

Updating Wireless Telegraphy Licence Exemptions

Proposals to make additional Wireless Telegraphy equipment licence exempt and proposed changes to existing exemptions

Consultation

Published: 17 January 2025 Closing date for responses: 28 March 2025



Contents

Section

1.	Overview	3
2.	Introduction	5
3.	Mobile Communications onboard Aircraft and Vessels to include 5G terminals	9
4.	Short-range devices (SRDs)	.14
5.	Ultra-wideband (UWB)	.31
6.	Autonomous maritime radio devices (AMRDs)	.36
7.	Coastal Station Radio (Training School)	.38
8.	Testing and Development under suppressed radiation conditions	.40
9.	Amateur Radio (Full) (Temporary Reciprocal)	.46
10.	5.8 GHz (5725-5850 MHz) Fixed Wireless Access (FWA)	.49

Annex

A1.	Legislative framework	.51
A2.	Impact assessment	.52
A3.	Consultation questions	.55
A4.	Responding to this consultation	.57
A5.	Ofcom's consultation principles	.59
A6.	Consultation coversheet	.60

1. Overview

- 1.1 Wireless communications have become an integral part of modern life, enabling a wide range of applications from mobile phones and Wi-Fi networks to satellite communications and car key fobs. These technologies rely on the use of radio frequencies, which are a finite resource.
- 1.2 To manage this resource effectively, Ofcom is empowered under the Wireless Telegraphy Act 2006 (the "WT Act") to grant licences for the use of radio frequencies. We do this to ensure that the radio spectrum is used efficiently and without harmful interference between different users. However, not all wireless devices require a licence and under section 8(4) of the WT Act Ofcom has a duty to create regulations that exempt specific types of equipment from the need to hold such a licence if certain conditions are met. Ofcom also has a general power to allow the licence exempt use of other wireless devices where it considers it appropriate to do so.
- 1.3 Licence exemption supports the development and take up of wireless technologies and reduces the regulatory burden on manufacturers and users, encouraging the introduction of new and innovative products to the market. We periodically review the licence exemptions that are in place to reflect changes in technology and usage patterns, to safeguard the efficient use of the radio spectrum and to remove disproportionate regulatory burdens.

What we are proposing - in brief

We are consulting on proposals to introduce new licence exempt use of some equipment and amend the current technical conditions that apply to existing licence exemptions. The proposed changes fall into two primary categories, as set out below:

- 1. Exemptions to harmonise the conditions of use of certain equipment in the UK with other countries. Under this category, we propose to either introduce a new exemption or make amendments to an existing one in relation to the following equipment:
- Mobile Communications onboard Aircraft (MCAs) and Vessels (MCVs) –we propose to amend the existing licence exemptions to enable the use of 5G terminals (handsets and dongles) connecting to a dedicated mobile base station on an aircraft or ship.
- Short Range Devices (SRDs) we propose to introduce new licence exemptions for use of additional SRD equipment and to amend existing licence exemption rules for a range of SRDs. The proposals affect some indoor security scanners; audio Programme Making and Special Events (PMSE) devices; inductive (Radio Frequency Inductive Device) RFID systems; active medical implants; assistive listening devices; low duty cycle / high reliability devices; transport and traffic telematics devices; and the non-specific SRD category of devices.
- Ultra-Wideband (UWB) we propose to introduce new licence exemptions and amend existing ones for operating certain UWB equipment. These proposals affect location tracking devices (e.g. for parking management, home security and access control systems), general vehicle applications (e.g. for use at high density road

crossings) and indoor only applications (e.g. tracing people within buildings) in the 6-8.5 GHz frequency band, and existing rules for generic UWB devices.

- Autonomous maritime radio devices (AMRDs) we propose to introduce a new licence exemption for use of AMRD equipment categorised as 'Group B' equipment where this uses a specific channel. These devices alert other users of their presence and can include diver and fishing net locating devices.
- 2. Exemptions identified by Ofcom through our simplification programme of work. We have identified a number of areas where we think we could simplify how we authorise some equipment. Under this category, we propose to introduce either a new exemption or make amendments to an existing one in relation to the following equipment:
- **Coastal Station Radio (Training School)** we propose to introduce a new licence exemption for use of these very low power indoor systems used for training purposes. Training schools would still be required to abide by the existing technical conditions of operation.
- **Testing and Development Under Suppressed Radiation Conditions** we propose to amend the existing licence exemption to increase the spectrum ceiling from 960 MHz to 275 GHz. This change would remove the need for some users to obtain an Innovation and Trial licence when testing or developing equipment in an indoor, suppressed environment at specified power levels.
- Amateur Radio Full (Temporary Reciprocal) we propose to introduce a new licence exemption for short-term use of Radio Amateur equipment by Radio Amateurs visiting from countries that are not covered by the <u>CEPT Recommendation T/R 61-02</u>, but with whom the UK has a bilateral reciprocal agreement.
- **5.8 GHz (5725-5850 MHz) Fixed Wireless Access (FWA**) we propose to introduce a new licence exemption for use of this equipment. Operators of the equipment would still need to comply with the existing technical conditions set out in <u>IR 2007</u>.
- 1.4 The focus of this consultation document is on our policy proposals. If we decide, having considered responses to this consultation, to proceed with making these changes to the licence exemption regime, we would need to implement these by making new or amended exemption regulations. As required by section 122(4) of the WT Act, we would consult on such regulations before making them.
- 1.5 The overview section in this document is a simplified high-level summary only. The proposals we are consulting on, and our reasoning are set out in the full document.
- 1.6 We invite any comments on these proposals by **5pm on Friday 28 March 2025.**

2.Introduction

What is licence exemption?

- 2.1 Licence exemption allows certain devices or activities to operate without needing a specific <u>Wireless Telegraphy Act 2006</u> (the 'WT Act') licence. This is typically applied to low-power equipment that is unlikely to cause interference to other services.
- 2.2 Licence exemption helps to reduce the regulatory burden on consumers and facilitate the widespread use of low-power technologies. During a typical day most people in the UK already interact with wireless telegraphy equipment that has been exempted from the need to hold a WT Act licence such as mobile phones, WiFi routers, car key-fobs, baby monitors and wireless doorbells. This document sets out for consultation a number of proposals in relation to licence exemption.

Licence exemption proposals

- 2.3 In the following sections we set out details of the specific changes that we are proposing to make to the licence exemption regime. In particular, we explain where:
 - we are proposing to exempt the use of some equipment, whose use currently requires an Ofcom licence, from the requirement to hold such a licence. We also set out the terms, provisions and limitations that we are proposing must be met in order for the use of that equipment to be licence-exempt; and
 - we are proposing to amend existing licence exemption rules and indicating what the proposed changes are.
- 2.4 Under section 8(4) of the WT Act we have a duty to exempt equipment if its installation or use meet the conditions under section 8(5) of the WT Act and is not likely to involve undue interference with wireless telegraphy, have an adverse effect on technical quality of service, lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy, inhibit the development of effective arrangements for the sharing of frequencies, endanger safety of life, prejudice the promotion of social, regional or territorial cohesion, or prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 2.5 We have indicated in this document where we consider those conditions are met.
- 2.6 Where we are introducing a new licence exemption, or amending the technical conditions which apply to an existing licence exemption, we also consider the extent to which those new or amended conditions are objectively justifiable, not unduly discriminatory, proportionate and transparent as required by section 8(3B) of the WT Act. Further details on the legal framework for licence exemption under the WT Act can be found in Annex 1 of this document.
- 2.7 We have grouped our proposals under two main categories:
 - proposals that harmonise the UK regulatory framework with that in other countries (see Sections 3-6); and
 - proposals made as part of our WT Act licence simplification programme (see Sections 7-10).

