



Newsletter

July 2024

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 正在不斷發展 EMC/RF 測試標準，下表總結了 2024 年第 2 季度最常見測試標準的最新更新：

Test Standard	Title	Comments
Draft EN 300 220-2 V3.2.2	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. First European Commission assessment completed and comments addressed. Public Enquiry completed and addressing comments received. 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 300 440-2 V3.1.1_V0.0.14	Short Range Devices (SRD) Radiodetermination equipment for location tracking applications operating in the frequency range 1 GHz to 40 GHz	Early Draft. Test Standard development work is progressing.
EN 301 908-3 V15.1.1	IMT cellular networks Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS)	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU.
Draft EN 301 908-13 V13.3.1_0.0.12	IMT cellular networks Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)	Final Draft. First European Commission assessment completed and comments addressed. Under Technical Body Approval Process.
Draft EN 301 908-14 V17.1.1_0.0.11	IMT cellular networks Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)	Stable Draft. Ready to send to European Commission for first assessment.



Draft EN 301 908-18 V17.1.1_15.0.8	IMT cellular networks Part 18: NR, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS)	Stable Draft. Ready to send to European Commission for first assessment.
Draft EN 301 406-1 V3.1.9	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 V0.0.7	Commercially available amateur radio equipment	Early Draft. Test Standard development work is progressing.
Draft EN 302 571 V2.1.1_0.0.25	Intelligent Transport Systems (ITS) Radiocommunications equipment operating in the 5 855 MHz to 5 925 MHz frequency band	Stable Draft. First European Commission assessment completed and currently addressing the comments.
Draft EN 302 064 V0.0.17	Wireless Digital Video Links operating in the 1,3 GHz to 50 GHz frequency band	Final Draft. First European Commission assessment completed and comments addressed. Under Technical Body Approval Process.
Draft EN 302 065-2-5 V1.1.1_0.0.2	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 2: Ultra Wide Band location tracking devices Sub-part 5: Requirements for enhanced indoor devices within 6,0GHz to 8,5GHz	Early Draft. Test Standard development work is just starting.
Draft EN 302 065-3-1 V3.1.0_0.2.11	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 3: UWB devices installed in motor and railway vehicles 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	Draft review after Public Enquiry. Under Technical Body Approval Process.
Draft EN 302 065-3-3 V1.1.1_0.0.6	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 3: UWB devices installed in road and rail vehicles Sub-part 3: Requirements for UWB radiodetermination applications operating within 6,0 GHz to 8,5 GHz	Early Draft. Test Standard development work is progressing.



Draft EN 302 065-4-1 V2.1.1_0.3.1	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 review after Public Enquiry. Under Technical Body Approval Process.
Draft EN 302 372 V3.1.1_0.0.8	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. Test Standard development work is progressing.
Draft EN 302 217-2 V3.4.1_0.0.4	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. Ready for first European Commission assessment.
Draft EN 302 729-1 V0.3.0	Short Range Devices (SRD) using Ultra Wide Band technology (UWB) Part 1: Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz for strictly vertical downward installation	Final Draft. First European Commission assessment completed and comments addressed. Under Working Group Approval Process.
Draft EN 302 217-2 V3.4.1_0.0.4	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. Test Standard development work is progressing.
Draft EN 302 326-2 V2.2.1_0.0.5	Fixed Radio Systems Multipoint Equipment and Antennas Part 2: Harmonised Standard for access to radio spectrum	Stable Draft. Test Standard development work is progressing.
Draft EN 302 480 V0.0.7	Mobile Communication On Board Aircraft (MCOBA) systems	Stable Draft. European Commission first assessment received. Standard requires minor or limited number of changes.
Draft EN 303 940-1 V1.1.1_0.0.5	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 just starting.



