	Information technology – UPnP Device Architecture – Part 5-1: Digital Security Camera Device Control Protocol – Digital Security Camera Device

ISO/IEC 29341-5-10:2008	Information technology – UPnP Device Architecture – Part 5-10: Digital Security Camera Device Control Protocol – Digital Security Camera Motion Image Service
ISO/IEC 29341-5-11:2008	Information technology – UPnP Device Architecture – Part 5-11: Digital Security Camera Device Control Protocol – Digital Security Camera Settings Service
ISO/IEC 29341-5-12:2008	Information technology – UPnP Device Architecture – Part 5-12: Digital Security Camera Device Control Protocol – Digital Security Camera Still Image Service
ISO/IEC 29341-6-1:2008	Information technology – UPnP Device Architecture – Part 6-1: Heating, Ventilation and Air Conditioning Device Control Protocol – System Device
ISO/IEC 29341-6-2:2008	Information technology – UPnP Device Architecture – Part 6-2: Heating, Ventilation and Air Conditioning Device Control Protocol – Zone Thermostat Device
ISO/IEC 29341-6-10:2008	Information technology – UPnP Device Architecture – Part 6-10: Heating, Ventilation and Air Conditioning Device Control Protocol – Control Valve Service
ISO/IEC 29341-6-11:2008	Information technology – UPnP Device Architecture – Part 6-11: Heating, Ventilation and Air Conditioning Device Control Protocol – Fan Operating Mode Service
ISO/IEC 29341-6-12:2008	Information technology – UPnP Device Architecture – Part 6-12: Heating, Ventilation and Air Conditioning Device Control Protocol – Fan Speed Service
ISO/IEC 29341-6-13:2008	Information technology – UPnP Device Architecture – Part 6-13: Heating, Ventilation and Air Conditioning Device Control Protocol – House Status Service
ISO/IEC 29341-6-14:2008	Information technology – UPnP Device Architecture – Part 6-14: Heating, Ventilation and Air Conditioning Device Control Protocol – Setpoint Schedule Service
ISO/IEC 29341-6-15:2008	Information technology – UPnP Device Architecture – Part 6-15: Heating, Ventilation and Air Conditioning Device Control Protocol – Temperature Sensor Service
ISO/IEC 29341-6-16:2008	Information technology – UPnP Device Architecture – Part 6-15: Heating, Ventilation and Air Conditioning Device Control Protocol – Temperature Sensor Service
ISO/IEC 29341-6-17:2008	Information technology – UPnP Device Architecture – Part 6-17: Heating, Ventilation and Air Conditioning Device Control Protocol – User Operating Mode Service
ISO/IEC 29341-7-1:2008	Information technology – UPnP Device Architecture – Part 7-1: Lighting Device Control Protocol – Binary Light Device
ISO/IEC 29341-7-2:2008	Information technology – UPnP Device Architecture – Part 7-2: Lighting Device Control Protocol – Dimmable Light Device
ISO/IEC 29341-7-10:2008	Information technology – UPnP Device Architecture – Part 7-10: Lighting Device Control Protocol – Dimming Service

ISO/IEC 29341-7-11:2008	Information technology – UPnP Device Architecture – Part 7-11: Lighting Device Control Protocol – Switch Power Service
ISO/IEC 29341-8-1:2008	Information technology – UPnP Device Architecture – Part 8-1: Internet Gateway Device Control Protocol – Internet Gateway Device
ISO/IEC 29341-8-2:2008	Information technology – UPnP Device Architecture – Part 8-2: Internet Gateway Device Control Protocol – Local Area Network Device
ISO/IEC 29341-8-3:2008	Information technology – UPnP Device Architecture – Part 8-3: Internet Gateway Device Control Protocol – Wide Area Network Device
ISO/IEC 29341-8-4:2008	Information technology – UPnP Device Architecture – Part 8-4: Internet Gateway Device Control Protocol – Wide Area Network Connection Device
ISO/IEC 29341-8-5:2008	Information technology – UPnP Device Architecture – Part 8-5: Internet Gateway Device Control Protocol – Wireless Local Area Network Access Point Device
ISO/IEC 29341-8-10:2008	Information technology – UPnP Device Architecture – Part 8-10: Internet Gateway Device Control Protocol – Local Area Network Host Configuration Management Service
ISO/IEC 29341-8-11:2008	Information technology – UPnP Device Architecture – Part 8-11: Internet Gateway Device Control Protocol – Layer 3 Forwarding Service
ISO/IEC 29341-8-12:2008	Information technology – UPnP Device Architecture – Part 8-12: Internet Gateway Device Control Protocol – Link Authentication Service
ISO/IEC 29341-8-13:2008	Information technology – UPnP Device Architecture – Part 8-13: Internet Gateway Device Control Protocol – Radius Client Service
ISO/IEC 29341-8-14:2008	Information technology – UPnP Device Architecture – Part 8-14: Internet Gateway Device Control Protocol – Wide Area Network Cable Link Configuration Service
ISO/IEC 29341-8-15:2008	Information technology – UPnP Device Architecture – Part 8-15: Internet Gateway Device Control Protocol – Wide Area Network Common Interface Configuration Service
ISO/IEC 29341-8-16:2008	Information technology – UPnP Device Architecture – Part 8-16: Internet Gateway Device Control Protocol – Wide Area Network Digital Subscriber Line Configuration Service
ISO/IEC 29341-8-17:2008	Information technology – UPnP Device Architecture – Part 8-17: Internet Gateway Device Control Protocol – Wide Area Network Ethernet Link Configuration Service
ISO/IEC 29341-8-18:2008	Information technology – UPnP Device Architecture – Part 8-18: Internet Gateway Device Control Protocol – Wide Area Network Internet Protocol Connection Service
ISO/IEC 29341-8-19:2008	Information technology – UPnP Device Architecture – Part 8-19: Internet Gateway Device Control Protocol – Wide Area Network Plain Old Telephone Service Link Configuration Service
ISO/IEC 29341-8-20:2008	Information technology – UPnP Device Architecture – Part 8-20: Internet Gateway Device Control Protocol – Wide Area Network Point-to-Point Protocol Connection Service

ISO/IEC 29341-8-21:2008	Information technology – UPnP Device Architecture – Part 8-21: Internet Gateway Device Control Protocol – Wireless Local Area Network Configuration Service
ISO/IEC 29341-9-1:2008	Information technology – UPnP Device Architecture – Part 9-1: Imaging Device Control Protocol – Printer Device
ISO/IEC 29341-9-2:2008	Information technology – UPnP Device Architecture – Part 9-2: Imaging Device Control Protocol – Scanner Device
ISO/IEC 29341-9-10:2008	Information technology – UPnP Device Architecture – Part 9-10: Imaging Device Control Protocol – External Activity Service
ISO/IEC 29341-9-11:2008	Information technology – UPnP Device Architecture – Part 9-11: Imaging Device Control Protocol – Feeder Service
ISO/IEC 29341-9-12:2008	Information technology – UPnP Device Architecture – Part 9-12: Imaging Device Control Protocol – Print Basic Service
ISO/IEC 29341-9-13:2008	Information technology – UPnP Device Architecture – Part 9-13: Imaging Device Control Protocol – Scan Service
ISO/IEC 29341-10-1:2008	Information technology – UPnP Device Architecture – Part 10-1: Quality of Service Device Control Protocol – Quality of Service Architecture
ISO/IEC 29341-10-10:2008	Information technology – UPnP Device Architecture – Part 10-10: Quality of Service Device Control Protocol – Quality of Service Device Service
ISO/IEC 29341-10-11:2008	Information technology – UPnP Device Architecture – Part 10-11: Quality of Service Device Control Protocol – Quality of Service Manager Service
ISO/IEC 29341-10-12:2008	Information technology – UPnP Device Architecture – Part 10-12: Quality of Service Device Control Protocol – Quality of Service Policy Holder Service
ISO/IEC 29341-11-1:2008	Information technology – UPnP Device Architecture – Part 11-1: Quality of Service Device Control Protocol – Level 2 – Quality of Service Architecture
ISO/IEC 29341-11-2:2008	Information technology – UPnP Device Architecture – Part 11-2: Quality of Service Device Control Protocol – Level 2 – Quality of Service Schemas
ISO/IEC 29341-11-10:2008	Information technology – UPnP Device Architecture – Part 11-10: Quality of Service Device Control Protocol – Level 2 – Quality of Service Device Service
ISO/IEC 29341-11-11:2008	Information technology – UPnP Device Architecture – Part 11-11: Quality of Service Device Control Protocol – Level 2 – Quality of Service Manager Service
ISO/IEC 29341-11-12:2008	Information technology – UPnP Device Architecture – Part 11-12: Quality of Service Device Control Protocol – Level 2 – Quality of Service Policy Holder Service
ISO/IEC 29341-12-1:2008	Information technology – UPnP Device Architecture – Part 12-1: Remote User Interface Device Control Protocol – Remote User Interface Client Device