2.8 The categories are explained in more detail in the following paragraphs.

Exemption proposals that would harmonise technical conditions for use of equipment in the UK with other countries

- 2.9 The licence exemption proposals in Sections 3-6 seek to harmonise some of the technical conditions for use of equipment in the UK with those in other countries.
- 2.10 Where possible and appropriate, we seek to harmonise our equipment conditions with other countries to ensure consistent technical specifications across different countries for managing interference risks. We recognise the ongoing benefits of doing so for UK consumers and business. Differences in spectrum access conditions could create barriers to the availability of some technologies in the UK, increase production costs and create risks of harmful interference with other radio equipment in the rest of Europe.
- 2.11 Ofcom works closely with other European countries via the European Conference of Postal and Telecommunications Administrations (CEPT) to develop harmonised conditions for licence-exempt equipment. CEPT's technical studies form the basis for many of the European Commission's harmonisation decisions as well as the Electronic Communications Committee (ECC)'s own harmonisation decisions and recommendations. The UK is not legally obliged to implement the European Commission or ECC's harmonisation decisions. However, Ofcom is actively involved in the development of the harmonised conditions set out in those decisions and recommendations via our work in CEPT and recognises the benefits that harmonisation can bring, as described above.¹

Exemption proposals under our WT Act licence simplification programme

- 2.12 We regularly review our spectrum framework to ensure it meets new demands and responds to technological changes. Section 6 of the Communications Act 2003 also requires Ofcom to keep the carrying out of its functions (including those under the WT Act) under review with a view to securing that regulation by Ofcom does not involve:
 - a) the imposition of burdens which are unnecessary; or
 - b) the maintenance of burdens which have become unnecessary.
- 2.13 The proposals in Sections 7-10 are part of broader work by Ofcom to simplify, standardise and where possible further automate elements of our licensing work, as referenced in <u>Ofcom's Plan of Work</u>. We have found that licence exemption can support this by removing the need for equipment to be licensed where appropriate.
- 2.14 Where identified, for specific equipment in this document we have proposed to move from what we term a 'Light' licensing regime to licence exemption. These 'Light' licences share the same spectrum with other licensees and are not provided with a coordinated frequency assignment, like licence exemption. The licences are normally for lower-

¹ CEPT is made up of 46 member countries including the UK. CEPT works to coordinate and harmonise policies across its member countries in relation to telecommunications, radio spectrum and postal services.

powered equipment, which means that the radio signals do not travel far and the risk of interference between users is low. For example, we sometimes authorise the use of equipment under a light licence if we are not sufficiently confident, based on the evidence available at the time, that the equipment would not cause interference. By authorising the use of the equipment under a 'Light' licence, we are able to manage that risk as we hold information on who is operating the equipment should it cause interference.

- 2.15 As part of our licensing simplification work, we reviewed our 'Light' licences to see whether, based on experience and evidence of reported interference, we could now licence exempt some of the equipment. Based on this work we identified a number of licence categories where we provisionally consider it would be appropriate to introduce new licence exemptions.
- 2.16 We also looked at other older licence exemptions to see whether the terms could be updated to remove disproportionate regulatory burdens. Again, we identified some areas where updates could be made.

Our approach

2.17 In the following sections, we set out our proposals to introduce new licence exemptions and to change existing ones. In each case, we explain our rationale for the proposal, including whether it represents a change to an existing exemption or introduces a new one, what the change is and any likely impact. Proposed changes to technical conditions contained in tables are highlighted in **bold**.

Structure of this document

- 2.18 The remainder of this document is set out as follows:
 - Section 3 sets out details of our licence exemption proposals in relation to 5G terminals for Mobile Communications onboard aircraft (MCA) and onboard vessels (MCV);
 - Section 4 sets out details of our licence exemption proposals in relation to Shortrange devices (SRDs);
 - Section 5 sets out details of our licence exemption proposals in relation to Ultrawideband devices (UWB);
 - Section 6 sets out details of our licence exemption proposals in relation to Autonomous Maritime Radio Devices (AMRDs);
 - Section 7 sets out details of our licence exemption proposals in relation to Coastal Station Radio (Training Schools);
 - Section 8 sets out details of our licence exemption proposals in relation to Testing and Development under Suppressed Radiation conditions;
 - Section 9 sets out details of our licence exemption proposals in relation to the Amateur Radio (Full) (Temporary Reciprocal) licence;
 - Section 10 sets out details of our licence exemption proposals for the 5.8 GHz (5725-5850 MHz) Fixed Wireless Access (FWA) licence;
 - Annex 1 outlines the legislative framework for licence exemption and Ofcom's decision-making process;
 - Annex 2 contains our Impact Assessment;
 - Annex 3 contains the list of consultation questions;

- Annex 4 explains how to respond to this consultation,
- Annex 5 sets out Ofcom's consultation principles; and
- Annex 6 contains the Ofcom consultation coversheet.

Next steps

2.19 Following the publication of this consultation document, stakeholders are invited to provide their feedback on our policy proposals regarding licence exemption. Those who wish to do so have until 5pm on Friday 28 March 2025 to make representations. After taking any responses into account, we expect to publish our final policy decisions by June 2025 and to thereafter consult on regulations to implement these policy decisions.

3.Mobile Communications onboard Aircraft and Vessels to include 5G terminals

- 3.1 Mobile communication services enable airline and ship passengers to use mobile terminals (such as handsets, tablets and laptops) during their flight or cruise without connecting directly with a land mobile network. This is because onboard the aircraft or ship there is a dedicated mobile base station that the terminals can connect to instead.
- 3.2 As the base stations onboard the aircraft or ship use the same frequencies as the land based mobile networks, they could cause interference if operated close to each other. For that reason, the current licences for ships or aircraft set out specific rules regarding where the onboard base stations can be turned on and operated, to avoid harmful interference to land-based networks. The licence exemption states that mobile terminals are only exempt when operating in accordance with these rules.
- 3.3 As mobile technology has evolved over time from GSM (2G), UMTS (3G) and to LTE (4G), we have updated the exemptions accordingly. This ensures that devices used on ships and aircraft can benefit from the latest mobile technologies.
- 3.4 CEPT carried out a number of technical studies^{2,3} that resulted in them adopting ECC Decisions (06)07 and (08)08 regarding the use of the latest 5G New Radio (5G) technology onboard aircraft and ships. Based on the CEPT work, the European Commission has introduced two harmonisation decisions that enable the use of the latest 5G technology onboard an aircraft⁴ or ship⁵ in the European Union (EU).
- 3.5 As we have previously aligned our technical conditions to permit both Mobile Communications onboard aircraft (MCAs) and Mobile Communications onboard vessels (MCVs) to access the latest technology (2G, 3G and 4G) we consider updating the regulations to introduce the use of 5G technology is a logical next step and ensures those on board aircraft and ships can access the same quality of service on UK registered ship or aircraft as would be the case for a ship/aircraft registered in an EU Member State. Like previous updates, allowing licence-exempt use of the latest mobile terminal technology on board aircrafts and ships would support more efficient use of spectrum and improve communications services for passengers when travelling on UK registered aircraft, or on UK registered ships.