Draft EN 303 354 V1.1.8	Amplifiers and active antennas for TV broadcast reception in domestic premises	Final Draft. First European Commission assessment completed and comments addressed. Under Public Enquiry Process.
Draft EN 303 659 V0.0.18	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	Final Draft. First European Commission assessment completed and working to address comments received.
EN 303 661 V1.1.1	Short Range Devices (SRD) Ground Based Synthetic Aperture Radar (GBSAR) in the frequency range 17,1 GHz to 17,3 GHz and High Definition Ground Based Synthetic Aperture Radar (HD-GBSAR) in the frequency range 76 GHz to 77 GHz	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU.
Draft EN 303 687 V1.1.5	6 GHz WAS/RLAN	Early Draft. Test Standard development work is just starting.
EN 303 753 V1.1.1	Wideband Data Transmission Systems (WDTS) for Mobile and Fixed Radio Equipment operating in the 57 - 71 GHz band	Already published by ETSI and delivered to European Commission for final assessment. Waiting for its publication as Harmonised Standard in OJEU.
Draft EN 303 851 V0.0.8	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.	Final Draft. First European Commission (EC) assessment completed and comments addressed. Second EC assessment requested and received. Standard requires minor or limited number of changes.
Draft EN 304 220-1 V1.2.0	Wideband data transmission SRD operating in the frequency range 25 MHz to 1 000 MHz Part 1: Wideband data transmission devices: network access points operating in designated bands	Final Draft. Second European Commission assessment completed and comments addressed. Under final ETSI Approval Process. Once it is completed, the final assessment form European Commission is required.
Draft EN 304 220-2 V1.2.0	Wideband data transmission SRD operating in the frequency range 25 MHz to 1 000 MHz Part 2: Wideband data transmission devices: terminal node operating in designated bands	Final Draft. Second European Commission assessment completed and comments addressed. Under final ETSI Approval Process. Once it is completed, the final assessment form European Commission is required.



Draft EN 305 550-6 V1.1.1_0.2.1	Short Range Devices (SRD) to be used in the 40 GHz to 260 GHz frequency range Part 6: Specific radiodetermination applications - Tank Level Probing Radar (TLPR) and Level Probing Radar (LPR) equipment operating in the frequency ranges 116 GHz to 148,5 GHz; 167 GHz to 182 GHz and 231,5 GHz to 250 GHz	Stable Draft. First European Commission assessment completed and currently addressing the comments.
Draft EN 301 489-5 V2.2.8	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 5: Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech) and Terrestrial Trunked Radio (TETRA)	Stable Draft. European Commission first assessment received. Standard requires minor or limited number of changes. Currently, working to address those comments.
Draft EN 301 489-28 V0.0.11	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 28: Specific conditions for wireless digital video links	Draft review after Public Enquiry. Second European Commission Assessment completed. Comments received from EC addressed and ready to start with Standard Approval.
Draft EN 301 489-52 V0.0.5	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 52: Specific conditions for Cellular Communication User Equipment (UE) radio and ancillary equipment	Final Draft. First European Commission assessment completed and comments addressed. Under Technical Body Approval Process. Includes in the scope 5G FR2.
Draft EN 301 489-55 V0.0.7	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services Part 55: Specific conditions for ground based equipment for air navigation operating on 1030 MHz and 1090 MHz	Early Draft. Test Standard development work is progressing.
EN 301 843-2 V2.3.1_0.0.1	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 301 843-7 V1.1.1_0.0.2	ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services Part 7: Specific conditions for Maritime Broadband Radiolink equipment	Early Draft. Test Standard development work is just starting.



Draft EN 301 843-8
V1.1.1_0.0.3

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.