ISO/IEC 29341-12-2:2008	Information technology – UPnP Device Architecture – Part 12-2: Remote User Interface Device Control Protocol – Remote User Interface Server Device
ISO/IEC 29341-12-10:2008	Information technology – UPnP Device Architecture – Part 12-10: Remote User Interface Device Control Protocol – Remote User Interface Client Service
ISO/IEC 29341-12-11:2008	Information technology – UPnP Device Architecture – Part 12-11: Remote User Interface Device Control Protocol – Remote User Interface Server Service
ISO/IEC 29341-13-10:2008	Information technology – UPnP Device Architecture – Part 13-10: Device Security Device Control Protocol – Device Security Service
ISO/IEC 29341-13-11:2008	Information technology – UPnP Device Architecture – Part 13-11: Device Security Device Control Protocol – Security Console Service

1.4 Europäische Normen des CENELEC (ohne IEC-Übernahmen)

EN 50383:2010	Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base stations and fixed terminal stations for wireless telecommunication systems (110 MHz - 40 GHz) mit Berichtigung AC:2013
EN 50384:2002	Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110 MHz - 40 GHz) – Occupational mit Corrigendum Mai 2010
EN 50385:2002	Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110 MHz - 40 GHz) – General public
EN 50400:2006	Basic standard to demonstrate the compliance of fixed equipment for radio transmission (110 MHz - 40 GHz) intended for use in wireless telecommunication networks with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields, when put into service mit Berichtigung AC:2011 und Änderung A1:2012
EN 50401:2006	Product standard to demonstrate the compliance of fixed equipment for radio transmission (110 MHz - 40 GHz) intended for use in wireless telecommunication networks with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields, when put into service mit Änderung A1:2011
EN 50463-4:2012	Railway applications – Energy measurement on board trains – Part 4: Communication

EN 50491-5-1:2010	General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 5-1: EMC requirements, conditions and test set-up
EN 50500:2008	Measurement procedures of magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure
EN 50566:2013	Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz - 6 GHz)
EN 50566:2013	Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz - 6 GHz) mit Berichtigung AC:2014

1.5 Europäische Normen des CEN (ohne ISO-Übernahmen)

CEN/TR 16405:2013	Intelligent transport systems – ESafety – ECall additional optional data set for heavy goods vehicles eCall
CEN/TS 16454:2013	Intelligent transport systems – ESafety – ECall end to end conformance testing zurzeit Projekt EN 16454, siehe prEN 16454:2014
EN 1434-3:2008	Heat meters – Part 3: Data exchange and interface
EN 1915-1:2013	Aircraft ground support equipment – General requirements – Part 1: Basic safety requirements
EN 13757-4:2013	Communication systems for meters and remote reading of meters – Part 4: Wireless meter readout (Radio meter reading for operation in SRD bands)
EN 13757-5:2008	Communication systems for meters and remote reading of meters – Part 5: Wireless relaying
EN 14658:2005	Continuous handling equipment and systems – General safety requirements for continuous handling equipment for opencast lignite mining mit Änderung A1:2010
CEN/TR 16674:2014	Information technology – Analysis of privacy impact assessment methodologies relevant to RFID

1.6 Europäische Normen des ETSI

ETSI ES 202706:2014	Environmental Engineering (EE) – Measurement method for power consumption and energy efficiency of wireless access network equipment
ETSI TS 101556-3:2014	Intelligent Transport Systems (ITS) – Infrastructure to Vehicle Communications – Part 3: Communications system for the planning and reservation of EV energy supply using wireless networks

ETSI TR 102519:2014	Lawful Interception (LI) – Lawful Interception of public Wireless LAN Internet Access
ETSI EN 302190:2005	Near Field Communication – Interface and Protocol (NFCIP-1) [ISO/IEC 18092 (2004) modified]
ETSI EN 301824:2003	Private Integrated Services Network (PISN) – Specification, functional model and information flows – Wireless terminal location registration supplementary service and wireless terminal information exchange additional network feature [ISO/IEC 15428 (1999) modified]
ETSI EN 301825:2004	Private Integrated Services Network (PISN) – Inter-exchange signalling protocol – Wireless terminal location registration supplementary service and wireless terminal information exchange Additional Network Feature (ANF) [ISO/IEC 15429 (2003), modified]
ETSI EN 301826:2003	Private Integrated Services Network (PISN) – Specification, functional model and information flows – Wireless terminal call handling additional network features [ISO/IEC 15430 (1999) modified]
ETSI EN 301827:2004	Private Integrated Services Network (PISN) – Inter-exchange signalling protocol – Wireless terminal call handling Additional Network Feature (ANF) [ISO/IEC 15431 (2003), modified]
ETSI EN 301828:2003	Private Integrated Services Network (PISN) – Specification, functional model and information flows – Wireless terminal authentication supplementary services [ISO/IEC 15432 (1999) modified]
ETSI EN 301829:2004	Private Integrated Services Network (PISN) – Inter-exchange signalling protocol – Wireless terminal authentication supplementary service [ISO/IEC 15433 (2003), modified]
ETSI TR 101794:2000	Private Integrated Services Network (PISN) – Wireless Terminal Mobility (WTM) – WTM between networks – Requirements
ETSI EN 301598:2014	White Space Devices (WSD) – Wireless Access Systems operating in the 470 MHz to 790 MHz TV broadcast band – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI TR 103231:2014	White Space Devices (WSD) – Wireless Access Systems operating in the 470 MHz to 790 MHz TV broadcast band – Information on web-listings of TV White Space Databases (TVWSDBs)
ETSI I-ETS 300422:1995	Radio Equipment and Systems (RES) – Technical characteristics and test methods for wireless microphones in the 25 MHz to 3 GHz frequency range
ETSI ETS 300445:1996	Radio Equipment and Systems (RES) – ElectroMagnetic Compatibility (EMC) standard for wireless microphones and similar Radio Frequency (RF) audio link equipment mit Änderung A1:1997
ETSI EN 302623:2009	Broadband Wireless Access Systems (BWA) in the 3 400 MHz to 3 800 MHz frequency band – Mobile Terminal Stations – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 302774:2011	Broadband Wireless Access Systems (BWA) in the 3 400 MHz to 3 800 MHz frequency band – Base Stations – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

ETSI EN 300417-10-1:2003	Transmission and Multiplexing (TM) – Generic requirements of transport functionality of equipment – Part 10-1: Synchronous Digital Hierarchy (SDH) radio specific functionalities
ETSI EN 301997-1:2002	Transmission and Multiplexing (TM) – Multipoint equipment – Radio Equipment for use in Multimedia Wireless Systems (MWS) in the frequency band 40,5 GHz to 43,5 GHz – Part 1: General requirements
ETSI EN 301997-2:2003	Transmission and Multiplexing (TM) – Multipoint equipment – Radio equipment for use in Multimedia Wireless Systems (MWS) in the frequency band 40,5 GHz to 43,5 GHz – Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
ETSI TR 101904:2001	Transmission and Multiplexing (TM) – Time Division Duplex (TDD) in Point-to-Multipoint (P-MP) Fixed Wireless Access (FWA) systems – Characteristics and network applications
ETSI EN 300751:2003	Radio broadcasting systems – DATA Radio Channel (DARC) – System for wireless infotainment forwarding and teledistribution
ETSI TR 101031:1999	Broadband Radio Access Networks (BRAN) – High Performance Radio Local Area Network (HIPERLAN) Type 2 – Requirements and architectures for wireless broadband access
ETSI TR 101378:1998	Broadband Radio Access Networks (BRAN) – Common ETSI - ATM Forum reference model for Wireless ATM Access Systems (WACS)
ETSI TR 101589:2013	Broadband Radio Access Networks (BRAN) – Very high capacity density BWA networks – Protocols
ETSI TR 101856:2001	Broadband Radio Access Networks (BRAN) – Functional Requirements for Fixed Wireless Access systems below 11 GHz: HIPERMAN
ETSI TR 102742:2008	Broadband Radio Access Networks (BRAN) – Consideration of requirements for Mobile Terminal Station (TS) in Broadband Wireless Access Systems (BWA) in the 3 400 MHz to 3 800 MHz Frequency Band
ETSI TS 102177:2010	Broadband Radio Access Networks (BRAN) – HiperMAN – Physical (PHY) layer
ETSI TS 102178:2010	Broadband Radio Access Networks (BRAN) – HiperMAN – Data Link Control (DLC) layer
ETSI TS 102210:2005	Broadband Radio Access Networks (BRAN) – HIPERMAN – System profiles
ETSI TS 102385-1:2008	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.2.1 – Part 1: Protocol Implementation Conformance Statement (PICS) proforma
ETSI TS 102385-2:2008	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.2.1 – Part 2: Test Suite Structure and Test Purposes (TSS&TP)
ETSI TS 102385-3:2008	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.2.1 – Part 3: Abstract Test Suite (ATS)
ETSI TS 102545-1:2009	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.3.1 Part 1: Protocol Implementation Conformance Statement (PICS) proforma

