Your response

Question	Your response
Question 1: Do you agree with our proposals to extend the licence exemption relating to mobile terminals connecting to an MCA to include 5G devices? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 2: Do you agree with our proposals to extend the licence exemption relating to mobile terminals connecting to an MCV to include 5G terminals? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 3: Do you agree with our proposals to introduce new licence exemptions for (i) Indoor Security Scanners and (ii) Audio PMSE devices? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 4: Do you agree with our proposals to amend the technical conditions for various SRDs as set out in this document? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N IEEE 802 LMSC is a leading consensus-based open standards development committee for networking standards that are used by industry globally. It produces standards for networking devices, including wired and wireless local area networks ("LANs" and "WLANs"), wireless specialty networks ("WSNs"), wireless metropolitan area networks ("Wireless MANs"), and wireless regional area networks ("WRANs"). Technologies produced by implementers of our standards are a critical element for all networked applications today. IEEE 802 LMSC is a committee of the IEEE Standards Association and of Technical Activities, two of the Major

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	Organizational Units of the IEEE. IEEE has over 460,000 members in more than 190 countries and its core purpose is to foster technological innovation and excellence for the benefit of humanity. IEEE is also a major accredited standards development organization whose standards are recognized worldwide. In submitting this document, IEEE 802 LMSC acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802 LMSC. Therefore, this submission should not be construed as representing the views of IEEE as a whole[1]. IEEE 802 LMSC follows Ofcom's regulatory activities regarding license-exempt short-range devices closely and applauds Ofcom for consulting on updating the Wireless Telegraphy License Exemptions. Please find the IEEE 802 LMSC comments below. IEEE Std 802.11ah-2016[2], known as Wi-Fi HaLow in the marketplace[3] and now incorporated into the draft IEEE 802.11-2024 standard,[4] specifies mechanisms for the operation of Wi-Fi in the license exempt sub-1 GHz bands. IEEE 802.11ah was developed for long range, low power sensor and IoT networks and applications. It excels in long range coverage of over 1 km (subject to the maximum allowed transmit power)[5] and has excellent penetration through walls and obstacles. IEEE 802 LMSC commends Ofcom on its proposed amendment to the existing licence exemption for some non-specific SRDs, specifically related to the 800 MHz and 900 MHz frequency bands as shown in Table 7 of the consultation. By replacing the phrase "may also be used" with "applies", it gives clarity that the duty cycle limit applies when Listen Before Talk (LBT) and Adaptive

[1] This document solely represents the views of IEEE 802 LMSC and does not necessarily represent a position of either the IEEE or the IEEE Standards Association or the IEEE Technical Activities.

[2] 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 Amendment 2: Sub 1 GHz License Exempt Operation, IEEE Std 802.11ah-2016 (Amendment to IEEE Std 802.11-2016, as amended by IEEE Std 802.11ai-2016), vol., no., pp.1-594, 5 May 2017, doi: 10.1109/IEEESTD.2017.7920364.

[3] Wi-Fi Alliance: Wi-Fi CERTIFIED HaLow, https://www.wi-fi.org/discover-wi-fi/wi-fi-certified-halow [accessed: 13 March 2025]

[4] See clauses 10.45 to 10.62, clause 23, and Annex L of "IEEE Draft Standard for Information Technology -- Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks -- Specific Requirements - Part 11: Wireless Local Area Network (LAN) Medium Access Control (MAC) and Physical Layer (PHY) Specifications," in IEEE P802.11-REVme/D7.0, August 2024 , vol., no., pp.1-6213, 30 July 2024.

[5] See Morse Micro: Pushing the limits: Wi-Fi HaLow Testing in Joshua Tree National Park, https://www.morsemicro.com/2024/09/09/pushing-the-limits-wi-fi-halow-testing-in-joshua-tree-national-park/ [accessed: 13 March 2025].