歐盟委員會發佈了《通用充電器指令 Common Charger Directive 解釋指南》

2024年5月7日，歐盟委員會發佈了一份文件，旨在對《通用充電器指令 Common Charger Directive》涵蓋的某些事項和程序提供指導，修訂 RED。該文件彙集了在《通用充電器指令》通過後與相關國家當局和利益相關方交流資訊所產生的資訊。

自2024年12月28日起，《通用充電器指令》的規則將適用於手機、平板電腦、數位相機、耳機、耳麥、掌上遊戲機、便攜式揚聲器、電子閱讀器、鍵盤、滑鼠、便攜式導航系統和耳塞。這些規則將於2026年4月28日起適用於筆記型電腦。

本指南澄清了有關常見充電器要求的主要問題/疑問。主要要點包括：

- **USB-C 插座是強制性的。** 只要涵蓋的無線電設備還配備了標準 EN IEC 62680-1-3 中所述的 USB-C 插座，就不禁止使用其他插座。
- **6 pins USB-C 插座不能用於充電。** 只能使用標準 EN IEC 62680-1-3 中指定的 USB-C 插座（12、16 和 24 pins）。
- **不允許使用供應器電纜。** 僅具有專用充電插座的產品不能與將專有充電插座轉換為 USB-C 插座的轉接器一起銷售。
- **通過充電盒、充電箱或充電座充電的設備屬於該指令的適用範圍。** 屬於附件 Ia 第一部分所列的一類或一類無線電設備的所有無線電設備，如果可以通過有線充電方式進行充電，則必須採用統一的充電解決方案。只有耳塞式耳機與其充電盒或充電箱一起使用時，耳塞式耳機的充電盒或充電箱不被規範在這充電器的要求內。
- **只能通過無線充電進行充電的設備不在該指令的範圍內。** 無線電設備不能通過有線方式進行充電，它不需要採用統一的（有線）充電解決方案。
- **帶有可拆卸電池的設備只能與無線電設備（在電池充電器中）分開充電，不屬於該指令的適用範圍。** 此類無線電設備不屬於「能夠通過有線充電進行充電的無線電設備」的定義。此類產品與由不可充電電池（“AA 型”）供電的產品“相似”。如果此類產品具有僅用於供電的插座，則不受通用



充電器指令引入的 RED 規則的約束。換句話說，如果該插座不能用於為無線電設備（重新）充電，則它不受這些規則的約束。

- **僅設計用於商業/工業用途的特定產品仍須受通用充電器指令的約束。**然而，該指令規定，不要求專門為視聽領域或安全和監控領域設計的數位相機整合統一的充電解決方案。
- **僅適用於可充電設備。**通用充電器規則適用於以下無線電設備：(a) 屬於附件 Ia 第一部分所列的無線電設備類別或類別；(b) 配備可拆卸或嵌入式可充電電池；(c) 可以通過有線充電進行充電。

Additional Information:

- Commission Notice – Guidance for the interpretation of the Common Charger Directive: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:C_202402997

AdCo EMC 和 RED 報告了 2023 年市場監督統計數據

AdCo EMC 於 2024 年 6 月 16 日發佈了 2023 年市場監督統計數據，該年度的監督活動重點是廚房用家用電器。14 個國家市場監督管理機構對 88 種產品進行了檢查。一般而言，對行政和技術要求的遵守程度被認為較低。總體而言，56% 的被測設備被評估為合規。

選定的設備代表了市場上相當數量的產品，很明顯，製造商需要在合規性方面進行改進。

Group	Devices Checked	Non-Compliance Rate
Administrative	80	68 (15,00%)
CE Marking	78	3 (3,84%)
Declaration of Conformity	76	15 (19,73%)
User Manual	75	4 (5,33%)
Technical Documentation	28	12 (42,85%)
Traceability	74	2 (2,70%)
Compliance with Harmonised Standards		
Standards	81	21 (25,92%)
Emissions	16	1 (6,25%)
Immunity		

AdCo RED 於 2023 年 6 月 17 日發佈了 2023 年的市場監督統計數據。2023 年，共有 21 個市場監督機構檢查了 10,429 種無線電產品。其中大約 7,490 種產品（71,82%）被發現不符合 RED 的任何規定。大部分不合規問題與行政和技術文件相關（例如標籤、合格聲明、測試報告等）。

