



Newsletter

2025 Q1

Digital & Product Solutions
Business Line **EMC & RF**

innovating safety & security



歐洲 (歐盟 27 國和英國)

ETSI RED 工作計劃新標準版本更新

ETSI 不斷發展 EMC/RF 測試標準，下表總結了 2024 年第 4 季度最常見測試標準的最新更新：

Test Standard	Title	Comments
Draft EN 300 220-2 V3.1.1_0.0.24	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz with power levels ranging up to 500 mW e.r.p. Part 2: Harmonised Standard for access to radio spectrum for non specific radio equipment	Final Draft. European Commission assessment received and comments already addressed. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required. New version includes the following updates with regard to v3.2.1: - Separation of OBW requirement from frequency stability (drift) clauses. - Clarifications in Spectrum mask at permitted frequency band edges. - Addition of receiver parameters according to ETSI guide EG 203336 v1.2.1. - Addition of tests for timing compliance of equipment using polite spectrum access.
Draft EN 300 422-1 V2.3.1_0.0.2	Wireless Microphones Audio PMSE up to 3 GHz Part 1: Audio PMSE Equipment up to 3 GHz	Early Draft. Test Standard development work is just starting.
Draft ETSI EN 300 440-1 V3.1.1_0.0.7	Short Range Devices (SRD) operating in 1 GHz to 40 GHz Part 1: Radiocommunication equipment in the frequency ranges 2,4 GHz to 2,4835 GHz and 5,725 GHz to 5,875 GHz	Early Draft. Test Standard development work is progressing.



Draft EN 300 440-2 V3.1.1_0.0.23	Short Range Devices (SRD) Part 2: Radiodetermination equipment for location tracking applications operating in the frequency range 2,4 GHz to 2,4835 GHz	Stable Draft. Test Standard development work is progressing.
EN 300 487 V2.2.1	Satellite Earth Stations and Systems (SES) Receive-Only Mobile Earth Stations (ROMES) providing data communications operating in the 1,5 GHz frequency band	Already published by ETSI and to be delivered to European Commission for final assessment. New version includes changes in receiver blocking characteristics requirement.
Draft EN 301 406-1 V3.1.17	Digital Enhanced Cordless Telecommunications (DECT) Part 1: DECT, DECT Evolution and DECT ULE	Stable Draft. Test Standard development work is progressing.
Draft EN 301 783 V0.0.12	Commercially available amateur radio equipment	Early Draft. Test Standard development work is progressing.



EN 301 893 V2.2.1 5 GHz WAS/RLAN

Already published by ETSI and delivered to European Commission for final assessment.

Waiting for its publication as Harmonised Standard in OJEU.

New version includes the following updates:

- Add technical requirements and methods of measurement for U-NII-3 band (5.725 – 5.850 MHz).
 - Add Adjacent Channel Selectivity Test Case.
 - Add User Access Restrictions Test Case.
 - Update Transmitter Unwanted Emissions to accommodate flexible use of spectrum for multi-channel operation and minimize interference.
 - Update Energy Detection Threshold (EDT) requirements in Adaptivity Test Case for Frame Based Equipment (FBE) and Load Based Equipment (LBE).
 - Remove the possibility of compliance by declaration for the Channel Access Mechanism and Maximum Channel Occupancy Time (COT).
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EN 301 908-13 V13.3.1	IMT cellular networks Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)	<p>Already published by ETSI and delivered to European Commission for final assessment.</p> <p>Waiting for its publication as Harmonised Standard in OJEU.</p> <p>New version includes the following updates:</p> <ul style="list-style-type: none">- Add Bands 41, 72, 87 and 88.- Add LTE Carrier Aggregation CA_8-41, CA_41-41, CA_41-42, CA_41-46 and CA_3-41-42 bands combinations.- Include additional spurious emissions limits for frequency range 470 to 694 MHz to protect Broadband Public Protection and Disaster Relief (BB-PPDR) and Digital Terrestrial Television (DTT) operations.- Add requirements for Transmitter adjacent channel leakage power ratio for intraband non-contiguous Carrier Aggregation.
Draft EN 301 908-14 V17.1.0	IMT cellular networks Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)	Draft. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required.
Draft EN 301 908-18 V17.1.0	IMT cellular networks Part 18: NR, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS)	Draft. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required.
EN 301 908-25 V15.1.1	IMT cellular networks Part 25: New Radio (NR) User Equipment (UE)	<p>Already published by ETSI and delivered to European Commission for final assessment.</p> <p>Waiting for its publication as Harmonised Standard in OJEU.</p>