ETSI TS 102545-2:2009	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.3.1 Part 2: Test Suite Structure and Test Purposes (TSS&TP)
ETSI TS 102545-3:2009	Broadband Radio Access Networks (BRAN) – HiperMAN – Conformance Testing for WiMAX/HiperMAN 1.3.1 Part 3: Abstract Test Suite (ATS)
ETSI EN 300700:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS)
ETSI EN 300765-2:2001	Digital Enhanced Cordless Telecommunications (DECT) – Radio in the Local Loop (RLL) Access Profile (RAP) – Part 2: Advanced telephony services
ETSI ETR 246:1995	Digital Enhanced Cordless Telecommunications (DECT) – Application of DECT Wireless Relay Stations (WRS)
ETSI TR 101370:1998	Digital Enhanced Cordless Telecommunications (DECT) – Implementing DECT Fixed Wireless Access (FWA) in an arbitrary spectrum allocation
ETSI TS 101808-1:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 1: Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer
ETSI TS 101808-2:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 2: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)
ETSI TS 101808-3:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 3: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)
ETSI TS 101808-4:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 4: Test Suite Structure (TSS) and Test Purposes (TP) - Data Link Control (DLC) layer
ETSI TS 101808-5:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 5: Abstract Test Suite (ATS) - Data Link Control (DLC) layer – Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)
ETSI TS 101808-6:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 6: Abstract Test Suite (ATS) - Data Link Control (DLC) layer – Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)
ETSI TS 101808-7:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 7: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer
ETSI TS 101808-8:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 8: Abstract Test Suite (ATS) for Network (NWK) layer - Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)

ETSI TS 101808-9:2000	Digital Enhanced Cordless Telecommunications (DECT) – Wireless Relay Station (WRS) – Test Case Library (TCL) – Part 9: Abstract Test Suite (ATS) for Network (NWK) layer - Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)
ETSI EG 201752:2001	Fixed Radio Systems – Point-to-Point and Point-to-Multipoint Equipment and Antennas – Identification of European standards (EN), applicable to fixed radio systems, for the essential requirements under the article 3.1 of the 1999/5/EC Directive
ETSI EN 300636:2000	Fixed Radio Systems – Point-to-multipoint equipment – Time Division Multiple Access (TDMA) – Point-to-multipoint digital radio systems in frequency bands in the range 1 GHz to 3 GHz
ETSI EN 301055:2000	Fixed Radio Systems – Point-to-multipoint equipment – Direct Sequence Code Division Multiple Access (DS-CDMA) – Point-to-multipoint digital radio system in frequency bands in the range 1 GHz to 3 GHz
ETSI EN 301080:2001	Fixed Radio Systems – Point-to-multipoint equipment – Frequency Division Multiple Access (FDMA) – Point-to-multipoint digital radio systems in frequency bands in the range 3 GHz to 11 GHz
ETSI EN 301126-2-1:2000	Fixed Radio Systems – Conformance testing – Part 2-1: Point-to-Multipoint equipment – Definitions and general requirements
ETSI EN 301126-2-2:2000	Fixed Radio Systems – Conformance testing – Part 2-2: Point-to-Multipoint equipment – Test procedures for FDMA systems
ETSI EN 301126-2-3:2004	Fixed Radio Systems – Conformance testing – Part 2-3: Point-to-Multipoint equipment – Test procedures for TDMA systems
ETSI EN 301126-2-4:2000	Fixed Radio Systems – Conformance testing – Part 2-4: Point-to-Multipoint equipment – Test procedures for FH-CDMA systems
ETSI EN 301126-2-5:2000	Fixed Radio Systems – Conformance testing – Part 2-5: Point-to-Multipoint equipment – Test procedures for DS-CDMA systems
ETSI EN 301213-3:2001	Fixed Radio Systems – Point-to-multipoint equipment – Point-to-multipoint digital radio systems in frequency bands in the range 24,25 GHz to 29,5 GHz using different access methods – Part 3: Time Division Multiple Access (TDMA) methods
ETSI EN 301213-5:2001	Fixed Radio Systems – Point-to-multipoint equipment – Point-to-multipoint digital radio systems in frequency bands in the range 24,25 GHz to 29,5 GHz using different access methods – Part 5: Multi-Carrier Time Division Multiple Access (MC-TDMA) methods
ETSI EN 301215-1:2000	Fixed Radio Systems – Point to Multipoint Antennas – Antennas for point-to-multipoint fixed radio systems in the 11 GHz to 60 GHz band – Part 1: General aspects
ETSI EN 301215-2:2002	Fixed Radio Systems – Point-to-Multipoint Antennas – Antennas for point-to-multipoint fixed radio systems in the 11 GHz to 60 GHz band – Part 2: 24 GHz to 30 GHz
ETSI EN 301215-3:2001	Fixed Radio Systems – Point to Multipoint Antennas – Antennas for point-to-multipoint fixed radio systems in the 11 GHz to 60 GHz band – Part 3: Multipoint Multimedia Wireless System in 40,5 GHz to 43,5 GHz
ETSI EN 301253:2001	Fixed Radio Systems – Point-to-multipoint equipment – Frequency Hopping Code Division Multiple Access (FH-CDMA) – Point-to-multipoint digital radio systems in frequency bands in the range 3 GHz to 11 GHz

ETSI EN 301460-1:2000	Fixed Radio Systems – Point-to-multipoint equipment – Part 1: Point-to-multipoint digital radio systems below 1 GHz - Common parameters
ETSI EN 301460-2:2000	Fixed Radio Systems – Point-to-multipoint equipment – Part 2: Point-to-multipoint digital radio systems below 1 GHz - Additional parameters for TDMA systems
ETSI EN 301460-3:2000	Fixed Radio Systems – Point-to-multipoint equipment – Part 3: Point-to-multipoint digital radio systems below 1 GHz - Additional parameters for FH-CDMA systems
ETSI EN 301460-4:2000	Fixed Radio Systems – Point-to-multipoint equipment – Part 4: Point-to-multipoint digital radio systems below 1 GHz - Additional parameters for FDMA systems
ETSI EN 301460-5:2000	Fixed Radio Systems – Point-to-multipoint equipment – Part 5: Point-to-multipoint digital radio systems below 1 GHz - Additional Parameters for DS-CDMA Systems
ETSI EN 301751:2002	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
ETSI EN 301753:2003	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
ETSI EN 302063:2003	Fixed Radio Systems – Multipoint equipment – Multipoint digital radio systems operating in the 31,0 GHz to 33,4 GHz (32 GHz) frequency range
ETSI EN 302217-1:2013	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 1: Overview and system-independent common characteristics
ETSI EN 302217-2-1:2014	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 2-1: System-dependent requirements for digital systems operating in frequency bands where frequency co-ordination is applied
ETSI EN 302217-2-2:2014	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 2-2: Digital systems operating in frequency bands where frequency co-ordination is applied – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 302217-3:2014	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 3: Equipment operating in frequency bands where both frequency coordinated or uncoordinated deployment might be applied – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 302217-4-1:2010	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 4-1: System-dependent requirements for antennas