需要強調的是，所顯示的統計數據並不能反映 RED 產品在歐洲市場的總體合規率，因為大多數市場監督機構將其活動集中在被稱為“不合規率高的行業”的領域。



Group	Devices Checked	Non-Compliance Rate	Comments
Administrative	10.412	7.299 (70,10%)	Main issues are related with: <ul style="list-style-type: none">- Article 10.7: Manufacturer identification (43,80%)- Article 10.8: Instructions and safety information (42,87%)- Article 10.9: Declaration of Conformity (41,15%)- Articles 19 and 20: CE Marking in label (38,99%)
Technical Documentation	501	352 (70,26%)	Main issues are related with: <ul style="list-style-type: none">- Risk Assessment (54,46%)- Annex V(i): Packaging information indicating restriction of use in different EU countries (47,73%)- Annex V(d): Descriptions of the solutions adopted to meet the essential requirements if Harmonised Standards have not been applied (47,31%)- Annex V(h): Test Reports (34,87%)
Essential Requirements	986	336 (34,08%)	Non-compliance rate detected for each essential requirement is: <ul style="list-style-type: none">- Article 3.1.a (EMC): 2,81%- Article 3.1.b (Health & Safety): 6,25%- Article 3.2 (RF): 13,93%- Article 3.3 (Additional Requirements): 8,79%

Additional Information:

- AdCo EMC report on market surveillance 2023: <https://ec.europa.eu/docsroom/documents/59854>
- AdCo RED report on market surveillance 2023: <https://ec.europa.eu/docsroom/documents/60174>

英國政府修訂了立法，無限期地延長對 CE 標誌的認可

2024 年 5 月 23 日，英國政府制定立法，繼續承認當前的歐盟要求，包括 CE 標誌。新的法律框架將適用於 21 項產品法規。其中包括 18 項由商業與貿易部（DBT）負責的產品法規，這些法規於 2023 年 8 月 1 日已經宣布。根據行業反饋，英國政府還將繼續承認另外 3 項法規，涵蓋生態設計、民用爆炸物以及在大多數情況下限制有害物質（在電子設備中）。

英國政府已納入以下更改：

- **延續 CE 標誌認可。**英國政府無限期承認主要產品的 CE 標誌，但醫療設備、建築產品、海洋設備、鐵路產品、纜車、可移動壓力設備和無人機系統（UAS）產品除外。



- **快速通道 UKCA 流程**。此流程允許製造商在滿足 EU 基本要求並且在需要時由 EU 認可的合格評定機構進行合格評估後，將產品投放到 GB 市場。製造商需要附上 UKCA 標誌並制定 UK 合格聲明，列出符合相關 EU 立法的情況。這一措施旨在為企業提供長期的確定性和靈活性，以備英國未來對某些法規要求 UKCA 標誌時使用。
- **標籤要求**。製造商可以選擇直接在產品上貼上標籤、粘貼標籤或使用數字標籤。

Additional Information:

- UK Government - Placing manufactured products on the market in Great Britain: <https://www.gov.uk/guidance/placing-manufactured-goods-on-the-market-in-great-britain>
- UK Government - CE Marking: <https://www.gov.uk/guidance/ce-marking>



北美（美國和加拿大）

FCC KDBs 更新

2024 年第 2 季度發布/更新的主要 KDB:

KDB	Status	Question	Comments
987594	Draft	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?	Draft KDB under review and comments period. 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.
996369	Draft	What is the FCC guidance for equipment authorization of transmitter module devices, and equipment that incorporates transmitter modules?	Draft KDB under review and comments period. Revised guidance on Antennas specifically for licensed client modules. Current version in force, was revised in April 2024 and required licensed client modules to be treated like Part 15 Modules (unlicensed module). After considering comments from the TCB module committee, this draft version aligns with how limited client modules have been certified in the past.
364244	New	What Guidance is provided for certifying radar devices under the provisions of §15.225 of the FCC rules?	New KDB explaining the options to certify 57 – 71 GHz radar under FCC Part 15.225. Includes general measurement considerations to perform the testing.
996369	Update	What is the FCC guidance for equipment authorization of transmitter module devices, and equipment that incorporates transmitter modules?	Corrects multiple typos, clarifies items and refers guidance for Grantees and Host's integrators related to RF exposure to KDB 447498. Requires for licensed modules to test each antenna type and to perform a Permissive Change if Host device uses a different antenna type. Specifies requirements for different cases for Limited Modular Approval (LMA), for instance, Non-Shielded Modules, no buffered modulation/data inputs, no voltage regulation,... and the PAG requirements for LMA.
273109	Update	What is the equipment authorization guidance for Part 25 Transceivers?	Provides guidance for Supplemental Coverage from Space (SCS) device approval under FCC Part 25.