EN 302 064 V2.2.1	Wireless Digital Video Links operating in the 1,3 GHz to 50 GHz frequency band	<p>Already published by ETSI and delivered to European Commission for final assessment.</p> <p>Waiting for its publication as Harmonised Standard in OJEU.</p> <p>New version includes the following updates:</p> <ul style="list-style-type: none">- Add a new transmitter category with enhanced ACPR performance.- Introduce channel occupancy test to limit channel bandwidth.
Draft EN 302 065-2-5 V1.1.1_0.0.4	<p>Short Range Devices (SRD) using Ultra Wide Band technology (UWB)</p> <p>Part 2: Ultra Wide Band location tracking devices</p> <p>Sub-part 5: Requirements for enhanced indoor devices within 6,0 GHz to 8,5 GHz</p>	Early Draft. Test Standard development work is just starting.
Draft EN 302 065-3-1 V3.2.0	<p>Short Range Devices (SRD) using Ultra Wide Band technology (UWB)</p> <p>Part 3: UWB devices installed in motor and railway vehicles</p> <p>Sub-part 1: Requirements for UWB devices for vehicular access systems within 3,8 GHz to 4,2 GHz or 6 GHz to 8,5 GHz</p>	Final Draft. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required.
Draft EN 302 065-3-3 V1.1.1_0.1.3	<p>Short Range Devices (SRD) using Ultra Wide Band technology (UWB)</p> <p>Part 3: UWB devices installed in road and rail vehicles</p> <p>Sub-part 3: Requirements for UWB radiodetermination applications operating within 6,0 GHz to 8,5 GHz</p>	Stable Draft. Test Standard development work is progressing.



Draft EN 302 065-4-1 V2.1.1	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 4: Material Sensing devices Sub-part 1: Building material analysis below 10,6 GHz	Draft. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required.
Draft EN 302 065-4-4 V2.1.1_0.1.6	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 4: Material Sensing devices	Draft. Ready to initiate the Working Group approval process.
Draft EN 302 372 V3.1.1_0.1.2	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Tank Level Probing Radar (TLPR) equipment operating in the frequency ranges 4,5 GHz to 7 GHz, 8,5 GHz to 10,6 GHz, 24,05 GHz to 27 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz	Stable Draft. Ready for first European Commission assessment.
Draft EN 302 729-2 V3.1.1_0.1.0	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 2: Level Probing Radar (LPR) equipment operating in the frequency range 75 GHz to 85 GHz for tilted downward installation	Stable Draft. Test Standard development work is progressing.
Draft EN 302 208 V3.5.1_V0.0.2	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W	Draft. Ready to initiate the Working Group approval process.
Draft EN 302 217-2 V3.4.1_0.0.8	Fixed Radio Systems Characteristics and requirements for point-to-point equipment and antennas Part 2: Digital systems operating in frequency bands from 1 GHz to 174,8 GHz	Stable Draft. European Commission first assessment completed and currently addressing the comments.
Draft EN 302 480 V0.0.9	Mobile Communication On Board Aircraft (MCOBA) systems	Stable Draft. European Commission first assessment received. Comments addressed and under Working Group approval process.