² See - <u>CEPT Report 81</u>

³See - <u>ECC Report 336</u>

⁴ See - European Commission Implementing Decision (EU) 2022/2324

⁵ See - European Commission Implementing Decision (EU) 2024/340;

Mobile Communications onboard Aircraft (MCAs)

- 3.6 We are proposing to amend the existing licence exemption for mobile terminals connecting to an MCA to include the latest 5G technology. We have already made 2G, 3G and 4G network terminals connecting to MCAs licence-exempt in the UK.
- 3.7 The technical conditions for MCAs were first harmonised in 2008 with the European Commission adopting <u>Commission Decision 2008/294/EC.</u> The Decision set out the technical conditions for using 2G technology on board aircraft. We implemented this decision by including the base station equipment on the Aircraft radio licences that we issue and making terminals that connect to the base station licence exempt through the <u>Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations</u> <u>2008.</u> We made regulations in <u>2014</u> and in <u>2017</u> to introduce, respectively, 3G and 4G technologies.
- 3.8 <u>CEPT Report 81</u> was published in November 2021 and contained the technical parameters CEPT consider appropriate for allowing the use of 5G services based on the studies they had undertaken. In November 2022 the ECC amended Decision (06)07 and the European Commission adopted <u>Implementing Decision (EU) 2022/2324</u> (the "MCA Decision"). These decisions established the harmonised technical conditions for operating 5G non-active antenna systems on aircraft in the 1800 MHz (1710-1785 MHz and 1805-1880 MHz) band.
- 3.9 We therefore propose to enable the use of 5G network terminals onboard aircraft by making these also licence-exempt. We propose to do this by aligning the technical conditions for 5G mobile terminals connecting to onboard MCA equipment on UK registered aircraft, with those in the MCA Decision (and shown below in Table 1). This will ensure the ongoing compatibility with land-based mobile networks and minimise interference.
- 3.10 Table 1 sets out the technical conditions that we propose for terminals connecting to MCAs using 5G.

Table 1: Proposed technical conditions for licence-exempt use of 5G terminals connecting to anMCA in the 1800 MHz band.

Height above ground (m)	Maximum EIRP outside the aircraft in dBm/5 MHz ¹	Maximum EIRP, outside the aircraft, from the LTE and 5G NR mobile terminal in dBm/5 MHz ^{1,2}
3000	10	0
4000	13	2
5000	15	4
6000	16	6
7000	18	7
8000	19	8

1. For channel bandwidth other than 5 MHz, a correction, calculated by the formula 10 × log10 (channel bandwidth/(5 MHz)) dB, shall be added to the EIRP values.

2. The EIRP is specified per channel regardless of the used channel bandwidth due to the fact that multiple mobile terminals could be operated.

- 3.11 In light of the technical studies undertaken by CEPT we believe that extending the current licence exemption to include 5G terminals is not likely to have a negative impact on other existing users in this band. Due to this, we are satisfied that amending the exemption to add additional equipment, subject to the conditions included in the ECC Decision (06)07 and the MCA Decision and reflected in our own proposals, meets the criteria as set out in section 8(5) of the WT Act.
- 3.12 In our view updating the licence exemption to include 5G services will enhance communications services for passengers when travelling on UK registered aircraft. These proposals would help passengers use 5G on their devices and benefit from improved mobile connectivity that this brings with it.

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.

Mobile Communications onboard Vessels (MCVs)

- 3.13 We are proposing to amend the existing licence exemption for mobile terminals connecting to an MCV to include the latest 5G technology. We have already made 2G, 3G and 4G network terminals connecting to MCVs licence-exempt in the UK.
- 3.14 In March 2010, <u>Commission Decision 2010/166/EU</u> was adopted by the European Commission and harmonised conditions to support the use of MCVs by passengers and crew using 2G connectivity in the 900 MHz and 1800 MHz bands. We implemented this decision by including the base station equipment on the Ship radio licences that we issue

and making terminals that connect to the base station licence exempt through the <u>Wireless Telegraphy (Mobile Communication Services on Board Ships) (Exemption)</u> <u>Regulations 2011.</u>

- 3.15 Similar to the developments with MCAs, in February 2017, the European Commission adopted <u>Commission Implementing Decision (EU) 2017/191</u> that set out revised conditions that would support the use of 3G and 4G technologies for MCV use and included additional spectrum bands.⁶ Again, we implemented this decision in the UK by making the <u>Wireless Telegraphy (Mobile Communication Services on Ships) (Exemption) Regulations 2017</u> and updating the Ship radio licence.
- 3.16 With the arrival of 5G technology, CEPT has carried out technical studies to establish the conditions that would support the use of this latest technology by MCVs. In March 2023 CEPT published <u>Report 83</u> that contained the technical parameters for allowing the use of 5G services based on the studies they had undertaken. In March 2022 ECC Decision (08)08 was adopted and subsequently in January 2024 the European Commission adopted <u>Commission Implementing Decision 2024/340</u> (the "MCV Decision") that required EU Member States to implement the harmonised conditions. The ECC Decision (08)08 and the MCV Decision set out the harmonised technical conditions for the use of non-AAS (non-Active Antenna System) 5G)⁷ onboard ships in the 1800 MHz and the paired 2.6 GHz frequency bands ensuring continuous operation of 5G services within the European Union (EU) and CEPT countries.
- 3.17 These proposals would improve communications services for passengers when travelling on UK registered vessels. Therefore, we propose to align the technical conditions for mobile terminals connecting to MCV equipment, with the conditions set out in the MCV Decision.
- 3.18 In light of the technical studies undertaken by CEPT we believe that extending the current licence exemption to include 5G terminals is not likely to have a negative impact on other existing users in this band. We therefore consider that updating our MCV regulations to exempt 5G equipment, subject to similar criteria as applies to 2G, 3G and 4G equipment, meets the criteria set out in section 8(5) of the WT Act.
- 3.19 The technical conditions that we propose to apply to MCVs are set out below in Table 2.

⁶ The Decision supported use of 4G technologies in the 1710-1785 MHz band paired with 1805-1880 MHz and 2500-2570 MHz band paired with 2620-2690 MHz band, and 3G technologies in the 1920-1980 MHz band paired with 2110-2170 MHz band.

⁷ Non-AAS 5G NR is 5G technology that does not use advanced antennas which can change their signal direction.

Table 2: Proposed technical conditions for licence-exempt use of 5G New Radio (NR) onboardvessels in the 1800 MHz and 2600 MHz band

Parameter	Description		
Location	The system providing MCV services shall not be used closer than 4 nautical miles from the baseline, as defined in the United Nations Convention on the Law of the Sea.		
	Only indoor vessel-Base Station (BS) antenna(s) shall be used between 4 and 12 nautical miles from the baseline.		
Frequency bands	1710-1785 MHz and 1805-1880 MHz (the 1800 MHz frequency band)		
Frequency bands	2500-2570 MHz and 2620-2690 MHz (the "paired 2.6 GHz")		
Bandwidth	Only a bandwidth of up to 5 MHz (duplex) can be used per frequency band.		
Transmit power/power density	For mobile terminals used on board vessels and controlled by the vessel-BS the maximum radiated output power is set to 0 dBm.		
Emissions on deck	The indoor vessel-BS emission on deck shall be equal or below -98 dBm/5 MHz (equivalent to -120 dBm/15 kHz) (Note 1).		
	Between 4 and 12 nautical miles from the baseline, the quality criteria (minimum required received signal level in the cell) shall be equal to or higher than -83 dBm/5 MHz (equivalent to -105 dBm/15 kHz) (Note 1).		
Channel access and occupation rules	The Public Land Mobile Network selection timer shall be set to 10 minutes.		
	The timing advance parameter shall be set according to a cell range for the MCV distributed antenna system equal to 400 m (Note 2).		
	The Radio Resource Control user inactivity release timer shall be set to 2 seconds.		
Non-alignment with land networks	MCV carrier centre frequency shall not be aligned with land network carriers.		