ETSI EN 302217-4-2:2010	Fixed Radio Systems – Characteristics and requirements for point-to-point equipment and antennas – Part 4-2: Antennas – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 302326-1:2007	Fixed Radio Systems – Multipoint Equipment and Antennas – Part 1: Overview and Requirements for Digital Multipoint Radio Systems
ETSI EN 302326-2:2007	Fixed Radio Systems – Multipoint Equipment and Antennas – Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive for Digital Multipoint Radio Equipment
ETSI EN 302326-3:2008	Fixed Radio Systems – Multipoint Equipment and Antennas – Part 3: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive for Multipoint Radio Antennas
ETSI TR 101036-1:2002	Fixed Radio Systems – Generic wordings for standards on DFRS (Digital Fixed Radio Systems) characteristics – Part 1: General aspects and point-to-point equipment parameters
ETSI TR 101506:2010	Fixed Radio Systems – Generic definitions, terminology and applicability of essential requirements under the article 3.2 of 1999/05/EC Directive to Fixed Radio Systems
ETSI TR 101845:2000	Fixed Radio Systems – Technical Information on RF Interfaces applied by Fixed Service Systems including Fixed Wireless Access (FWA) in the light of the R&TTE Directive (Article 4.2)
ETSI TR 101854:2005	Fixed Radio Systems – Point-to-point equipment – Derivation of receiver interference parameters useful for planning fixed service point-to-point systems operating different equipment classes and/or capacities
ETSI TR 101938:2002	Fixed Radio Systems – Electronically steerable antennas – Multipoint (MP) antennas – Fixed Wireless Access (FWA) radio systems
ETSI TR 101939:2002	Fixed Radio Systems – Multipoint-to-Multipoint systems – Requirements for broadband multipoint-to-multipoint radio systems operating in the 24,25 GHz to 29,5 GHz band and in the available bands within the 31,0 GHz to 33,4 GHz frequency range
ETSI TR 102073-1:2002	Fixed Radio Systems – Deployment considerations for TDD Fixed Wireless Access (FWA) systems – Autonomous Frequency Assignment (AFA) – Part 1: Proof of concept simulation
ETSI TR 102074:2002	Fixed Radio Systems – Mixed mode operation in MultiPoint (MP) Time Division Multiple Access (TDMA) Fixed Wireless Access (FWA) systems – Intersystems co-existence
ETSI TR 102243-1:2013	Fixed Radio Systems – Representative values for transmitter power and antenna gain to support inter- and intra-compatibility and sharing analysis – Part 1: Digital point-to-point systems
ETSI TR 102311:2004	Fixed Radio Systems – Point-to-point equipment – Specific aspects of the spatial frequency reuse method
ETSI TR 102328:2004	Fixed Radio Systems – Multipoint equipment – Report on Fixed Wireless Access systems which apply Mesh topology and operate in applicable Fixed Service bands within the 3 GHz to 11 GHz range

ETSI TR 102565:2007	Fixed Radio Systems (FRS) – Point-to-point systems – Requirements and bit rates of PtP Fixed Radio Systems with packet data interfaces, effects of flexible system parameters, use of mixed interfaces and implications on IP/ATM networks
ETSI TS 102329:2007	Fixed Radio Systems – Point-to-Point equipment – Radio equipment and antennas for use in Point-to-Point High Density applications in the Fixed Services (HDFS) frequency band 64 GHz to 66 GHz
ETSI TS 102524:2006	Fixed Radio Systems – Point-to-Point equipment – Radio equipment and antennas for use in Point-to-Point Millimetre wave applications in the Fixed Services (mmwFS) frequency bands 71 GHz to 76 GHz and 81 GHz to 86 GHz
ETSI TS 103154:2014	Reconfigurable Radio Systems (RRS) – System requirements for operation of Mobile Broadband Systems in the 2 300 MHz - 2 400 MHz band under Licensed Shared Access (LSA)
ETSI ETS 300328:1994	Radio Equipment and Systems (RES) – Wideband transmission systems – Technical characteristics and test conditions for data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques
ETSI ETS 300454:1995	Radio Equipment and Systems (RES) – Wide band audio links – Technical characteristics and test methods mit Änderung A1:1997
ETSI TR 101030:1997	Radio Equipment and Systems (RES) – Radio Local Loop (RLL) Coordination Group – Survey of ETSI activities and recommendations for the ETSI work programme
ETSI ETS 300607-2:1996	Digital cellular telecommunications system (Phase 2) (GSM) – Mobile Station (MS) conformance specification – Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification (GSM 11.10-2)
ETSI EN 301908-19:2013	IMT cellular networks – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 19: OFDMA TDD WMAN (Mobile WiMAX) TDD User Equipment (UE)
ETSI EN 301908-20:2013	IMT cellular networks – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 20: OFDMA TDD WMAN (Mobile WiMAX) TDD Base Stations (BS)
ETSI EN 301908-21:2011	IMT cellular networks – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive – Part 21: OFDMA TDD WMAN (Mobile WiMAX) FDD User Equipment (UE)
ETSI TS 103737:2010	Speech and multimedia Transmission Quality (STQ) – Transmission requirements for narrowband wireless terminals (handset and headset) from a QoS perspective as perceived by the user
ETSI TS 103738:2010	Speech and multimedia Transmission Quality (STQ) – Transmission requirements for narrowband wireless terminals (handsfree) from a QoS perspective as perceived by the user
ETSI TS 103739:2010	Speech and multimedia Transmission Quality (STQ) – Transmission requirements for wideband wireless terminals (handset and headset) from a QoS perspective as perceived by the user

ETSI TS 103740:2010	Speech and multimedia Transmission Quality (STQ) – Transmission requirements for wideband wireless terminals (handsfree) from a QoS perspective as perceived by the user
ETSI ES 201658:1999	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Logical Link Control (LLC) service description
ETSI ES 201659:1999	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Medium Access Control (MAC) service description
ETSI ES 201660:1999	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Physical Layer (PHY) service description
ETSI TR 101156:1999	Terrestrial Trunked Radio (TETRA) – Technical requirements specification for Digital Advanced Wireless Service (DAWS)
ETSI TS 101658:2000	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Logical Link Control (LLC) Service Description
ETSI TS 101659:2000	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Medium Access Control (MAC) Service Description
ETSI TS 101660:2000	Terrestrial Trunked Radio (TETRA) – Digital Advanced Wireless Service (DAWS) – Physical Layer (PHY) Service Description
ETSI TR 122934:2014	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Feasibility study on 3GPP system to Wireless Local Area Network (WLAN) interworking (3GPP TR 22.934 version 12.0.0 Release 12)
ETSI TR 122935:2014	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Feasibility study on Location Services (LCS) for Wireless Local Area Network (WLAN) interworking (3GPP TR 22.935 version 12.0.0 Release 12)
ETSI TR 122937:2014	Universal Mobile Telecommunications System (UMTS) – LTE – Requirements for service continuity between mobile and Wireless Local Area Network (WLAN) networks (3GPP TR 22.937 version 12.0.0 Release 12)
ETSI TS 122234:2014	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Requirements on 3GPP system to Wireless Local Area Network (WLAN) interworking (3GPP TS 22.234 version 12.0.0 Release 12)
ETSI TS 123234:2014	Universal Mobile Telecommunications System (UMTS) – LTE – 3GPP system to Wireless Local Area Network (WLAN) interworking – System description (3GPP TS 23.234 version 12.0.0 Release 12)
ETSI TS 123261:2014	Universal Mobile Telecommunications System (UMTS) – LTE – IP flow mobility and seamless Wireless Local Area Network (WLAN) offload – Stage 2 (3GPP TS 23.261 version 12.0.0 Release 12)
ETSI TS 123327:2014	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Mobility between 3GPP-Wireless Local Area Network (WLAN) interworking and 3GPP systems (3GPP TS 23.327 version 12.0.0 Release 12)
ETSI TS 124234:2015	Universal Mobile Telecommunications System (UMTS) – LTE – 3GPP system to Wireless Local Area Network (WLAN) interworking – WLAN User Equipment (WLAN UE) to network protocols – Stage 3 (3GPP TS 24.234 version 12.1.0 Release 12)