Draft EN 302 571 V2.1.1_0.0.27	Intelligent Transport Systems (ITS) Radiocommunications equipment operating in the 5 855 MHz to 5 925 MHz frequency band	Stable Draft. European Commission first assessment completed and currently addressing the comments.
Draft EN 303 659 V0.0.20	Short Range Devices (SRD) in Data Networks Radio equipment to be used in the frequency ranges 865 MHz to 868 MHz and 915 MHz to 919,4 MHz	Draft. Approved by Technical Body. Under ETSI Deliverable approval process. Once it is completed, the final assessment form European Commission is required.
Draft EN 303 687 V1.1.6	6 GHz WAS/RLAN	Early Draft. Test Standard development work is progressing.
Draft EN 303 851 V0.0.9	Radio Frequency Identification Equipment operating in the band 2 446 MHz to 2 454 MHz with power levels up to a maximum of 500 mW e.i.r.p. and up to a maximum of 4 W e.i.r.p.	Draft. Approved by Technical Body. Ready to initiate ETSI Deliverable approval process.
Draft EN 303 940-1 V1.1.1_0.0.9	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 1: Millimeter Wave Security Scanners operating in 60-82 GHz	Early Draft. Test Standard development work is progressing.
EN 303 978 V2.2.1	Satellite Earth Stations and Systems (SES) Earth Stations on Mobile Platforms (ESOMP) communicating with satellites in geostationary orbit, operating in the 27,5 GHz to 30,0 GHz and 17,3 GHz to 20,2 GHz frequency bands	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU. New version includes modification in Off-axis EIRP emission density within the band Test Case.



ETSI EN 301 489-28 V2.1.1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 28: Specific conditions for wireless digital video links	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU. New version includes the following updates with regard to v1.1.1 (former R&TTE harmonised standard): <ul style="list-style-type: none">- Alignment with EN 301 489-1 V2.2.3.- New methods to determine the QEF threshold.- Removing manufacturer defined test conditions.- Added emission requirements for signal and control ports.- Excluding emission requirement below 9 kHz.
EN 301 489-52 V1.3.1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 52: Specific conditions for Cellular Communication User Equipment (UE) radio and ancillary equipment	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU. New version includes in the scope 5G FR2.
EN 301 843-2 V2.3.1_0.0.3	ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services Part 2: Specific conditions for VHF radiotelephone transmitters and receivers	Early Draft. Test Standard development work is just starting.
Draft EN 301 843-8 V1.1.1_0.0.5	ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services Part 8: Specific conditions for radio beacons and locating devices	Stable Draft. Test Standard development work is progressing.



ETSI 已發布無線電設備風險評估指南

2024 年 10 月，ETSI 發布了一份技術報告 (ETSI TR 103 879 V1.1.1)，提供了無線電設備指令 (RED) 第 3.1(b) 條 (電磁相容性) 和第 3.2 條 (射頻) 所需的風險評估指南，這是符合性評估的一部分。

該文件旨在幫助製造商確定某標準是否為列於《歐盟官方公報》(OJEU) 中的協調標準，以及在製造商未完全應用協調標準時需要採取的額外措施。

文件還包括一個風險評估範本示例，展示風險評估的可能形式。

Additional Information:

- ETSI TR 103 879 V1.1.1:
https://www.etsi.org/deliver/etsi_tr/103800_103899/103879/01.01.01_60/tr_103879v010101p.pdf

歐洲委員會關於在 6 GHz 低頻段內和諧使用無線電頻譜的實施決定，適用於非常低功率 (VLP) WAS/RLAN 設備

2021 年 6 月，歐洲委員會發布了 2021 年 6 月 17 日的委員會實施決定 (EU) 2021/1067，關於在 5.945 – 6.425 MHz 頻段內和諧使用無線電頻譜以實施無線接入系統 (WAS/RLAN) 設備。該決定要求在 2024 年底前進行審查，考慮到關於 VLP WAS/RLAN 設備在 5.935 MHz 以下頻段的最大平均等效全向輻射功率 (e.i.r.p.) 密度限制的額外研究和測量。