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?	Clarifies the procedure for Permissive Changes to devices with approved PAGs. PAG List updated: - Updated HAC5GS, MODLIM and RDR255 - Removed DRGAIN, MEDRAD, UMFLEX and UN5GHz - Replaced PWRDYN, PWRRED and TXSENS with PWRCNG
941225	Update	What are the SAR test procedures for 3G/4G devices?	Clarification about the size limit for UMPC Mini-Tablet classification (diagonal dimension ≤ 20 cm). The diagonal dimension to be compared to the 20 cm threshold for considering a device as UMPC Mini-Tablet is to be rounded to the first decimal, i.e., the nearest tenth. In other words, any number less than 20.05 cm will be considered the same as less than 20 cm, while any number 20.05 cm or larger will be regarded as greater than 20 cm.

FCC ET 案卷編號 19-138 (C-V2X) 更新

2024 年 4 月 18 日，FCC 向下列公司授予豁免權，其要求與「C-V2X 聯合豁免方」的要求相同：

- Continental Automotive Systems, Inc.
- Nissan Technical Center North America
- IT-Telecom
- Ettifos Co.
- Pennsylvania Department of Transportation
- Battelle Memorial Institute
- Maine Department of Transportation
- Louisiana Department of Transportation and Development
- Illinois State Toll Highway Authority
- The Contra Costa Transportation Authority
- Prince George's County Maryland

以下最近提交了在 5.905-5.925 GHz 頻段使用 C-V2X 技術的豁免請求，並提出了與“C-V2X 聯合豁免方”中提出的類似技術要求：

- North American Subaru, Inc.
- Keysight Technologies Inc.
- Innowireless Co. Ltd.



Additional Information:

- ET Docket No. 19-138: [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2219-138%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2219-138%22)))



ISED 更新

ISED 無線電標準於 2024 年第 2 季度更新:

Test Standard	Status	Title	Comments
RSS-123 Issue 5	Draft	Wireless Microphones and Wireless Multichannel Audio Systems	Draft under Consultation in Radio Advisory Board of Canada. Main updates are: <ul style="list-style-type: none">- Add Wireless Multichannel Audio Systems (WMAS).- Update the unwanted emissions requirements.
RSS-216 Issue 3	Draft	Wireless Power Transfer Devices	Draft under Consultation in Radio Advisory Board of Canada. Main updates are: <ul style="list-style-type: none">- Increase the maximum separation distance from 10 cm to 50 cm in case of wireless power transfer (WPT) systems for electric vehicles.- Increase the maximum operation frequency from 400 MHz to 40 GHz and added limits for radiated emissions above 1 GHz.- Add specific requirements for WPT devices that can operate while implanted in or worn on the human body.- Adopt ANSI C63.30-2021, with deviations.- Include the limits in RSS-216, instead of referring to ICES-001.- Clarify what equipment is considered industrial, scientific, and medical (ISM) equipment.
RSS-222 Issue 4	Draft	White Space Devices (WSDs)	Draft under Consultation in Radio Advisory Board of Canada. Main updates are: <ul style="list-style-type: none">- Add a new class of WSDs with less stringent first-adjacent channel unwanted emission limits.- Allow the operation of mobile WSDs on channels 3 and 4.