ETSI TS 124235:2015	Universal Mobile Telecommunications System (UMTS) – LTE – 3GPP System to Wireless Local Area Network (WLAN) interworking Management Object (MO) (3GPP TS 24.235 version 12.1.0 Release 12)
ETSI TS 124244:2015	Universal Mobile Telecommunications System (UMTS) – LTE – Wireless LAN control plane protocol for trusted WLAN access to EPC – Stage 3 (3GPP TS 24.244 version 12.1.0 Release 12)
ETSI TS 124327:2014	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Mobility between 3GPP Wireless Local Area Network (WLAN) interworking (I-WLAN) and 3GPP systems – General Packet Radio System (GPRS) and 3GPP I-WLAN aspects – Stage 3 (3GPP TS 24.327 version 12.0.0 Release 12)
ETSI TS 129161:2014	Universal Mobile Telecommunications System (UMTS) – LTE – Interworking between the Public Land Mobile Network (PLMN) supporting packet based services with Wireless Local Area Network (WLAN) access and Packet data Networks (PDN) (3GPP TS 29.161 version 12.0.0 Release 12)
ETSI TS 129234:2013	Universal Mobile Telecommunications System (UMTS) – LTE – 3GPP system to Wireless Local Area Network (WLAN) interworking – Stage 3 (3GPP TS 29.234 version 11.2.0 Release 11)
ETSI TS 132252:2013	Digital cellular telecommunications system (Phase 2+) – Universal Mobile Telecommunications System (UMTS) – LTE – Telecommunication management – Charging management – Wireless Local Area Network (WLAN) charging (3GPP TS 32.252 version 11.1.0 Release 11)
ETSI TS 133234:2012	Universal Mobile Telecommunications System (UMTS) – LTE – 3G security – Wireless Local Area Network (WLAN) interworking security (3GPP TS 33.234 version 11.4.0 Release 11)
ETSI EN 300422:1999	ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM) – Technical characteristics and test methods for wireless microphones in the 25 MHz to 3 GHz frequency range
ETSI EN 300422-1:2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless microphones in the 25 MHz to 3 GHz frequency range – Part 1: Technical characteristics and methods of measurement
ETSI EN 300422-2:2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless microphones in the 25 MHz to 3 GHz frequency range – Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 300454-1:2000	ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM) – Wide band audio links – Part 1: Technical characteristics and test methods
ETSI EN 300454-2:2000	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wide band audio links – Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
ETSI EN 301357-1:2008	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Cordless audio devices in the range 25 MHz to 2 000 MHz – Part 1: Technical characteristics and test methods

ETSI EN 301357-2:2008	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Cordless audio devices in the range 25 MHz to 2 000 MHz – Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 301489-28:2004	Electromagnetic compatibility and Radio spectrum Matters (ERM) – ElectroMagnetic Compatibility (EMC) standard for radio equipment and services – Part 28: Specific conditions for wireless digital video links
ETSI EN 301489-4:2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) – ElectroMagnetic Compatibility (EMC) standard for radio equipment and services – Part 4: Specific conditions for fixed radio links and ancillary equipment
ETSI EN 301489-9:2007	Electromagnetic compatibility and Radio spectrum Matters (ERM) – ElectroMagnetic Compatibility (EMC) standard for radio equipment and services – Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices
ETSI EN 301840-1:2001	ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM) – Digital radio microphones operating in the CEPT Harmonized band 1 785 MHz to 1 800 MHz – Part 1: Technical characteristics and methods of measurement
ETSI EN 301840-2:2001	Electromagnetic compatibility and Radio Spectrum Matters (ERM) – Digital radio microphones operating in the CEPT Harmonized band 1 785 MHz to 1 800 MHz – Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
ETSI EN 301908-8:2002	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks – Part 8: Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (UE) covering essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 301908-9:2002	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks – Part 9: Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (BS) covering essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 302064-1:2004	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless Video Links (WVL) operating in the 1,3 GHz to 50 GHz frequency band – Part 1: Technical characteristics and methods of measurement
ETSI EN 302064-2:2004	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless Video Links (WVL) operating in the 1,3 GHz to 50 GHz frequency band – Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
ETSI EN 303131:2014	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short Range Devices – Wireless alarms with low duty cycle – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI ES 202239:2003	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless digital video links operating above 1,3 GHz – Specification of typical receiver performance parameters for spectrum planning

ETSI TR 102079:2003	Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference Document for licence-exempt Fixed Wireless Access (HIPERMAN) for band C (5,725 GHz to 5,875 GHz)
ETSI TR 102453-1:2006-06	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Converged Fixed-Nomadic Broadband Wireless Access (BWA) – Part 1: Frequencies above 3,4 GHz - System reference document
ETSI TR 102546:2007	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Technical characteristics for Professional Wireless Microphone Systems (PWMS) – System Reference Document
ETSI TR 102555:2007	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Technical characteristics of multiple gigabit wireless systems in the 60 GHz range System Reference Document
ETSI TR 102628:2014	Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference document (SRdoc) – Land Mobile Service – Additional spectrum requirements for future Public Safety and Security (PSS) wireless communication systems in the UHF frequency range
ETSI TR 102791:2013	Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference Document – Short Range Devices (SRD) – Technical characteristics of wireless aids for hearing impaired people operating in the VHF and UHF frequency range
ETSI TR 102837:2010	Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference Document – Broadband Wireless Systems in the 2 300 MHz to 2 400 MHz Range
ETSI TR 102889-2:2011	Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference Document – Short Range Devices (SRD) – Part 2: Technical characteristics for SRD equipment for wireless industrial applications using technologies different from Ultra-Wide Band (UWB)
ETSI TS 102192-1:2004	Electromagnetic compatibility and Radio spectrum Matters (ERM) – International Technical Characteristics and Test Methods – Part 1: Wireless/Radio Microphones in the 25 MHz to 3 GHz Frequency Range
ETSI TS 102192-2:2004	Electromagnetic compatibility and Radio spectrum Matters (ERM) – International Technical Characteristics and Test Methods – Part 2: Cordless audio and Consumer radio microphones in the 25 MHz to 3 GHz Frequency Range
ETSI TS 102887-1:2013	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short Range Devices – Smart Metering Wireless Access Protocol – Part 1: PHY layer
ETSI TS 102887-2:2013	Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short Range Devices – Smart Metering Wireless Access Protocol – Part 2: Data Link Layer (MAC Sub-layer)

1.7 Nationale Normen (DIN+DKE)

- DIN VDE 0753-4 (VDE 0753-4):2009-05 Anwendungsregeln zum sicheren Betrieb/Gebrauch von Medizinprodukten in der extrakorporalen Nierenersatztherapie
- DIN VDE V 0825-1 (VDE V 0825-1):2013-09 Überwachungsanlagen – Drahtlose Personen-Notsignal-Anlagen für gefährliche Alleinarbeiten – Teil 1: Geräte- und Prüfanforderungen

DIN V VDE V 0825-11 (VDE V 0825-11):2007-12 Überwachungsanlagen – Drahtlose Personen-Not-signal-Anlagen für Alleinarbeiten – Teil 11: Geräte- und Prüfanforderungen für Personen-Notsignal-Anlagen unter Nutzung öffentlicher Telekommunikationsnetze

DIN VDE V 0826-1 (VDE V 0826-1):2013-09 Überwachungsanlagen – Teil 1: Gefahrenwarnanlagen (GWA) für Wohnhäuser, Wohnungen und Räume mit wohnungsähnlicher Nutzung – Planung, Einbau, Betrieb, Instandhaltung, Geräte- und Systemanforderungen

DIN VDE 0845 Bbl. 1 (VDE 0845 Bbl. 1):2010-11 Überspannungsschutz von Einrichtungen der Informationstechnik (IT-Anlagen)

1.8 Nationale Spezifikationen des VDE

VDE-AR-E 2122-4-2:2011-03 Elektrische Ausrüstung von Elektro-Straßenfahrzeugen – Induktive Ladung von Elektrofahrzeugen – Teil 4-2: Niedriger Leistungsbereich

VDE-AR-E 2866-10:2009-07 Funkanlagen für die digitale Übertragung von Bild- und Tonsignalen der Behörden und Organisationen mit Sicherheitsaufgaben im 2,3-GHz-Frequenzbereich – Technische Anforderungen und deren Messmethoden

1.9 Nationale Spezifikationen des VDI

VDI/VDE 2185 Blatt 1:2007 Funkgestützte Kommunikation in der Automatisierungstechnik

VDI/VDE 2185 Blatt 2:2009 Funkgestützte Kommunikation in der Automatisierungstechnik – Koexistenzmanagement von Funklösungen

VDI/VDE 2185 Blatt 3:2013 Funkgestützte Kommunikation in der Automatisierungstechnik – Anforderungen und Spezifikationen an die Energieversorgung basierend auf Batterien und Energy Harvesting

VDI/VDE 2657 Blatt 1:2013 Middleware in der Automatisierungstechnik – Grundlagen

VDI 4201 Blatt 4:2012 Mindestanforderungen an automatische Mess- und elektronische Auswerteeinrichtungen zur Überwachung der Emissionen – Digitale Schnittstelle – Spezifische Anforderungen für OPC