2024 年 12 月，歐洲委員會發布了委員會實施決定 (EU) 2024/3157，修訂了之前的決定，將非常低功率 (VLP) 設備的限制從 -45 dBm/MHz 更改為 -37 dBm/MHz 的截止日期延至 2025 年 12 月 31 日。這一決定將根據 CEPT 對 2021 年 4 月 21 日委員會授權的回應作出。

Additional Information:

- Commission Implementing Decision (EU) 2021/1067 of 17 June 2021: https://eur-lex.europa.eu/eli/dec_impl/2021/1067/oj/eng
- Commission Implementing Decision (EU) 2024/3157 of 17 December 2024: https://eur-lex.europa.eu/eli/dec_impl/2024/3157/oj/eng



北美 (美國和加拿大)

FCC KDB 更新

2024 年第 4 季度發布/更新的主要 KDB:

KDB	Status	Question	Comments
388624	Update	What devices require FCC guidance prior to a TCB issuing a grant of equipment authorization, and what are the procedures to obtain this guidance?	PAG List updated: Removed AGGREG (Carrier Aggregation).
996369	Update	What is the FCC guidance for equipment authorization of transmitter module devices, and equipment that incorporates transmitter modules?	Editorial changes only. No changes have been made to affect or change technical interpretations.
987594	Update	What are the requirements for obtaining a Certification for U-NII 6 GHz devices operating in the 5.925-7.125 GHz band under Part 15, Subpart E?	Updated to add guidance for new unlicensed rules by permitting very low power (VLP) devices under equipment class 6VL in the U-NII-5 (5,925 – 6,425 GHz) and U-NII-7 (6,525 – 6,875 GHz) portions of the 6 GHz band.
935210	Update	What is the Commission guidance for the evaluation of Signal Boosters?	Boosters cannot be certified to Part 96 as an End User Device (EUD).
285076	Update	What are the equipment authorization requirements for hearing aid compatibility of mobile handsets?	Interim process to establish 5G sub 6 VoLTE or OTT voice calls over 5G FR1 air interfaces is no longer permitted.
206256	Update	What procedures should be followed for approval of a wireless microphone?	Added requirements for Wireless Multichannel Audio Systems (WMAS). Update references to updated to ETSI EN 300 422-1 v2.2.1.



美國聯邦通信委員會 (FCC) 最終確定了智能交通系統向 C-V2X 技術過渡的監管規則，適用於 5.9 GHz 頻段。

2024 年 11 月 21 日，FCC 發布了第二份報告和命令，採納了 FCC 規則中的 C-V2X 技術參數，包括功率、發射限制和消息優先級。新規則將於 2025 年 2 月 11 日生效。自該日期起，將可以在無需豁免的情況下測試和認證 C-V2X 設備。此外，新規則允許已經根據 C-V2X 豁免授權的設備繼續銷售和運行，並提供了逐步淘汰現有 DSRC 技術的時間表。路側單元 (RSU) 屬於 FCC 第 90 部分，而車載單元 (OBU) 屬於 FCC 第 95 部分。

Additional Information:

- FCC Announcement: <https://docs.fcc.gov/public/attachments/DOC-407683A1.pdf>
- New FCC Rules for Part 90 and Part 95: <https://www.govinfo.gov/content/pkg/FR-2024-12-13/pdf/2024-28980.pdf>

FCC 開放整個 6 GHz 頻段供非常低功率 (VLP) 設備運行

2024 年 12 月 11 日，FCC 採納了新規則，允許非常低功率 (VLP) 類別的無線資訊傳輸設備在 6 GHz 頻段的 U-NII-6 (6,425 – 6,525 GHz) 和 U-NII-8 (6,875 – 7,125 GHz) 部分以與最近批准的 U-NII-5 (5,925 – 6,425 GHz) 和 U-NII-7 (6,525 – 6,875 GHz) 頻段相同的功率水平和技術/操作保護下運行。

VLP 設備在運行位置上沒有任何限制，也不需要 AFC 系統的控制下運行。為確保低干擾風險，這些設備將需要使用基於競爭的協議(contention-based protocol)並實施發射功率控制(transmit power control)，同時禁止固定於戶外運行。