Note 1: For SSB channel bandwidth other than 15 kHz, a conversion factor of 10*log10 (SSB BW/15 kHz) shall be added.

Note 2: The timing advance parameter has to be set according to the corresponding cell range.

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.

4.Short-range devices (SRDs)

- 4.1 In this section we set out proposals to introduce new licence exemptions and amend existing licence exemptions for Short-range devices (SRDs).
- 4.2 SRDs are typically lower power devices for the mass-market and include things such as remote-control units, car key fobs, Bluetooth and WiFi systems. As they transmit at low power, their radio signals do not travel far, which means that there is a very low risk of them causing interference to other users operating in the same frequency band. Consequently, most SRDs are licence-exempt and do not require a licence from Ofcom.
- 4.3 In response to the European Commission Permanent Mandate to CEPT regarding the annual update of the technical annex of the Commission Decision on SRD harmonisation, CEPT Report 85 was produced on 8 March 2024 and proposed several changes for SRDs. The report is used to update the European Commission's Implementing Decision on SRDs (the "SRD Decision") that all EU Member States must implement. Currently, the European Commission has not implemented the proposals set out in Report 85 but has presented a draft Implementation Decision and expects to adopt the Decision by Q1 2025.
- 4.4 Following the report, CEPT also published <u>an update to ERC Recommendation 70-03</u> ("Recommendation 70-03") in June 2024. The Recommendation 70-03 sets out the CEPT position on spectrum which can be designated for SRD applications. The June 2024 update to Recommendation 70-03 made several changes to the technical conditions for certain SRDs that are also consistent with those set out in Report 85, these are described in the following paragraphs.
- 4.5 Unlike the SRD Decision which EU Member States must implement, the adoption of the conditions set out in Recommendation 70-03 is optional. However, the recommendations assist CEPT members to set their national technical specifications for different types of SRDs and are regularly updated to reflect changes in technology.
- 4.6 We propose to update UK licence exemptions for SRDs to align with all of the CEPT recommendations, except for High-Definition Ground Based Synthetic Aperture Radar (HD-GBSAR) as set out in paragraphs 4.60 to 4.63 below.

Indoor security scanners

- 4.7 We are proposing to introduce a new licence exemption for Indoor security scanners in the 69-81 GHz band.
- 4.8 Indoor scanners are imaging devices, used to detect objects hidden under clothing without the need to make any physical contact. They are typically used for preventing commercial theft, smuggling, and for security screening at airports and other buildings. Currently, there is no authorisation in place in the UK to allow the operation of these devices.
- 4.9 <u>CEPT Report 85</u> describes the technical studies that were carried out to establish the conditions for sharing and compatibility between the security scanners and other users of the spectrum. This included designating the use of spectrum for security scanners in the 69.8-79.0 GHz band and the 76.5-80.5 GHz band. Our view is that due to the low power of the devices and the technical conditions restricting their use to indoor-only there is a very low risk of the equipment causing harmful interference.

4.10 Our provisional view is that indoor security scanners that meet the conditions set by CEPT in Recommendation 70-03 (and set out below) satisfy the conditions for licence exemption under section 8(5) and section 8(3B) of the WT Act. Therefore, we propose to exempt indoor security scanners subject to the technical conditions set out in Table 3 below.

Frequency Band (GHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
<u>69.8–79.9</u>	<u>7 dBm e.i.r.p.</u>		For security scanners operated indoors
<u>76.5–80.5</u>	<u>19 dBm peak e.i.r.p.</u> (At least 23 dB out-of- band attenuation relative to the maximum allowed peak e.i.r.p. is required.)		For security scanners operated indoors

Table 3: Proposed technical conditions for licence-exempt use of indoor security scanners

Audio Programme Making and Special Events (PMSE) devices

- 4.11 We are proposing to introduce a new licence exemption for some Audio Programme Making and Special Events (PMSE) equipment.
- 4.12 Audio PMSE devices are wireless audio equipment used in the production of content for television, radio, film, and live events. These include wireless microphones, in-ear monitors, and other audio transmission devices essential for high-quality audio capture and transmission in both professional and non-professional settings.
- 4.13 CEPT Report 85 proposed to introduce a new category of equipment under the SRD banner called 'audio PMSE', replacing the term 'high duty cycle / continuous transmission devices'. It also recommended that PMSE in the 821.5-826 MHz, 826-832 MHz and 1785-1804.8 MHz bands come under the SRD Decision. This was also incorporated into Recommendation 70-03.
- 4.14 In the UK, use of this equipment in most of these bands is already authorised via our <u>Shared UK Wireless Microphone licence</u>. These allow the licensee access to choose from a range of channels. These licences are not technically coordinated by Ofcom, and users share the same spectrum. If a channel is in use, then a licensee can switch to an alternative one. We note that in Europe, much of this use is now licence-exempt and we already have exemptions in place for the equipment in 863-865 MHz band in <u>Interface Requirement</u> 2030 (IR2030).

- 4.15 Based on the technical studies undertaken by CEPT and subject to meeting the technical conditions set out below (which were proposed by CEPT in CEPT Report 85), we believe that there is minimal risk of incompatibility with other Audio PMSE equipment in the band. We also believe that there is a very low risk of interference to other users. Therefore, we consider that it is appropriate to exempt Audio PMSE equipment in the following ranges: 821.5-826 MHz, 826-832 MHz and 1785-1804.8 MHz, as it would meet the conditions set out in section 8(5) of the WT Act. We are also satisfied that the technical conditions we are proposing (set out below) are consistent with section 8(3B) of the WT Act.
- 4.16 In considering Audio PMSE for licence exemption in these bands we believe that it would have the following benefits:
 - simplify the regulations for equipment by harmonising the authorisation approach with other countries; and
 - remove the administrative burden that licensing can bring although in this case this is likely to be minimal.
- 4.17 These proposed changes for audio PMSE devices only relate to the frequency bands marked in bold in Table 4; we are not proposing any changes to other bands allocated to PMSE.

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
<u>821.5-826</u>	<u>100 mW e.i.r.p. for</u> body-worn devices <u>20 mW e.i.r.p. for</u> <u>other devices</u>		
<u>826-832</u>	<u>100 mW e.i.r.p.</u>		
863-865	10mW e.r.p		This set of usage conditions is also available for personal cordless audio devices.
<u>1785-1804.8</u>	50 mW e.i.r.p. for body-worn devices or devices implementing Spectrum Scanning Procedure (SSP). 20 mW e.i.r.p. for other devices.		

