

Guide for

Navigating CE Mark & RED Compliance

Navigating CE Mark and RED Compliance: A Guide for Radio Equipment Manufacturers

The CE Mark is required for all devices sold in the European Union (EU). The CE Mark places the responsibility on manufacturers to ensure their products comply with all relevant EU legislation, including conducting conformity assessments, maintaining technical documentation, and ensuring ongoing compliance. The CE Mark is crucial for ensuring product safety, facilitating market access, and building consumer trust.

Radio equipment must bear the CE Mark to be sold in the EU. The Radio Equipment Directive (RED) 2014/53/EU applies to all radio equipment placed on the market in the European Economic Area (EEA). This includes any electrical or electronic product that intentionally emits and/or receives radio waves for the purpose of radio communication and/or radio determination.

Types of Equipment: The RED covers a wide range of radio equipment, including but not limited to mobile phones, tablets, wireless routers, Bluetooth devices, radio transmitters, and receivers. It also includes equipment that uses radio technology for communication over the internet, such as IoT devices, wearable devices, and connected industrial devices.



Essential Requirements: The directive sets essential requirements for safety and health, electromagnetic compatibility, and the efficient use of the radio spectrum. It also includes provisions for the protection of privacy, personal data, and against fraud, as well as ensuring interoperability and access to emergency services. The directives below outline several key areas of testing required for radio equipment. Note that other directives may apply depending on device type and use case.

Electrical Safety (Low Voltage Directive): Products must be tested for electrical safety to ensure they do not pose a risk of electric shock, fire, or other hazards. This is covered under the Low Voltage Directive (LVD).

Electromagnetic Compatibility (EMC Directive): Products must be tested for electromagnetic emissions and immunity to ensure they do not interfere with other electronic devices and can operate correctly in their intended environment. This is covered under the EMC Directive.



Radio Frequency (RF) Performance (Radio Equipment Directive): For products that use radio frequencies, such as wireless and communication devices, testing is required to ensure they operate within the allocated spectrum and do not cause harmful interference. This is covered under the Radio Equipment Directive (RED).

Environmental Protection (RoHS Directive): Products must meet environmental protection requirements, such as restrictions on hazardous substances (RoHS) and waste management (WEEE).

Market Access: To be placed on the market in the EU, radio equipment must comply with the RED. This involves conducting a conformity assessment, compiling technical documentation, and affixing the CE Mark to the product.

Cybersecurity Requirements: From August 1, 2025, all wireless devices placed on the EU market must also comply with the RED's cybersecurity requirements. These requirements aim to increase the level of cybersecurity, personal data protection, and privacy for radio equipment.

Expert Guidance for Navigating RED Compliance

Understanding and navigating certification requirements is a very complex process. With the right guidance and preparation, device manufacturers can achieve compliance and unlock new market opportunities. For more detailed information and assistance, please reach out to the certification experts at Eurofins Labs.

REDCA Technical Guidance Note 01

The REDCA Technical Guidance Note 01 (TGN01) provides detailed guidance on the compliance requirements for radio equipment, often referred to as radio modules, and the final radio equipment products that integrate these modules under the Radio Equipment Directive (RED) 2014/53/EU.

Safety Standard

Summary of IEC 62368-1:2023 (Edition 4)

Title: Audio/video, information and communication technology equipment – Part 1: Safety requirements.

Scope: This standard specifies the safety requirements for electrical and electronic equipment within the fields of audio, video, information, and communication technology. It aims to reduce the risks of fire, electrical shocks, and other hazards.



Common ETSI EN Radio Standards

Summary of ETSI EN 301 489-1 V2.2.3

Title: ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.

Scope: This standard specifies the common technical requirements for EMC for radio equipment and services. It ensures that radio equipment operates without causing harmful interference and is immune to electromagnetic disturbances.

Summary of ETSI EN 301 908-1 V15.1.1

Title: IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements.

Scope: This standard specifies the common technical requirements for access to the radio spectrum for IMT cellular networks, ensuring that equipment operates effectively and efficiently within the allocated spectrum.

Summary of ETSI EN 301 511 V12.5.1

Title: Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU.

Scope: This standard specifies the technical requirements for GSM mobile stations to ensure they meet the essential requirements of the Radio Equipment Directive (RED) 2014/53/EU.

Summary of ETSI EN 300 328 V2.2.2

Title: Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques.

Scope: This standard specifies the technical requirements for wideband data transmission equipment to ensure they meet the essential requirements of the Radio Equipment Directive (RED) 2014/53/EU.

Summary of ETSI EN 301 893 V2.2.1

Title: 5 GHz RLAN; Harmonised Standard for access to radio spectrum.

Scope: This standard specifies the technical requirements for 5 GHz Radio Local Area Networks (RLANs) to ensure they meet the essential requirements of the Radio Equipment Directive (RED) 2014/53/EU.

Summary of ETSI EN 300 330 V2.1.1

Title: 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.

Scope: This standard specifies the technical characteristics and methods of measurement for SRDs to ensure they meet the essential requirements of the Radio Equipment Directive (RED) 2014/53/EU.

Common ETSI EN Radio Standards (Con't)

Summary of ETSI EN 300 220 V3.2.1

Title: Short Range Devices (SRD) operating in the frequency range 25 MHz to 1,000 MHz; Part 2: Harmonised Standard for access to radio spectrum for non-specific radio equipment.

Scope: This standard specifies the technical characteristics and methods of measurement for non-specific Short Range Devices (SRDs) to ensure they meet the essential requirements of the Radio Equipment Directive (RED) 2014/53/EU.

Summary of CENELEC EN 55032:2015/A1:2020

Title: Electromagnetic compatibility of multimedia equipment – Emission requirements.

Scope: This standard applies to multimedia equipment (MME) with a rated r.m.s. AC or DC supply voltage not exceeding 600 V. It includes equipment intended primarily for professional use and specifies emission requirements to protect the radio spectrum.

Summary of CENELEC EN 55035:2017

Title: Electromagnetic compatibility of multimedia equipment – Immunity requirements.

Scope: This standard applies to multimedia equipment (MME) with a rated AC or DC supply voltage not exceeding 600 V. It includes equipment intended primarily for professional use and specifies immunity requirements to ensure the equipment operates as intended in its environment.

Partner with Eurofins for End-to-End CE and RED Compliance

Achieving CE Marking and RED compliance is essential for accessing the European market—but it doesn't have to be overwhelming. With decades of experience, global accreditation, and a deep understanding of evolving EU regulations, Eurofins MET Labs is your trusted partner in navigating the complexities of radio equipment certification. From technical assessments and documentation to ongoing support and guidance, we streamline the process so you can focus on innovation. For general inquiries, please contact us at marketing@metlabs.com. If you're ready to start on your path to seamless market access, request a quote at www.metlabs.com/get-a-quote/.