Additional Information:

- FCC Announcement: <https://docs.fcc.gov/public/attachments/DOC-408129A1.pdf>
- Third Report and Order: <https://docs.fcc.gov/public/attachments/FCC-24-125A1.pdf>

美國聯邦通訊委員會 (FCC) 要求所有手機必須與助聽器兼容

2024 年 10 月 17 日，美國聯邦通信委員會 (FCC) 採納了新規則，要求所有手機必須與助聽器兼容 12。新規則還修訂了標籤和網站發布要求，以確保消費者能夠獲得購買所需的資訊。

此外，FCC 還建立了藍牙耦合要求，確保手機與助聽器 (包括非處方助聽器) 之間的更廣泛連接，鼓勵手機製造商從專有藍牙耦合標準轉向通用藍牙耦合標準。

Additional Information:



- FCC Announcement: <https://docs.fcc.gov/public/attachments/DOC-406697A1.pdf>
- New Rules for Part 20: <https://www.govinfo.gov/content/pkg/FR-2024-11-13/pdf/2024-25088.pdf>

FCC 提議對一家中國製造商處以超過 70 萬美元的罰款，原因是其提供了與美國指定代理相關的虛假消息

FCC 提議對中國智慧門鈴製造商 Eken Group Ltd. 處以 734,872 美元的罰款，原因是該公司明顯違反了 FCC 規則，這些規則要求公司指定一個位於美國的代理商。

在一則報導指稱 Eken 的智慧門鈴存在重大隱私和安全漏洞後，FCC 的執法局開始對該公司進行調查，並發現該公司於 2024 年 3 月 4 日提交的位於科羅拉多州科羅拉多斯普林斯的代理地址實際上是一個自 2019 年以來就未使用的電子信箱。

Additional Information:

- FCC Announcement: <https://docs.fcc.gov/public/attachments/DOC-407668A1.pdf>
- FCC Notice: <https://docs.fcc.gov/public/attachments/FCC-24-122A1.pdf>



ISED 更新

ISED 無線電標準 2024 年第四季度更新:

Test Standard	Status	Title	Comments
RSS-248 Issue 3	Update	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band	<p>New standard version has a 6 months transition period.</p> <p>Main update has been to include the Very Low Power (VLP) device equipment class:</p> <ul style="list-style-type: none">- Frequency Range: 5.925-7.125 MHz.- Power Limits: Max E.I.R.P. spectral density -5 dBm/MHz, Max E.I.R.P. 14 dBm.- Devices shall not employ fixed outdoor infrastructure.- Devices shall prioritize operation on frequencies above 6.105 MHz to 7.125 MHz before operating on frequencies from 5.925 MHz to 6.105 MHz.- Device might have peer-to-peer connection capability.
RSS-222 Issue 4	Update	White Space Devices (WSDs)	<p>New standard version has a 6 months transition period.</p> <p>Main updates are:</p> <ul style="list-style-type: none">- Add a new class of white space devices (WSDs) with less stringent first-adjacent channel unwanted emission limits.- Allow the operation of mobile WSDs on channels 3 and 4 based on the Decision on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment.

ISED main General Notices published in Q4/2024:

Notice	Description	Comments
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[Notice 2024-DRS0014](#)

Additional guidance on nerve stimulation compliance assessment using curve-fitting techniques

Notice clarifies ISED's expectations regarding nerve stimulation compliance assessment where curve-fitting techniques are being used in accordance with section 5.3.1 of RSS-102.NS.MEAS or 7.1.1 of SPR-002.

ISED will accept curve-fitting techniques, without the need to submit an enquiry, if it includes all the information listed in this notice. Main information required is:

- Complete description of the coils.
- List of test configurations assessed.
- Summary of the exposure ratio results obtained for each assessment required as per RSS-102.NS.MEAS.
- Time-domain plots demonstrating the duty cycle for all test configurations.
- Maximum Field Strength and Accurate Measurements.
- Complete analysis of the regression models and comparison table.
- Photographs displaying the full test set-up.