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	Frequency Agility (AFA) or an equivalent mitigation technique is not used.
Question 5: Do you have any additional comments on our proposed changes to the licence exemption for SRD equipment?	Confidential – N No comments
Question 6: Do you agree with our proposal to introduce new licence exemptions for Radiodetermination, Location Tracking, Tracing and Data Acquisition, Vehicle applications and High Power Indoor-only applications in the 6-8.5 GHz band? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N Ultra-Wide Band (UWB) devices, as specified in IEEE Std 802.15.4 standards, are being used worldwide for a wide range of applications in communication, measurement, location, imaging, surveillance, and medical systems[6], often in conjunction with other short range device technologies. UWB enhances the operation of such technologies and is an efficient means to share spectrum. The next generation of UWB technology, being developed under IEEE P802.15.4ab[7], builds on IEEE Std 802.15.4-2024[8]. Future developments supported by this project include: • Improved link budget and reduced air-time • Enhanced sensing capabilities for presence detection and environment mapping • Improved accuracy, precision, and reliability for high-integrity ranging • The use of interference mitigation techniques to support greater device density and higher traffic use cases • Improved coexistence with other services • Reduced complexity and power consumption • Enhanced support for ultra-low power, low latency streaming

[6] See FiRa Consortium: Unleashing the Potential of UWB: Regulatory considerations, August 2022, https://www.firaconsortium.org/sites/default/files/2022-08/Unleashing-the-Potential-of-UWB-Regulatory-Considerations.pdf [accessed 13 March 2025]. The introduction of IEEE 802.15 UWB-enabled devices in smartphones and laptops puts forecasts at more than 1 billion devices shipped annually worldwide by 2025.

[7] See IEEE P802.15.4ab, https://www.ieee802.org/15/pub/TG4ab.html [accessed: 13 March 2025].

[8] "IEEE Standard for Low-Rate Wireless Networks," in *IEEE Std 802.15.4-2024 (Revision of IEEE Std 802.15.4-2020)* , vol., no., pp.1-967, 12 Dec. 2024, doi: 10.1109/IEEESTD.2024.10794632.

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	• Support for emerging applications such as high-definition audio IEEE 802 LMSC commends Ofcom for recognizing the rapidly growing value of UWB. Use of extremely low power UWB devices in accordance with ECC Decision (06)04 and the ETSI EN 302 065 series of standards harmonizes with worldwide regions, creates further economies of scale, and supports a robust equipment market, benefitting UK businesses, consumers, as well as providing significant societal benefits from the effective use of the radio spectrum. IEEE 802 LMSC fully endorses the implementation of new license-free provisions within the 6 GHz to 8.5 GHz frequency range. The sharing and compatibility studies in ECC Report 327 and CEPT Report 84 have shown that this can be done without risk of harmful interference to other spectrum users.
Question 7: Do you agree with our proposal to amend the existing licence exemption for generic UWB devices to make clear that the use of UWB in an aircraft, road vehicle or a train are not in scope of the exemption? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N IEEE 802 LMSC endorses the recommendation to specify that UWB technology in vehicle-related applications falls under dedicated vehicular regulations rather than general UWB rules. This clarification will ensure UK regulatory alignment with ECC Decision (06)04.
Question 8: Do you have any additional comments on our proposed changes to the licence exemption for UWB equipment?	Confidential – N Since the proposals intend to integrate the measures from ECC Decision (06)04 and the updated European Commission Decision on UWB, IEEE 802 LMSC respectfully asks Ofcom to consider using the same terminology, namely “enhanced indoor devices”, as referenced in Section A1.3.2 of the ECC Decision (06)04.
Question 9: Do you agree with our proposals to introduce a new licence-exemption for Group B AMRDs in Channel 2006? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments

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Question 10: Do you agree with our proposals to introduce a new licence exemption for very low power maritime radios operating in an on-land training setting to be made licence-exempt? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 11: Do you agree with our proposals to extend the existing licence exemption for testing and development under suppressed radiation conditions? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 12: Do you agree with our proposals to extend the application of Regulation 7 of the 1989 Regulations i.e. that equipment users must conduct measurements to ensure that their equipment does not exceed the limits on spurious emissions, to anyone relying on the proposed exemption in the additional bands. Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 13: Do you have any other comments on our proposals to make amendments to the licence exemptions for this testing equipment?	Confidential – N No comments
Question 14: Do you agree with our proposals to extend the existing exemption for radio equipment operated by visiting amateur radio users, to cover use by those on short visits from countries with which we have bilateral reciprocal licensing agreements?	Confidential – N No comments

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Question 15: Do you agree with our proposals to define a temporary visit as a maximum period of three months? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments
Question 16: Do you agree with our proposal to introduce a new licence exemption for Fixed Wireless Access equipment operating in the 5725-5850 MHz band? Please give reasons and provide evidence that supports your comments on the proposals.	Confidential – N No comments