1.10 Nationale Spezifikationen des BSI

BASI/TR 03103:2005 Technische Richtlinie Sicheres Wireless LAN – Teil 1: Darstellung und Bewertung der Sicherheitsmechanismen – Teil 2: Vorgaben eines WLAN-Sicherheitskonzepts – Teil 3a: Auswahlkriterien für WLAN-Systeme – Teil 3b: Prüfkriterien für WLAN-Systeme

BASI/TR 03109-1:2013 Technische Richtlinie BSI TR-03109-1 – Smart Metering/Smart Energy – Anlage III: Feinspezifikation Drahtlose LMN-Schnittstelle – Teil a: OMS Specification Volume 2, Primary Communication; Version 1.0

1.11 Nationale Spezifikationen der NAMUR

NAMUR NE 124:2010 Anforderungen an Wireless Automation

NAMUR NE 133:2011 Wireless-Sensor-Netzwerke – Anforderungen an die Konvergenz der verfügbaren Standards

NAMUR NE 136:2011	Anforderungen und Spezifikationen an die Energieversorgung basierend auf Batterien und Energy Harvesting
NAMUR NA 137:2011	Planung und Betrieb von Wireless Sensor Netzwerken

1.12 Nationale Spezifikationen des SEB

SEB 660035:1991	Fördertechnik – Krane mit drahtloser Steuerung – Grundlagen und sicherheitstechnische Anforderungen
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1.13 Nationale Spezifikationen des VdS

VdS 3515:2007	VdS-Richtlinien für Rauchwarnmelder – Rauchwarnmelder mit Funk-Netzwerk – Anforderung und Prüfmethode
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1.14 Nationale Spezifikationen der Berufsgenossenschaften

BGR 149 – DGUV Regel 103:1995	Regeln für die Sicherheit von Einrichtungen zur drahtlosen Übertragung von Steuerbefehlen
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1.15 Nationale Gesetze und Verordnungen

FreqV:2013	Frequenzverordnung (FreqV)
FreqZutV:2001	Frequenzzuteilungsverordnung (FreqZutV)
FreqNPAV:2001	Verordnung über das Verfahren zur Aufstellung des Frequenznutzungsplanes (Frequenznutzungsplanaufstellungsverordnung – FreqNPAV)
TKG:2004	Telekommunikationsgesetz (TKG)
	2009: Erstes Gesetz zur Änderung des Telekommunikationsgesetzes und des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln
	2013: Gesetz zur Änderung des Telekommunikationsgesetzes und zur Neuregelung der Bestandsdatenauskunft (Artikel 1 Änderung des Telekommunikationsgesetzes)
TKRVsÄndG 2012	Gesetz zur Änderung telekommunikationsrechtlicher Regelungen (Artikel 1 Änderung des Telekommunikationsgesetzes; Artikel 4 Änderung der Betriebskostenverordnung)
	2012: Berichtigung des Gesetzes zur Änderung telekommunikationsrechtlicher Regelungen
AFuV:2005	Verordnung zum Gesetz über den Amateurfunk (Amateurfunkverordnung – AFuV)
	2006: Erste Verordnung zur Änderung der Amateurfunkverordnung
BinSchSprFunkV:2002	Verordnung über den Betrieb von Sprechfunkanlagen auf Ultrakurzwellen in der Binnenschifffahrt und den Erwerb des UKW-Sprechfunkzeugnisses für den Binnenschifffahrtfunk (Binnenschifffahrt-Sprechfunkverordnung – BinSchSprFunkV)
	2003: Berichtigung der Binnenschifffahrt-Sprechfunkverordnung

SchSAnpV 3:2001	Dritte Schiffssicherheitsanpassungsverordnung
FlugfunkV:2008	Verordnung über Flugfunkzeugnisse (FlugfunkV) 2009: Erste Verordnung zur Änderung der Verordnung über Flugfunkzeugnisse 2012: Zweite Verordnung zur Änderung der Verordnung über Flugfunkzeugnisse

1.16 Normen und Spezifikationen des IEEE

IEEE 802.11:2012	IEEE Standard for Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications 2012: Amendment 1: Prioritization of Management Frames 2012: Amendment 2: MAC Enhancements for Robust Audio Video Streaming 2012: Amendment 3: Enhancements for Very High Throughput in the 60 GHz Band 2013: Amendment 4: Enhancements for Very High Throughput for Operation in Bands below 6 GHz 2013: Amendment 5: Television White Spaces (TVWS) Operation
IEEE 802.15.1:2005	IEEE Standard for Information technology – Local and metropolitan area networks – Specific requirements – Part 15.1a: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for Wireless Personal Area Networks (WPAN)
IEEE 802.15.2:2003	IEEE Recommended Practice for Information technology – Local and metropolitan area networks – Specific requirements – Part 15.2: Coexistence of Wireless Personal Area Networks with Other Wireless Devices Operating in Unlicensed Frequency Bands
IEEE 802.15.3:2003	IEEE Standard for Information technology – Local and metropolitan area networks - Specific requirements – Part 15.3: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for High Rate Wireless Personal Area Networks (WPAN) 2005: Amendment to MAC Sublayer 2009: Amendment 2: Millimeter-wave-based Alternative Physical Layer Extension

IEEE 802.15.4:2011	<p>IEEE Standard for Local and metropolitan area networks - Part 15.4: Low-Rate Wireless Personal Area Networks (LR-WPANs)</p> <p>2012: Amendment 1: MAC sublayer</p> <p>2012: Amendment 2: Active Radio Frequency Identification (RFID) System Physical Layer (PHY)</p> <p>2012: Amendment 3: Physical Layer (PHY) Specifications for Low-Data-Rate, Wireless, Smart Metering Utility Networks</p> <p>2013: Amendment 4: Alternative Physical Layer Extension to Support Medical Body Area Network (MBAN) Services Operating in the 2 360 MHz 2 400 MHz Band</p> <p>2013: Amendment 5: Physical Layer Specifications for Low Energy, Critical Infrastructure Monitoring Networks</p> <p>2014: Amendment 6: TV White Space Between 54 MHz and 862 MHz Physical Layer</p> <p>2014: Amendment 7: Physical Layer for Rail Communications and Control (RCC)</p>
IEEE 802.15.5:2009	<p>IEEE Recommended Practice for Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks - Specific requirements – Part 15.5: Mesh Topology Capability in Wireless Personal Area Networks (WPANs)</p>
IEEE 802.15.6:2012	<p>Local and metropolitan area networks – Part 15.6: Wireless Body Area Networks</p>
IEEE 802.15.7:2011	<p>Local and metropolitan area networks – Part 15.7: Short-range wireless optical communication using visible light</p>
IEEE 802.16:2012	<p>IEEE Standard for Air Interface for Broadband Wireless Access Systems</p> <p>2012: Amendment 1: Enhancements to Support Machine-to-Machine Applications</p> <p>2013: Amendment 2: Higher Reliability Networks</p>
IEEE 802.16.1:2012	<p>IEEE Standard for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems</p> <p>2012: Amendment 1: Enhancements to Support Machine-to-Machine Applications</p> <p>2013: Amendment 2: Higher Reliability Networks</p>
IEEE 802.16.2:2004	<p>IEEE Recommended Practice for Local and Metropolitan Area Networks Coexistence of Fixed Broadband Wireless Access Systems</p>