Table 4 : Proposed technical conditions for licence-exempt use of audio PMSE devices

Inductive Radio-Frequency Identification (RFID)

- 4.18 We are proposing to amend the existing licence exemption for Inductive Radio-Frequency Identification (RFID) equipment operating in the 400-600 kHz frequency band.
- 4.19 RFID is a technology that uses electromagnetic fields to automatically identify and track tags attached to objects. An RFID system consists of three main components: the tag, the reader and the antenna. RFID offers advantages over traditional barcode systems as it does not require a direct line of sight to read the tags, making it more versatile. It is used for tracking goods and assets in a wide variety of sectors including retail, healthcare and agriculture.
- 4.20 CEPT Report 85 noted that for Inductive RFID systems operating in the 400-600 kHz band, the EU SRD Decision (EU) 2022/180 (the "2022 SRD Decision") did not include all of the technical elements set out in Recommendation 70-03. The report mentioned that only the transmit power limit/ field strength limit/power density limit of -5 dBµA/m at 10 metres was included in the EU SRD Decision.
- 4.21 In the UK we previously aligned with the technical conditions set out in the 2022 SRD Decision by including the technical conditions in IR2030/15/12. We are now proposing to update the technical conditions for RFIDs in 400-600 kHz to align with those in the more recent Recommendation 70-03.
- 4.22 We consider that the revised conditions for RFIDs still meet the requirements in section8(3B) of the WT Act. Updating the technical conditions as set out in Table 5 will ensure the ongoing compatibility with other equipment in the band and minimise the risk of interference to other users. We propose to update the technical conditions for RFIDs accordingly. Our provisional view is that these updates will have limited effect on the users of RFID devices as they are already reflected in ETSI harmonised standard (ETSI EN 300 330, Table J.2) and we do not expect any adverse impact on others using the band.
- 4.23 The proposed changes to the existing licence exemption for RFIDs are marked in bold in Table 5.

Table 5: Table of proposed updated technical conditions for licence-exempt use of Inductive RFIDsystems

Frequency Band (kHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
400-600	- <u>8 dBµA/m at 10</u> <u>metres in any</u> <u>bandwidth of 10 kHz.</u> <u>Furthermore, the total</u> <u>field strength is</u> -5 dBµA/m at 10 metres <u>for systems operating</u> <u>at bandwidths larger</u> <u>than 10 kHz.</u>	<u>Bandwidth ≥ 30 kHz</u>	

Active medical implants

- 4.24 We are proposing to amend the existing licence exemption for some Active medical implants.
- 4.25 Active medical implants are devices that are surgically placed inside the body of a human or animal to monitor or treat various medical conditions. They use radio to transmit data to external devices, allowing for continuous monitoring and management of health conditions.
- 4.26 Active medical implant devices are already licence-exempt in the UK, subject to compliance with the terms, provisions and limitations set out in IR 2030. The technical conditions which apply to the licence exempt use of these devices were designed to align with the harmonised conditions applicable to such devices in the EU. However, since making these licence exempt, CEPT Report 85 has proposed some amendments to those harmonised conditions.
- 4.27 For animal implant devices operating in the 12.5-20 MHz band, CEPT Report 85 revised the conditions of use from permitting the equipment to be allowed to be used airborne, to restricting it to indoor use only.
- 4.28 For devices operating in the 2483.5-2500 MHz band, CEPT Report 85 proposes certain corrections and clarifications to the usage conditions stating that the peripheral master units are for indoor use only. It also proposes to clarify when the whole frequency band may be used, replacing channel spacing with a bandwidth provision. This change is aimed to align the requirements between Recommendation 70-03, the SRD Decision and the ETSI equipment standard EN 301 559.
- 4.29 For active medical implant devices in 401-406 MHz, CEPT Report 85 proposed:
 - replacing the words "Alternatively a duty cycle limit of 0.1 % may also be used." with the word "Alternatively a duty cycle limit of 0.1 % applies." This change was intended to provide greater clarity on the requirements for the equipment to guarantee coexistence between SRD applications in those bands.
 - ii) simplifying the presentation of the technical provisions by redrafting how the channel spacing and bandwidth provisions are described.
- 4.30 We have also identified a typographical error in IR2030/4/8. The entry states that the frequency is 15-600 kHz however, it should be 315-600 kHz. Making this correction should have no effect on the equipment, therefore we propose to make this correction.
- 4.31 We are proposing to adopt the changes for active medical implant devices contained in CEPT Report 85 and as set out above in paragraphs 4.27 to 4.29. Doing this should provide consistency and clarity of how the technical conditions are presented and applied.
- 4.32 Our provisional view is that these proposed changes to the applicable technical conditions are appropriate for the reasons described above. As many of these changes are minor amendments, we believe it is unlikely they will have any impact on other users of the spectrum. For animal implant devices, limiting the use to indoor only should not have any significant impact on users as we understand most use cases are for indoor use in pharmaceutical medical facilities. We consider these proposed technical conditions meet

the requirements in section 8(3B) of the WT Act and would ensure consistent editorial presentation of the technical conditions between the UK and European conditions.

4.33 We propose to apply the changes set out in bold text in Table 6 for Active Medical Implants to the relevant entries in IR2030.

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
0. <u>3</u> 15-0.6	-5 dB μA/m at 10 metres	Duty cycle ≤ 10 %	This set of usage conditions is only available for animal implant devices.
12.5-20	-7 dBμA/m at 10 metres in a 10 kHz bandwidth <u>any bandwidth of 10</u> <u>kHz</u>	Duty cycle <u>≤</u> 10 %	<u>This set of usage</u> <u>conditions is only</u> <u>available for indoor use</u> <u>by</u> animal implant devices. Equipment may be used airborne
401-402	25 μW e.r.p	Channel spacing 25kHz. Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. Bandwidth ≤ 100 kHz	
		techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle limit of 0.1% <u>may</u> <u>also be used applies.</u>	

Table 6: Table of proposed updated technical conditions for Active Medical Implants

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules) Channel spacing 25kHz. Individual transmitters may combine adjacent channels for increased bandwidth Bandwidth ≤ 300 kHz	Other comments
402-405	25 μW e.r.p	Other techniques to access spectrum or mitigate interference, <u>including bandwidths</u> <u>greater than 300 kHz</u> <u>can be used</u> provided they ensure compatible operation with the other users and in particular with meteorological radiosondes.	
405-406	25 μW e.r.p	Channel spacing 25kHz. Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. Bandwidth ≤ 100 kHz Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle limit of 0.1% <u>may</u> <u>also be used applies.</u>	

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
2483.5-2500	10 mW e.i.r.p.	Channel spacing 1 MHz. The whole frequency band may also be used dynamically as a single channel for high speed data transmissions. Bandwidth ≤ 3 MHz Duty cycle ≤ 10% for peripherals.	Peripheral master units are for indoor use only. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in designated standards specified in the Notices of publication (See Section 6) must be used.