Test Standard	Status	Title	Comments
RSS-248 Issue 3	Draft	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band	Draft under Consultation in Radio Advisory Board of Canada. Main update is to add new equipment class for very low-power (VLP) devices with its corresponding power limits and operational requirements.
RSS-295 Issue 1	New	Licence-Exempt Radio Apparatus Operating in the Frequency Bands 116-123 GHz, 174.8-182 GHz, 185-190 GHz and 244-246 GHz	New standard for short-range devices and fixed point-to-point radio equipment. The scope of the standard also fits with Automotive Radar 116-123 GHz.
RSS-287 Issue 3	Update	Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD)	New standard version has a 6 months transition period. Main updates are: <ul style="list-style-type: none">- Include Automatic Identification Systems capability (AISs) on 161.975 MHz and 162.025 MHz operating frequencies for EPIRBs, PLBs, and MSLDs.- Include closed loop Digital Selective Calling (DSC) on 156.525 MHz operating frequency for MSLDs.



Test Standard	Status	Title	Comments
RSS-210 Issue 11	Update	Licence-Exempt Radio Apparatus: Category I Equipment	<p>New standard version has a 6 months transition period.</p> <p>Standard has been aligned with related FCC Parts. Main updates are:</p> <ul style="list-style-type: none">- Family Radio Service (FRS)/General Mobile Radio Service (GMRS) and General Mobile Radio Service-M (GMRS-M): Measurements shall be performed and reported in accordance with ANSI C63.26.- Wireless microphones operating in the television bands, in the 614-616 MHz band and in the 653-663 MHz band: Added technical specification for Wireless Multichannel Audio Systems (WMAS).- Devices operating in the band 57-71 GHz: Update use restrictions (Non-Fixed Field Disturbance Sensors and Automotive Radars are allowed and Devices can be used in-flight with certain limitations), define new emissions limits and clarify measurement requirements.- Wideband devices operating within the band 5925-7250 MHz: Clarified measurement procedure requirements.

2023 年第 3 季度發佈的 ISED 主要一般通告:

Notice	Description	Comments
Notice 2024-DRS0004	Guidance on curve-fitting techniques related to measurements associated with nerve stimulation compliance	<p>Provides further guidelines on curve-fitting techniques being used in accordance with section 5.3.1 of RSS-102.NS.MEAS or 7.1.1 of SPR-002 issue 2.</p> <p>Includes an example step by step with different Regression Models explaining how to perform the Curve-Fitting Analysis.</p>
Notice 2024-DRS0005	Updates on internal electric field strength (E-field) assessments using the DASY Module WPT	Clarifies ISED position regarding the internal E-field assessment conducted per Section 5.1 of RSS-102.NS.MEAS when Test Lab uses DASY Module WPT.



ISED 發佈新版《測試實驗室認可程序以測試/評估加拿大法規要求》（REC-LAB）

2024 年 6 月 25 日，ISED 發佈了 REC-LAB 第 8 期，更新了加拿大對測試實驗室的認可要求。

主要變化包括：

- 修訂《檢測實驗室技術評估查檢表 Testing Laboratory Technical Assessment Checklist》。
- 增加每份申請都必須提供《檢測實驗室技術評估查檢表》的要求。
- 澄清認證範圍內列出的每個測試地點都需要單獨的《檢測實驗室技術評估查檢表》。
- 新增要求：《檢測實驗室技術評估查檢表》的評估日期不得超過 12 個月。
- 新增要求：在提交初次申請時以及在續期時（如有修訂），必須提供測試實驗室所有權文件（官方政府文件或所有權證書）。
- 新增要求：在初次申請及續簽（如有修訂）時，需提供負責測試、審查和簽核的員工名單，包括工作的實際地址（城市/國家）。

Additional Information:

- REC-LAB Issue 8: <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/devices-and-equipment/procedures-conformity-assessment-bodies/rec-lab-procedure-recognition-testing-laboratories-testassess-canadian-requirements>



標準制定組織 (SDO)

國際電工委員會 (IEC)