IEEE 802.20:2008	<p>IEEE Standard for Local and Metropolitan Area Networks – Part 20: Air Interface for Mobile Broadband Wireless Access Systems Supporting Vehicular Mobility – Physical and Media Access Control Layer Specification</p> <p>2010: Amendment 1: Management Information Base Enhancements and Corrigenda Items</p>
IEEE 802.22:2011	<p>IEEE Standard for Information Technology – Telecommunications and information exchange between systems – Wireless Regional Area Networks (WRAN) - Specific requirements – Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Policies and Procedures for Operation in the TV Bands</p> <p>2014: Amendment 1: Management and Control Plane Interfaces and Procedures and Enhancement to the Management Information Base (MIB)</p>
IEEE 802.22.1:2010	<p>IEEE Standard for Information Technology--Telecommunications and information exchange between systems--Local and metropolitan area networks--Specific requirements Part 22.1: Standard to Enhance Harmful Interference Protection for Low-Power Licensed Devices Operating in TV Broadcast Bands</p>
IEEE 802.22.2:2012	<p>Information Technology – Telecommunications and information exchange between systems – Wireless Regional Area Networks (WRAN) – Specific requirements – Part 22.2: Installation and Deployment of IEEE 802.22™ Systems</p>
IEEE 1451.5:2007	<p>Smart transducer interface for sensors and actuators – Wireless communication protocols and transducer electronic data sheet (TEDS) formats</p>
IEEE 1528:2013	<p>IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques</p> <p>2013: Errata</p>
IEEE 1609.0:2013	<p>IEEE Guide for Wireless Access in Vehicular Environments (WAVE) – Architecture</p>
IEEE 1609.1:2006	<p>Trial-Use Standard for Wireless Access in Vehicular Environments (WAVE) - Resource Manager</p>
IEEE 1609.2:2013	<p>IEEE Standard for Wireless Access in Vehicular Environments Security Services for Applications and Management Messages</p>
IEEE 1609.3:2010	<p>IEEE Standard for Wireless Access in Vehicular Environments (WAVE) – Networking Services</p> <p>2012: Corrigendum 1: Miscellaneous Corrections</p> <p>2014: Corrigendum 2: Miscellaneous Corrections</p>
IEEE 1609.4:2010	<p>IEEE Standard for Wireless Access in Vehicular Environments (WAVE) – Multi-channel Operation</p> <p>2014: Corrigendum 1: Miscellaneous Corrections</p>

IEEE 1609.11:2010	Standard for Wireless Access in Vehicular Environments (WAVE) – Over-the air electronic payment data exchange protocol for Intelligent Transportation Systems (ITS)
IEEE 1609.12:2012	Wireless Access in Vehicular Environments (WAVE) – Identifier Allocations
IEEE 1654:2009	Guide for RF protection of personnel working in the vicinity of wireless communications antennas attached to electric power line structures
IEEE 1900.1:2008	IEEE Standard Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management 2012: Amendment 1: Addition of New Terms and Associated Definitions
IEEE 1900.4:2009	Architectural building blocks enabling network-device distributed decision making for optimized radio resource usage in heterogeneous wireless access networks 2011: Amendment 1: Architecture and Interfaces for Dynamic Spectrum Access Networks in White Space Frequency Bands
IEEE 1900.4.1:2013	IEEE Standard for Interfaces and Protocols Enabling Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Networks
IEEE 1902.1:2009	Long wavelength wireless network protocol
IEEE 11073-00101:2008	Health informatics - PoC medical device communication – Part 10101: Guide – Guidelines for the use of RF wireless technology
IEEE C 63.10:2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
IEC C 63.19:2011	American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids

2. Aktuell laufende Normprojekte zu „wireless“

2.1 Internationale Normprojekte bei IEC

IEC 62918	<p>Nuclear power plants – Instrumentation and control important to safety – Use and selection of wireless devices to be integrated in systems important to safety</p> <p>Further development of IEC/TR 62918:2014-07</p> <p>siehe IEC 45A/994/NP:2014-10</p> <p>national zuständig: DKE/UK 967.1</p>
IEC 62591	<p>Industrial networks – Wireless communication network and communication profiles – WirelessHART</p> <p>Revision of IEC 62591:2010-04</p> <p>siehe IEC 65C/782/CDV:2014-09</p> <p>national zuständig: DKE/K 956</p>
IEC 62601	<p>Industrial networks – Wireless communication network and communication profiles – WIA-PA</p> <p>Revision of IEC 62601:2011-11</p> <p>siehe IEC 65C/783/CDV:2014-09</p> <p>national zuständig: DKE/956</p>
IEC 62657-1	<p>Industrial communication networks – Wireless communication networks – Part 1: Wireless communication requirements and spectrum considerations</p> <p>siehe IEC 65C/792/CD:2014-11</p> <p>national zuständig: DKE/956</p>
IEC 62657-2	<p>Industrial communication networks – Wireless communication networks – Part 2: Coexistence management</p> <p>Revision of IEC 62657-2:2013-08</p> <p>siehe IEC 65C/793/CD:2014-11</p> <p>national zuständig: DKE/K 956</p>
IEC/PAS 62948	<p>Industrial networks – Wireless communication network and communication profiles – WIA-FA</p> <p>siehe IEC 65C/784/PAS:2014-07</p> <p>national zuständig: DKE/K 956</p>
ISO 15118-6	<p>Road vehicles – Vehicle to grid communication interface – Part 6: General information and use-case definition for wireless communication</p> <p>siehe IEC 69/303/CD:2014-07</p> <p>national zuständig: DKE/K 353</p>

IEC 61980-1	Electric vehicle wireless power transfer systems (WPT) – Part 1: General requirements siehe IEC 69/256/CDV:2013-11 national zuständig: DKE/K 353
IEC/TS 61980-2	Electric vehicle wireless power transfer (WPT) systems – Part 2 specific requirements for communication between electric road vehicle (EV) and infrastructure with respect to wireless power transfer (WPT) systems siehe IEC 69/322/CD:2014-10 national zuständig: DKE/K 353
IEC/TS 61980-3	Electric vehicle wireless power transfer (WPT) systems – Part 3 specific requirements for the magnetic field power transfer systems siehe IEC 69/321/CD:2014-10 national zuständig: DKE/K 353
IEC 62827-1	Wireless Power Transfer – Management – Part 1: Common Components siehe IEC 100/2366/CD:2014-06 national zuständig: DKE/K 718
IEC 62827-2	Wireless Power Transfer – Management – Part 2: Multiple devices control management siehe IEC 100/2369/INF:2014-07 national zuständig: DKE/K 718
IEC 62827-3	Wireless Power Transfer – Management – Part 3: Multiple sources control management siehe IEC 100/---/--- national zuständig: DKE/K 718
IEC 62209-1	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz) Revision of IEC 62209-1:2005-02 siehe IEC 106/319/CDV:2014-10 national zuständig: DKE/K 764

- IEC 62209-3 Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 3: Vector probe systems (Frequency range of 100 MHz to 6 GHz)
siehe IEC 106/289/NP:2013-08
national zuständig: DKE/K 764
- IEC/IEEE 62704-1 Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz – 6 GHz – Part 1: General Requirements for using the Finite Difference Time Domain (FDTD) Method for SAR Calculations
siehe IEC 106/276/CD:2013-06
national zuständig: DKE/K 764
- IEC/IEEE 62704-2 Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices – Specific Requirements for Finite Difference Time Domain (FDTD) Modelling of Exposure from Vehicle Mounted Antennas
siehe IEC 106/277/CD:2013-06
national zuständig: DKE/K 764
- IEC/IEEE 62704-3 Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz – 6 GHz – Specific Requirements for using the Finite-Difference Time-Domain (FDTD) Method for SAR Calculations of Mobile Phones
siehe IEC 106/278/CD:2013-06
national zuständig: DKE/K 764
- IEC/IEEE 62704-4 Determining the Peak Spatial Average Specific Absorption Rate (SAR) in the human body from wireless communications devices, 30 MHz – 6 GHz – General requirements for using the Finite-Element Method (FEM) for SAR calculations and specific requirements for modelling vehicle-mounted antennas and personal wireless devices
siehe IEC 106/227/NP:2011-03
national zuständig: DKE/K 764
- IEC 62801 Measurement Method of a Half-Wavelength Voltage for Mach-Zehnder Optical Modulator in Wireless Communication and Broadcasting Systems
siehe IEC 103/120/CDV:2013-08
national zuständig: DKE/K 734

2.2 Internationale Normprojekte bei ISO

- ISO 15118-6 Road vehicles – Vehicle to grid communication interface – Part 6: General information and use-case definition for wireless communication
siehe ISO/CD 15118-6:2014-07
national zuständig: DIN/NAAutomobil – NA 052-00-31-01 GAK

- ISO 15118-7 Road vehicles – Vehicle to grid communication interface – Part 7: Network and application protocol requirements for wireless communication
siehe ISO/AWI 15118-7:2013-01
national zuständig: DIN/NAAutomobil – NA 052-00-31-01 GAK
- ISO 15118-8 Road vehicles – Vehicle to grid communication interface – Part 8: Physical layer and data link layer requirements for wireless communication
siehe ISO/AWI 15118-8:2013-01
national zuständig: DIN/NAAutomobil – NA 052-00-31-01 GAK
- ISO/PAS 19363 Electrically propelled road vehicles – Magnetic field wireless power transfer – Safety and interoperability requirements
siehe ISO/AWI PAS 19363:2013-10
national zuständig: DIN/NAAutomobil – NA 052-01-21 AA
- ISO 20205 Space data and information transfer systems – Spacecraft Onboard Interface Systems – Low Data-Rate Wireless Communications for Spacecraft Monitoring and Control
siehe ISO/DIS 20205:2015-01
national zuständig: DIN/NL – NA 131-06-01 AA