Non-specific SRDs

- 4.34 We are proposing to amend the existing licence exemption for some non-specific SRDs.
- 4.35 The non-specific SRD category encompasses all types of radio devices that meet the technical requirements for a specific frequency regardless of the application or the purpose. They typically operate over short distances and are used for various applications including telemetry, telecommand, alarms, data transmissions in general and other applications. Non-specific SRDs are already licence-exempt in the UK and subject to the terms, provisions and limitations set out in IR 2030.
- 4.36 CEPT Report 85 made several changes to the harmonisation of non-specific SRDs. These changes were mostly administrative or minor, such as name changes, or the removal of unnecessary restrictions. We are proposing to make the equivalent amendments to our own licence exemption regulations to ensure alignment and clarity. The changes included:
 - renaming 'High duty cycle / continuous transmission devices' in 87.5-108 MHz as a non-specific SRD. These devices are used as low power FM transmitters that provide a link between a personal device (e.g. a mobile phone) to an in-car or in-home entertainment system;
 - ii) removing the "≤ 50 kHz" channel spacing requirement for metering devices operating in 169.4-169.475 MHz as we consider it has no useful regulatory purpose;
 - iii) withdrawing the specific restrictions related to voice and video applications in 434.04-434.79 MHz and 869.7-870 MHz as they relate to analogue systems which no longer exist; and
 - iv) extending the current 25 mW non-specific SRDs in data networks down to 916.1 MHz with the same technical conditions.
- 4.37 In addition to the changes set out above, we are also proposing to make the same change as set out in paragraph 4.29(i) for Active Medical implants, where we propose to replace

the phrase "may also be used" with "applies" for devices operating within the 863-870 MHz range. This is to make it clear that the duty cycle limit applies when Listen Before Talk (LBT) and Adaptive Frequency Agility (AFA) or an equivalent mitigation technique is not used.

- 4.38 This proposal affects applications operating in 863-865 MHz, 865-868 MHz, 868-868.6 MHz 868.7-869.2 MHz, 869.4-869.65 MHz, and 869.7-870 MHz bands. Our provisional view is that this update will have limited effect on the users of the equipment as these changes are already part of the ETSI Harmonised Standard EN 300 220-2.
- 4.39 The proposed changes for Non-specific SRD devices are in **bold text** in Table 7 below:

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
<u>87.5-108</u>	<u>50 nW e.r.p.</u>	Bandwidth ≤ 200 kHz.	<u>This set of usage</u> <u>conditions is only</u> <u>available for audio</u> <u>transmitters with</u> <u>analogue frequency</u> <u>modulation (FM).</u>
169.4-169.475	500 mW e.r.p.	Channel Spacing ≤ 50 kHz Duty cycle ≤ 1.0 %	
434.04-434.79	10 mW e.r.p.	Duty cycle ≤ 100% subject to bandwidth ≤ 25 kHz.	Voice applications are allowed with advanced mitigation techniques. Other audio and video applications are excluded.
863-865	25 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 0.1% <u>may also</u> <u>be used applies.</u>	

Table 7: Proposed changes to Non-specific SRD devices

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
865-868	25 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 1% <u>may also be</u> <u>used-applies.</u>	
868-868.6	25 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 1% <u>may also be</u> <u>used-applies.</u>	
688.7-869.2	25 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 0.1% <u>may also</u> <u>be used applies.</u>	
869.4-869.65	500 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 10% <u>may also</u> <u>be used applies.</u>	
869.7-870	25 mW e.r.p	Requirements on techniques to access spectrum and mitigate interference apply. Alternatively, a duty cycle ≤ 1% <u>may also be</u> <u>used applies.</u>	
869.7-870	5 mW e.r.p.		Analogue audio applications other than voice/speech are excluded

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
<u>916.1</u> 917.4 -919.4	25 mW e.r.p	Bandwidth: ≤ 600 kHz Duty cycle: ≤ 1%	This set of usage conditions is only available for short- range device in data networks. All nomadic and mobile devices within the data network shall be controlled by a master network access point.

4.40 As these changes are minor amendments, we believe they are unlikely to have any impact on existing users of this equipment or other users of the spectrum. We consider the proposed technical conditions reflected in Table 7 better meet the criteria of section 8(3B) of the WT Act, in removing conditions that are no longer necessary in light of the new technical studies undertaken by CEPT Report 85. They would also ensure consistent editorial presentation of the technical conditions between the UK and European conditions. Therefore, we consider that it is appropriate to amend the technical conditions relating to these non-specific SRDs.

Wideband data transmission systems (WBDTS) in data networks

- 4.41 We are proposing to amend the existing licence exemption for Wideband data transmission systems (WBDTS) in 917.4-919.4 MHz.
- 4.42 WBDTS in data networks are a group of technologies that transmit data over a wide range of frequencies. They are used to deliver high-speed internet and other things that require large data transfers, quickly and reliably, such as for wireless networks and Internet of Things devices.
- 4.43 CEPT Report 85 proposed to extend the European Commission harmonisation of the 25 mW allocation for WBDTS from 917.4-919.4 MHz to 916.4-919.4 MHz with the same technical conditions. This update means that devices will benefit from use of an extended frequency range (an additional channel of 1 MHz) that will support better performance and reliability.
- 4.44 We note that WBDTS equipment in 917.4-919.4 MHz is currently licence-exempt but the proposals set out in CEPT Report 85 extend the allocation down to 916.4 MHz. This spectrum is already shared with a range of other SRDs operating at the same power level as this equipment. Based on the technical studies undertaken by CEPT we are satisfied that

the risk of adverse effects on other users in the band from extending the frequency range in this way is very low.

- 4.45 We believe that with the conditions included in the CEPT Report 85, and reflected in our own proposals, this proposal meets the criteria of section 8(5) and 8(3B) of the WT Act. Based on the technical studies undertaken by CEPT we are satisfied that there the risk of interference to other users in the band is low. Therefore, we are proposing to make these changes to the current licence exemption of WBDTS by extending the allocation down to 916.4-919.4 MHz.
- 4.46 The proposed extension to the licence exemption for WBDTS in data networks is shown in bold text in Table 8 below.

Table 8: Proposed extended frequency range for licence-exempt use of Wideband datatransmission systems

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
916.4 917.4 - 919.4	25 mW e.r.p.	Bandwidth: > 600 kHz and ≤ 1 MHz Duty cycle ≤ 10% for network access points. Duty cycle ≤ 2.8% otherwise	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in designated standards specified in the Notices of publication (See Section 6) must be used. This set of usage conditions is only available for wideband short- range devices in data networks. All nomadic and mobile devices within the data network shall be controlled by a master network access point.

Assistive Listening Device (ALD)

- 4.47 We are proposing to amend the existing licence exemption for assistive listening devices (ALD).
- 4.48 The ALD category covers a range of radio communications systems that allow persons suffering from a hearing disability to increase their listening capability. Typical systems, such as induction loop systems, include one or more radio transmitters and one or more radio receivers. Use of these devices is already licence-exempt in the UK and subject to the terms, provisions and limitations set out in IR 2030.
- 4.49 CEPT Report 85 proposed to remove Channel Bandwidth restrictions for devices operating in 169.4-169.475 MHz, 169.4875-169.5875 MHz and 173.965-216 MHz. The report noted that these restrictions are now obsolete and by removing these conditions it maintains technology neutrality by not excluding any technology that could be used for the relevant audio applications.
- 4.50 As this change liberalises the use of equipment that is already licence-exempt, we do not believe it will impact on other users of the spectrum. We consider that the changes proposed in CEPT Report 85, and reflected in Table 9, better meet the criteria of section 8(3B) of the WT Act, in removing conditions that are no longer necessary in light of the new technical studies undertaken by CEPT Report 85.
- 4.51 The amended technical conditions that we propose to apply to ALD systems are set out in bold text in Table 9 below.