標準制定組織 (SDO)

國際電工委員會 (IEC)

2024 年第四季度發布的主要與電磁相容性 (EMC) /射頻 (RF) 相關的 IEC 出版物：

Publication	Scope
CISPR PAS 39:2024	Electromagnetic compatibility (EMC) - Conducted emission requirements on the low voltage AC mains port in the frequency range 9 kHz to 150 kHz for equipment intended to operate in residential environments
CISPR TR 16-4-6:2024	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-6: Uncertainties, statistics and limit modelling – Statistics on radio frequency interference (RFI) and verification by measurements in the field
CISPR TR 31:2024	Description of the radio services database



Publication	Scope
IEC PAS 61980-5:2024	Electric vehicle wireless power transfer (WPT) systems - Part 5: Interoperability and safety of dynamic wireless power transfer (D-WPT) for electric vehicles
IEC TR 63424-1:2024	Validation of dynamic power control and exposure time-averaging algorithms - Part 1: Cellular network implementations for SAR at frequencies up to 6 GHz
IEC 61000-4-2:2024 PRV	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test
IEC 61000-4-41:2024	Electromagnetic compatibility (EMC) - Part 4-41: Testing and measurement techniques - Broadband radiated immunity tests
IEC 60601-2-34:2024	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment
IEC 60601-2-39:2024	Medical electrical equipment - Part 2-39: Particular requirements for the basic safety and essential performance of peritoneal dialysis equipment
IEC 60601-2-40:2024 RLV	Medical electrical equipment - Part 2-40: Particular requirements for the basic safety and essential performance of electromyographs and evoked response equipment
IEC 60670-1:2024 RLV	Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 1: General requirements
IEC 60670-21:2024 RLV	Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 21: Particular requirements for boxes and enclosures with provision for suspension means
IEC 60670-22:2024 RLV	Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 22: Particular requirements for connecting boxes and enclosures
IEC 60670-24:2024 EXV	Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 24: Particular requirements for enclosures for housing protective devices and other power dissipating electrical equipment
IEC 60947-2:2024 RLV	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers
IEC 60947-4-2:2020+AMD1:2024 CSV	Low-voltage switchgear and controlgear - Part 4-2: Contactors and motor-starters - Semiconductor motor controllers, starters and soft-starters



Publication	Scope
IEC 61008-1:2024	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1: General rules
IEC 61008-2-1:2024	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 2-1: RCCBs according to classification 4.1.1
IEC 61009-1:2024	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1: General rules
IEC 61009-2-2:2024	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 2-2: RCBOs according to classification 4.1.2, 4.1.3, 4.1.4, 4.1.5 and 4.1.6
IEC 61557-1:2019+AMD1:2024 CSV	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements
IEC 61643-01:2024	Low-voltage surge protective devices - Part 01: General Requirements and test methods
IEC 63391:2024	Active millimetre-wave systems for security screening of humans - General requirements
IEC TS 62271-316:2024 EXV	High-voltage switchgear and controlgear - Part 316: Direct current by-pass switches and paralleling switches

Additional Information:

- IEC Standards Search: <https://webstore.iec.ch/en/products/>

歐洲電子技術標準委員會 (CEN-CENELEC)

2024 年第四季度發布的主要與電磁相容性 (EMC) /射頻 (RF) 相關的 CEN-CENELEC 出版物：

Publication	Scope
EN IEC 60601-2-34:2024	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment



Publication	Scope
EN IEC 60601-2-37:2024	Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
EN IEC 80601-2-49:2019/A1:2024	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitors
EN 17860-5:2024	Carrier cycles - Part 5: Electrical aspects
EN 50728:2024	Railway applications - Rolling stock - Testing for electromagnetic compatibility with track circuits
EN IEC 60688:2024	Electrical measuring transducers for converting AC and DC electrical quantities to analogue or digital signals
EN IEC 62052-31:2024	Electricity metering equipment - General requirements, tests and test conditions - Part 31: Product safety requirements and tests
EN IEC 63404:2024	Switchgear and controlgear and their assemblies for low voltage - Integration of radiocommunication device above 380 MHz into an equipment
EN IEC 62974-1:2024	Monitoring and measuring systems used for data collection, aggregation and analysis - Part 1: Device requirements
EN IEC 62974-1:2024	Monitoring and measuring systems used for data collection, aggregation and analysis - Part 1: Device requirements
EN IEC 60947-4-2:2023/A1:2024	Low-voltage switchgear and controlgear - Part 4-2: Contactors and motor-starters - Semiconductor motor controllers, starters and soft-starters
EN IEC 60947-4-3:2024	Low-voltage switchgear and controlgear - Part 4-3: Contactors and motor-starters - Semiconductor controllers and semiconductor contactors for non-motor loads
EN IEC 60947-9-2:2024	Low-voltage switchgear and controlgear - Part 9-2: Active arc-fault mitigation systems - Optical-based internal arc-detection and mitigation devices
EN IEC 61439-3:2024	Low-voltage switchgear and controlgear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO)



Publication	Scope
EN IEC 61557-13:2024	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 13: Hand-held and hand-manipulated current clamps and sensors for measurement of leakage currents in electrical distribution systems
EN IEC 61557-14:2024	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 14: Equipment for testing the safety of electrical equipment of machinery
EN IEC 61557-16:2024	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 16: Equipment for testing the effectiveness of the protective measures of electrical equipment and/or medical electrical equipment
EN IEC 61557-1:2021/A1:2024	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements
EN IEC 61812-1:2024	Time relays and coupling relays for industrial and residential use - Part 1: Requirements and tests
EN IEC 62314:2024	Solid-state relays - Safety requirements

Additional Information:

- CEN-CENELEC Standards Search: <https://standards.cenelec.eu/dyn/www/f?p=CEN:105::RESET:::>



國際標準化組織 (ISO)

2024 年第四季度發布的主要與電磁相容性 (EMC) /射頻 (RF) 相關的 ISO 出版物：

Publication	Scope
ISO 21498-2:2024	Electrically propelled road vehicles - Electrical specifications and tests for voltage class B systems and components Part 2: Electrical tests for components
ISO 23551-1:2024	Safety and control devices for gas burners and gas-burning appliances Particular requirements Part 1: Automatic and semi-automatic shut-off valves
ISO 23551-11:2024	Safety and control devices for gas burners and gas-burning appliances Particular requirements Part 11: Automatic and semi-automatic shut-off valves for operating pressure of above 500 kPa up to and including 6 300 kPa
ISO 19085-12:2024	Woodworking machines - Safety Part 12: Tenoning-profiling machines

Additional Information:

- ISO Standards Search: <https://www.iso.org/advanced-search/x/>

CTIA – 無線通信協會

2024 年第四季度發布的主要與空中 (OTA) 性能相關的 CTIA 出版物：

Publication	Scope
CTIA 01.01	Test Scope, Requirements, and Applicability v6.0.4 (December 2024)
CTIA 01.20	Test Methodology, SISO, Anechoic Chamber v6.0.3 (December 2024)
CTIA 01.40	Test Methodology, MIMO, Static Channel Model, Multi-Probe Anechoic Chamber v6.0.1 (December 2024)
CTIA 01.50	Wireless Technology, 3GPP Radio Access Technologies v6.0.3 (December 2024)
CTIA 01.51	Wireless Technology, Location Based Technologies v6.0.4 (December 2024)
CTIA 01.70	Measurement Uncertainty v6.0.3 (December 2024)
CTIA 01.73	Supporting Procedures v6.0.4 (December 2024)



Publication	Scope
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Wi-Fi CWG	Test Plan for RF Performance Evaluation of Wi-Fi® Mobile Converged Devices v6.0.1 (November 2024)
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Additional Information:

- CTIA Test Plans: <https://ctiacertification.org/test-plans/>