2.3 Internationale Normprojekte bei ISO/IEC JTC 1

- ISO/IEC 14543-3-11 Information technology – Home electronic system (HES) – Part 3-11: Frequency Modulated Wireless Short-Packet (FMWSP) protocol optimised for energy harvesting – Architecture and lower layer protocols
siehe ISO/IEC DIS 14543-3-11:2014-12
national zuständig: DKE/GUK 715.1
- ISO/IEC 27033-6 Information technology – Security techniques – Network security – Part 6: Securing wireless IP network access
siehe ISO/IEC CD 27033-6:2015-01
national zuständig: DIN/NIA – NA 043-01-27-04 AK
- ISO/IEC 29157 Information technology – Telecommunications and information exchange between systems – PHY/MAC specifications for short-range wireless low-rate applications in the ISM band
siehe ISO/IEC FDIS 29157:2014-12
national zuständig: DIN/NIA – NA 043-01-06 AA

- ISO/IEC/IEEE 8802-22 Information technology – Telecommunications and information exchange between systems -- Local and metropolitan area networks – Specific requirements – Part 22: Cognitive Wireless RAN Medium Access Control (MCA) and Physical Layer (PHY) Specifications: Policies and Procedures for Operation in the TV Bands
- siehe ISO/IEC/IEEE FDIS 8802-22:2014-09
- national zuständig: DIN/NIA – NA 043 BR-05 SO
- ISO/IEC 15149-2 Information technology – Telecommunications and information exchange between systems – Magnetic field area network (MFAN) – Part 2: In-band Control Protocol for Wireless Power Transfer
- siehe ISO/IEC PRF 15149-2:2015-01
- national zuständig: DIN/NIA – NA 043-01-06 AA
- ISO/IEC 17821 Information technology – Specification of low power wireless mesh network over channel-hopped TDMA links
- siehe ISO/IEC DIS 17821:2014-01
- national zuständig: DIN/NIA – NA 043-01-06 AA

2.4 Europäische Normprojekte bei CENELEC

Zurzeit sind keine in Bearbeitung befindlichen rein europäischen Projekte bei CENELEC verzeichnet.

2.5 Europäische Normprojekte bei CEN

- EN 16454 Intelligent transport systems – ESafety – ECall end to end conformance testing
- siehe prEN 16454:2014, Revision of CEN/TS 16454:2013
- national zuständig: DIN/NAAutomobil – NA 052-00-71-15 GAK
- EN 1434-3 Heat meters – Part 3: Data exchange and interfaces
- siehe FprEN 1434-3:2014
- national zuständig: DIN/NHRS – NA 041-03-66 AA
- EN 13757-5 rev Communication systems for meters – Part 5: Wireless M-Bus relaying
- siehe FprEN 13757-5:2014
- national zuständig: DIN/NHRS – NA 041-03-66 AA
- EN 16836-1 Communication systems for meters – Wireless mesh networking for meter data exchange – Part 1: Introduction and standardization framework
- siehe prEN 16836-1:2015
- national zuständig: DIN/NHRS – NA 041-03-66 AA

- EN 16836-2 Communication systems for meters – Wireless mesh networking for meter data exchange – Part 2: Networking layer and stack specification
- siehe prEN 16836-2:2015
- national zuständig: DIN/NHRS – NA 041-03-66 AA
- EN 16836-3 Communication systems for meters – Wireless mesh networking for meter data exchange – Part 3: Energy profile specification dedicated application layer
- siehe prEN 16836-3:2015
- national zuständig: DIN/NHRS – NA 041-03-66 AA

2.6 Europäische Normprojekte bei ETSI

- ETSI DEN/EE-0069 Environmental Engineering (EE) – Electrical and electronic household and office equipment – Measurement of networked standby power consumption
- Drafting stage
- ETSI TR 103087 Reconfigurable Radio Systems (RRS) – Security related use cases and threats in Reconfigurable Radio Systems
- siehe Early draft 2014-04
- ETSI DMI/ERM-055 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Technical analysis for wireless chargers – Internal Report – Technical analysis for wireless chargers
- completed 2012-03
- ETSI EN 303 258 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless industrial automation – Radio equipment to be used in the 5,725 GHz to 5,875 GHz frequency range with power levels ranging up to 400 mW – Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- siehe Early draft 2015-02
- ETSI TR 103329 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless industrial automation – Radio equipment to be used in the 5,725 GHz to 5,875 GHz frequency range with power levels ranging up to 400 mW – TR on methods and concepts for a WIA system approach to sharing in the 5.8 GHz band
- Drafting stage
- ETSI EN 300330-1 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 1: Technical characteristics and test methods
- siehe FpEN 300330-1:2014-12

- ETSI EN 300330-2 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 covering the essential requirements of article 3.2 of the R&TTE Directive
- siehe FprEN 300330-2:2014-12
- ETSI EN 303131 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Short Range Devices – Wireless alarms with low duty cycle – Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
- siehe FprEN 303131:2014-10
- ETSI EN 302064-1 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless Video Links (WVL) operating in the 1,3 GHz to 50 GHz frequency band – Part 1: Technical characteristics and methods of measurement
- Drafting stage
- ETSI EN 302064-2 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless Video Links (WVL) operating in the 1,3 GHz to 50 GHz frequency band – Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
- Drafting stage
- ETSI ES 202239 Electromagnetic compatibility and Radio spectrum Matters (ERM) – Wireless digital video links operating above 1,3 GHz – Specification of typical receiver performance parameters for spectrum planning
- Drafting stage
- ETSI TR 103058-2 Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference document (SRdoc) – Technical characteristics for Programme Making and Special Events (PMSE) applications – Part 2: Detailed Application Description and Technical Requirements of Wireless Microphone, In Ear monitoring and Tour guide systems
- siehe Early draft 2012-01
- ETSI TR 103058-3 Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference document (SRdoc) – Technical characteristics for Programme Making and Special Events (PMSE) applications – Part 3: Detailed Application Description and Technical Requirements of Conferencing Systems
- siehe Early draft 2014-07
- ETSI TR 103058-4 Electromagnetic compatibility and Radio spectrum Matters (ERM) – System Reference document (SRdoc) – Technical characteristics for Programme Making and Special Events (PMSE) applications – Part 4: Detailed Application Description and Technical Requirements of Intercom Systems
- siehe Early draft 2014-07
- ETSI MI/BRAN-0020008 Broadband Radio Access Networks (BRAN) – HIPERLAN Type 2 – Investigations and liaisons regarding HIPERLAN/2 spectrum issues
- completed 2003-06

ETSI DTR/SES-00344 Satellite Earth Stations and Systems (SES) – Energy Efficiency of Satellite Network

siehe Stable draft 2015-02

2.7 Nationale Normprojekte (DIN+DKE)

DIN VDE 0825-11 Überwachungsanlagen – Drahtlose Personen-Notsignal-Anlagen für Alleinarbeiter – Teil 11: Geräte- und Prüfanforderungen für Personen-Notsignal-Anlagen unter Nutzung öffentlicher Telekommunikationsnetze

Neues Normvorhaben 2014-12 zur Überarbeitung der bestehenden Vornorm

zuständig: DKE/UK 713.1

DIN VDE 0833-3 Gefahrenmeldeanlagen für Brand, Einbruch und Überfall – Teil 3: Festlegungen für Einbruch- und Überfallmeldeanlagen

siehe Entwurf E DIN VDE 0833-3/A1 (VDE 0833-3/A1):2012-11

zuständig: DKE/UK 713.1

DIN VDE 0873-1 Maßnahmen gegen Funkstörungen durch Anlagen der Elektrizitätsversorgung – Funkstörungen durch Anlagen ab 10 kV Nennspannung

siehe Entwurf E DIN VDE 0873-1 (VDE 0873-1):2012-03

zuständig: DKE/UK 767.12

DIN VDE 0130-310 Gasgeräte – Brennstoffzellen-Gasheizgeräte – Brennstoffzellen-Gasheizgerät mit einer Nennwärmebelastung kleiner oder gleich 70 kW

siehe Entwurf E DIN VDE 0130-310 (VDE 0130-310):2011-08

zuständig: DKE/K 384

Frankfurt am Main, 19.02.2015
STD/vl