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
169.4-169.475	500 mW e.r.p.	Channel Bandwidth ≤ 50 kHz	
169.4875- 169.5875	500 mW e.r.p.	Channel Bandwidth ≤ 50 kHz	

Table 9: Updated proposed technical conditions for Assistive Listening Devices (ALD)

Frequency Band (MHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
		Maximum channel spacing: ≤ 50 kHz Devices shall implement the whole frequency range on a tuning range basis.	
173.965-216	10 mW e.r.p.	A threshold of 35 dBµV/m is required to ensure the protection of a DAB receiver located at 1.5 metres from the ALD device, subject to DAB signal strength measurements taken around the ALD operating site. The ALD device should operate under all circumstances at least 300 kHz away from the channel edge of an occupied DAB channel.	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in designated standards specified in the Notices of publication (See Section 6) must be used.

Reliable alarm devices

- 4.52 We are proposing to amend the existing licence exemption for low duty cycle / high reliability devices to rename them as Reliable alarm devices.
- 4.53 These devices use radio communication to send alerts to a system or person when there is a problem. They can be for social, security or safety purposes.
- 4.54 CEPT Report 85 proposed an administrative change to rename the "low duty cycle / high reliability devices" to "Reliable alarm devices". Low duty cycle / high reliability devices are already licence-exempt and in our view this name is not well defined whereas the new term provides a better understanding of what the equipment is to be used for. Making this change will provide clarity as it more closely aligns the name of the authorisation with what it is used for. This change is not likely to have a negative impact on existing or future use of equipment but should provide clarity for stakeholders.

Transport and Traffic Telematics (TTT) devices

- 4.55 We are proposing to amend the existing licence exemption for Transport and traffic telematics (TTT) devices. Use of these devices is already licence-exempt in the UK and subject to the terms, provisions and limitations set out in IR 2030.
- 4.56 TTT devices are radio devices that are used to monitor and manage transportation and traffic (road, rail, water or air, depending on the relevant technical restrictions), traffic management, navigation, mobility management and in intelligent transport systems (ITS). Typical applications are used for different modes of transport, communication between vehicles (e.g. car to car), between vehicles and fixed locations (e.g. car to infrastructure) as well as communication from and to users.
- 4.57 We are also proposing to make the following changes to incorporate two provisions that were in Recommendation 70-03 and the SRD Decision but are not currently in the UK regulations, to fully align the UK with the harmonised conditions across Europe:
 - i) 5855-5865 MHz the text relating to the use of Transmit Power Control (TPC) does not fully align with that in the European harmonisation decisions. IR2030/14/20-21 state a transmit power level of "33 dBm e.i.r.p, 23 dBm/MHz e.i.r.p. density and Transmitter Power Control (TPC) range of 30 dB" whereas the harmonisation decisions state "33 dBm e.i.r.p., 23 dBm/MHz e.i.r.p. density and a Transmit Power Control (TPC) able to reduce the total power from its maximum to 3 dBm e.i.r.p.". We propose to reflect this wording in the UK licence exemption rules; and
 - ii) 76-77 GHz to make clear that TTT devices are only allowed on a licence-exempt basis in this frequency range for obstacle detection systems for crewed rotorcraft use subject to a transmit power limit of 30 dBm peak e.i.r.p. and 3 dBm/MHz average power spectral density and duty cycle limit ≤ 56 %/s. These systems are designed to warn the aircrew of obstacles including power lines, poles and masts in initial or final phases of flight, as well as during hovering phases. The technical provisions were set out in ECC Decision (16)01.
- 4.58 Our provisional view is that the inclusion of these provisions in IR2030 will have limited effect on the users of the equipment as they are already reflected in ETSI harmonised standards. In both these cases we believe that the amended technical conditions would continue to meet the requirements of section 8(3B) of the WT Act.
- 4.59 The proposed changes to the technical conditions relevant to TTT devices are highlighted in bold text in Table 10 below.

Table 10: Proposed updated technical conditions for licence-exempt use of Transport and TrafficTelematics (TTT)

Frequency Band (GHz)	Transmit power limit/field strength limit/ power density limit	Additional parameters (channelling and / or channel access and occupation rules)	Other comments
	33 dBm e.i.r.p.		Airborne use is not permitted.
5.855-5.865	23 dBm/MHz e.i.r.p. density and a Transmit Power Control (TPC) range of 30 dB <u>able to reduce the</u> total power from its <u>maximum to 3 dBm</u> <u>e.i.r.p.</u>		Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in designated standards specified in the Notices of publication (See Section 6) must be used.
<u>76-77</u>	<u>30 dBm peak e.i.r.p.</u> and 3 dBm/MHz average power spectral density	<u>Duty cycle limit ≤ 56</u> <u>%/s</u>	Only available to obstacle detection systems for crewed rotorcraft use.

Retaining the licence requirement for High-Definition Ground Based Synthetic Aperture Radar

High-Definition Ground Based Synthetic Aperture Radar (HD-GBSAR)

- 4.60 High-Definition Ground Based Synthetic Aperture Radar (HD-GBSAR) is a type of radar technology used for monitoring early signs of movement in materials, for example in relation to landslides or assessing building stability. It is an important tool for early warning systems.
- 4.61 Whilst the ECC have proposed a licence-exemption for HD-GBSAR equipment in the 76-77 GHZ band, we are not proposing to implement that exemption in the UK.
- 4.62 This is because as HD-GBSAR equipment operates at a higher power level (48 dBm mean e.i.r.p. and 18 dBm/MHz mean e.i.r.p. density) our current view is that it is more appropriate to authorise use of this equipment under a WT Act licence.
- 4.63 We consider that authorisation through a WT Act licence would be the most appropriate mechanism to ensure we will be able to better manage the potential risks which might arise from the use of higher power equipment in the band and to ensure that

users/operators comply with our <u>Guidance on EMF compliance and enforcement</u>. We plan to consult on introducing a licence to authorise use of HD-GBSAR in 2025.

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.

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.

Question 5: Do you have any additional comments on our proposed changes to the licence exemption for SRD equipment?

5.Ultra-wideband (UWB)

- 5.1 In this section we set out proposals to amend existing and introduce new licence exemptions for Ultra-wideband (UWB) devices.
- 5.2 UWB devices use very large bandwidths and transmit data over short distances at very low power levels. This means they can operate in the same spectrum as most other devices without causing interference. However, there are some instances where even these low powers might cause harmful interference, for example in bands used by Radio Astronomy, Earth exploration satellites and space research. Therefore, the technical conditions for licence exemptions for UWB devices need to be designed to take these factors into account.
- 5.3 The current exemptions and associated technical conditions for UWB devices to operate in the UK are set out in the <u>Wireless Telegraphy (Ultra-Wideband Equipment) (Exemption)</u> <u>Regulations 2015</u> (the "UWB Regulations"). Due to the mass market nature of these devices and to enable economies of scale, the technical conditions for these devices to be used on a licence-exempt basis have been harmonised across Europe for almost 20 years. In 2006, <u>ECC Decision (06)04</u> set out technical conditions for UWB below 10.6 GHz. This was followed in <u>2007 by the European Commission mandating EU member states to harmonise the technical conditions for the equipment</u>. As the technology has developed the technical conditions for the equipment are regularly reviewed by CEPT to ensure that the decisions reflect the most up to date equipment parameters and new use cases.
- 5.4 In July 2023, <u>CEPT Report 84</u> proposed several updates to the technical conditions for UWB devices. Specifically, these related to harmonised technical conditions for the following three new use cases for UWB in the 6-8.5 GHz band:
 - a) vehicle applications;
 - b) fixed outdoor usage for location tracking applications; and
 - c) higher-power indoor-only applications.
- 5.5 These proposals were adopted by the European Commission in <u>Commission Implementing</u> <u>Decision (EU) 2024/1467</u> in May 2024 (the "UWB Decision").
- 5.6 The future use of the 6 GHz band is currently being discussed internationally. In May 2024 Ofcom published a <u>paper</u> outlining proposals for how to share the upper 6 GHz band between mobile, WiFi and other users. Some of our proposals also referenced the use of UWB technology operating in the 6 GHz band. Since publication of the UWB Decision, we have carried out further analysis to make sure that the proposals for UWB in this section, do not affect our other work on sharing in the 6 GHz band.
- 5.7 We believe that there are a number of benefits in aligning our technical conditions for UWB with those in other European countries. It is also consistent with our previous decision in 2022 to harmonise with the 2019 Commission Implementing UWB Decision.
- 5.8 We have reviewed the technical conditions set out in the UWB Decision alongside the CEPT technical report that supported this work. We are confident that for each of the proposals the findings adequately manage any potential risks of interference to other spectrum users. We believe that these proposals will bring benefits to consumers and business alike.