2024 年第 2 季度發佈的主要 IEC 與 EMC/RF 相關的出版物:

Publication	Scope
IEC 61000-2-4:2024 PRV	Electromagnetic compatibility (EMC) - Part 2-4: Environment - Compatibility levels in power distribution systems in industrial locations for low-frequency conducted disturbances
IEC 61000-5-6:2024	Electromagnetic compatibility (EMC) - Part 5-6: Installation and mitigation guidelines - Mitigation of external EM influences
IEC 62153-4-3:2013+AMD1:2024	Amendment 1 - Metallic communication cable test methods - Part 4-3: Electromagnetic compatibility (EMC) related test method for measuring surface transfer impedance - Triaxial method
IEC 62153-4-15:2021/AMD1:2024	Amendment 1 - Metallic cables and other passive components test methods - Part 4-15: Electromagnetic compatibility (EMC) related test method for measuring transfer impedance and screening attenuation or coupling attenuation with triaxial cell
IEC 61786-1/AMD1:2024 PRV	Amendment 1 - Measurement of DC magnetic, AC magnetic and AC electric fields from 1 Hz to 100 kHz with regard to exposure of human beings - Part 1: Requirements for measuring instruments
IEC TS 60601-4-6:2024	Medical electrical equipment - Part 4-6: Guidance and interpretation - Voluntary guidance to help achieve basic safety and essential performance with regard to the possible effects of electromagnetic disturbances
IEC 60947-2:2024 PRV	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers
IEC 60947-5-7:2024	Low-voltage switchgear and controlgear - Part 5-7: Control circuit devices and switching elements - Proximity devices with analog output
IEC TS 62271-5:2024	High-voltage switchgear and controlgear - Part 5: Common specifications for direct current switchgear and controlgear
IEC TS 62271-314:2024	High-voltage switchgear and controlgear - Part 314: Direct current disconnectors and earthing switches
IEC 61347-2-3:2024	Controlgear for electric light sources - Safety - Part 2-3: Particular requirements - AC or DC supplied electronic controlgear for fluorescent lamps
IEC 61347-2-13:2024	Controlgear for electric light sources - Safety - Part 2-13: Particular requirements - Electronic controlgear for LED light sources
IEC 62153-4-9:2018/AMD2:2024	Amendment 2 - Metallic communication cable test methods - Part 4-9: Electromagnetic compatibility (EMC) related test method for measuring coupling attenuation of screened balanced cables - Triaxial method



Publication	Scope
IEC 80601-2-49/AMD1:2024 PRV	Amendment 1 - Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitors
IEC 62271-100/AMD1:2024 PRV	Amendment 1 - High-voltage switchgear and controlgear - Part 100: Alternating-current circuit-breakers
IEC 62271-200:2021+AMD1:2024	Amendment 1 - High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
IEC 60669-2-1:2021/COR1:2024	Corrigendum 1 - Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic control devices
IEC 60947-1:2020/COR2:2024	Corrigendum 2 - Low-voltage switchgear and controlgear - Part 1: General rules

Additional Information:

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

歐洲電子技術標準委員會

2024 年第 2 季度發布的主要歐洲電子技術標準委員會與 EMC/RF 相關的出版物:

Publication	Scope
EN IEC 61000-3-2:2019/A2:2024	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current < 16 A per phase)
EN 60601-1:2006/A13:2024	Medical electrical equipment - Part 1: General requirements for safety
EN IEC 62052-11:2021/A12:2024	Electricity metering equipment - General requirements, tests and test conditions - Part 11: Metering equipment
EN IEC 60669-2-1:2022/AC:2024-05	Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic control devices
EN IEC 60947-1:2021/AC:2024-05	Low-voltage switchgear and controlgear - Part 1: General rules
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

Additional Information:

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





國際標準化組織 (ISO)

2024 年第 2 季度發佈的主要 ISO 與 EMC/RF 相關的出版物:

Publication	Scope
ISO 5474-1:2024	Electrically propelled road vehicles - Functional and safety requirements for power transfer between vehicle and external electric circuit Part 1: General requirements for conductive power transfer
ISO 5474-2:2024	Electrically propelled road vehicles - Functional and safety requirements for power transfer between vehicle and external electric circuit Part 2: AC power transfer
ISO 5474-3:2024	Electrically propelled road vehicles - Functional and safety requirements for power transfer between vehicle and external electric circuit Part 3: DC power transfer
ISO 11451-3:2024	Road vehicles - Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy Part 3: On-board transmitter simulation
ISO 11452-3:2024	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy Part 3: Transverse electromagnetic (TEM) cell
ISO 19085-6:2024	Woodworking machines - Safety Part 6: Single spindle vertical moulding machines (toupie)

Additional Information:

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

CTIA – 無線協會

2024 年第 2 季度發佈的與無線 (OTA) 性能相關的主要 CTIA 出版物:

Publication	Scope
CTIA 01.01	Test Scope, Requirements, and Applicability v4.0.5 (May 2024)
CTIA 01.50	Wireless Technology, 3GPP Radio Access Technologies v4.0.2 (May 2024)
CTIA 01.51	Wireless Technology, Location Based Technologies v4.0.4 (May 2024)
CTIA 01.71	Device Setup and Positioning Guidelines v4.0.2 (May 2024)
Wi-Fi CWG	Test Plan for RF Performance Evaluation of Wi-Fi® Mobile Converged Devices v4.0.1 (April 2024)
CTIA 01.01	Test Scope, Requirements, and Applicability v6.0.3 (June 2024)



Publication	Scope
CTIA 01.03	Normative Reporting Tables v6.0.2 (June 2024)
CTIA 01.04	Informative Reporting Tables v6.0.2 (June 2024)
CTIA 01.20	Test Methodology, SISO, Anechoic Chamber v6.0.2 (June 2024)
CTIA 01.51	Wireless Technology, Location Based Technologies v6.0.3 (June 2024)
CTIA 01.71	Device Setup and Positioning Guidelines v6.0.1 (June 2024)
CTIA 01.73	Supporting Procedures v6.0.3 (June 2024)
CTIA 01.90	Informative Reference Material v6.0.1 (June 2024)
Wi-Fi CWG	Test Plan for RF Performance Evaluation of Wi-Fi® Mobile Converged Devices v6.0.0 (April 2024)
CTIA 01.01	Test Scope, Requirements, and Applicability v7.0.0 (April 2024)
CTIA 01.03	Normative Reporting Tables v7.0.0 (April 2024)
CTIA 01.04	Informative Reporting Tables v7.0.0 (April 2024)
CTIA 01.20	Test Methodology, SISO, Anechoic Chamber v7.0.0 (April 2024)
CTIA 01.21	Test Methodology, SISO, Reverberation Chamber v7.0.0 (April 2024)
CTIA 01.22	Test Methodology, SISO, Millimeter Wave v7.0.0 (April 2024)
CTIA 01.40	Test Methodology, MIMO, Static Channel Model, Multi-Probe Anechoic Chamber v7.0.0 (April 2024)
CTIA 01.41	Test Methodology, MIMO, Static Channel Model, Radiated Two Stage v7.0.0 (April 2024)
CTIA 01.50	Wireless Technology, 3GPP Radio Access Technologies v7.0.0 (April 2024)
CTIA 01.51	Wireless Technology, Location Based Technologies v7.0.0 (April 2024)
CTIA 01.52	Wireless Technology, Non-3GPP Radio Access Technologies v7.0.0 (April 2024)
CTIA 01.70	Measurement Uncertainty v7.0.0 (April 2024)
CTIA 01.71	Device Setup and Positioning Guidelines v7.0.0 (April 2024)
CTIA 01.72	Near-Field Phantoms v7.0.0 (April 2024)
CTIA 01.73	Supporting Procedures v7.0.0 (April 2024)
CTIA 01.90	Informative Reference Material v7.0.0 (April 2024)

Additional Information:

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