5.9 In the following paragraphs we set out the proposed changes we intend to make to the UK licence exemption for the different UWB device categories.

Vehicle applications in 6-8.5 GHz

- 5.10 We are proposing to introduce a new licence exemption for vehicle UWB applications in the 6-8.5 GHz frequency band.
- 5.11 This equipment can be used for traffic management purposes and includes applications such as intelligent transport systems (ITS) which can provide very precise positioning information. These are needed for busy road crossings where the systems may need to differentiate between a truck, car or pedestrian to indicate if a lane is being used or a pedestrian is on the pavement. These include systems on the car but also within infrastructure on the roadside that communicate with passing vehicles.
- 5.12 In order to provide this more accurate information to augment existing Global Navigation Satellite System (GNSS) positioning systems, CEPT Report 84 proposed the changes set out in Table 11 in bold text. We consider that exempting these devices, subject to the technical conditions specified in Report 84, satisfies the conditions for licence exemption in section 8(5) of the WT Act and that the technical conditions we are proposing to apply are in line with the requirements of section 8(3B) of the WT Act.

Table 11: Proposed conditions for licence-exempt use of vehicle UWB applications in the 6-8.5 GHzband

Frequency Range	Maximum mean power spectral density (e.i.r.p)	Maximum peak power (e.i.r.p) defined in 50 MHz	
<u>6–8.5 GHz</u>	<u>- 41.3 dBm/MHz</u>	<u>0 dBm</u>	

<u>The following additional requirements apply to fixed outdoor installations supporting</u> <u>communication with UWB devices installed in road and railway vehicles: Antennas are</u> <u>directive, down tilted and installed at a maximum height of 10 m. The duty cycle is limited</u> <u>to maximum 5 % per second.</u>

The following additional requirements apply to UWB devices installed in road and railway vehicles: Antennas are installed at a maximum height of 4 m. The duty cycle is limited to maximum 1 % per second.

Radiodetermination, Location Tracking, Tracing and Data Acquisition applications in the 6–8.5 GHz band

- 5.13 We are proposing to introduce a new licence exemption for the use of Radiodetermination, Location Tracking, Tracing and Data Acquisition UWB applications in the 6-8.5 GHz band.
- 5.14 CEPT Report 84 identified several new use cases where location tracking, tracing and data applications would benefit from different power levels in the 6-8.5 GHz band. These included parking management, logistics, home security and ITS.

- a) Traffic management and car parking: these systems can be used to detect if a parking space is occupied and, when integrated into a broader intelligent infrastructure, provide accurate parking availability information. This could reduce the time spent searching for a space and the resulting congestion, which increases CO₂ and other emissions. CEPT Report 84 cited a 2020 Toshiba Research Europe report stating that up to 30% of inner-city traffic is caused by cars looking for parking. The report noted that current technology, mainly based on inductive sensing, has reliability issues under certain conditions. Using UWB fixed outdoor systems on streetlights could enable large-scale parking monitoring without needing a sensor in each slot.
- b) Logistics: enabling fixed outdoor tracking would allow for the extension of current indoor UWB tracking applications outdoors. This could enable the end-to-end tracking of objects, fully automated logistic systems and support the use of robot technologies.
- c) **Security and access control**: used to authenticate and authorise individuals to pass through doors or other physical barriers.
- d) ITS: Beyond vehicle applications, these outdoor systems can be integrated into ITS. Future applications could include automated traffic systems that communicate with vehicles, pedestrians, and other vulnerable road users. UWB may offer advantages over GNSS in urban areas where its coverage can sometimes be limited, providing highprecision information that could be particularly beneficial.
- 5.15 Currently, there is no existing licence exemption for these types of fixed outdoor systems. We are therefore proposing to introduce new licence exempt use of this new subset of UWB devices and to include them into our licence exemption regulations. We intend to implement the same technical conditions that are included in Report 84 and adopted into the UWB Decision. We consider that exempting these devices, subject to the technical conditions specified in Report 84, satisfies the conditions for licence exemption in section 8(5) of the WT Act and that the technical conditions we are proposing to apply are in line with the requirements of section 8(3B) of the WT Act.
- 5.16 Table 12 below sets out the proposed new technical limits for fixed outdoor systems.

Frequency Range	Maximum mean power spectral density (e.i.r.p)	Maximum peak power (e.i.r.p) defined in 50 MHz
<u>≤ 1.6 GHz</u>	<u>-90 dBm/MHz</u>	<u>-50 dBm</u>
<u>1.6-2.7 GHz</u>	-85 dBm/MHz	<u>-45 dBm</u>
<u>2.7-3.1 GHz</u>	-70 dBm/MHz	<u>-36 dBm</u>
<u>3.1-3.4 GHz</u>	-70 dBm/MHz	<u>-36 dBm</u>
<u>3.4-3.8 GHz</u>	-80 dBm/MHz	<u>-40 dBm</u>
<u>3.8-4.2 GHz</u>	-70 dBm/MHz	<u>-30 dBm</u>
<u>4.2-4.8 GHz</u>	-70 dBm/MHz	<u>-30 dBm</u>
4.8-6 GHz	-70 dBm/MHz	-30 dBm

Table 12: Proposed technical conditions for licence-exempt use of fixed outdoor UWB location tracking applications

Frequency Range	Maximum mean power spectral density (e.i.r.p)	Maximum peak power (e.i.r.p) defined in 50 MHz
<u>6-8.5 GHz (1)(2)(3)</u>	<u>-41.3 dBm/MHz</u>	<u>0 dBm</u>
<u>8.5-10.6 GHz</u>	<u>-65 dBm/MHz</u>	<u>-25 dBm</u>
<u>> 10.6 GHz</u>	-85 dBm/MHz	<u>-45 dBm</u>

(1) Within the 6-8.5 GHz band, the duty cycle is limited to maximum 5 % per second and antennas are installed at a maximum height of 10 m.

(2) For antenna heights above 2.5 m the maximum total radiated power spectral density
 (TRPsd) is limited to -46.3 dBm/MHz and the antennas must be directive and down tilted.
 (3) Antennas for data acquisition for authentication/access control (PACS) are excluded
 from the antenna directivity requirements given under note 2.

Higher Power indoor only applications in 6-8.5 GHz

- 5.17 We are proposing a new licence exemption for higher power indoor only UWB applications in 6-8.5 GHz.
- 5.18 CEPT Report 84 noted that the existing power limits of -41.3 dBm/MHz for indoor UWB devices are adequate for normal-sized rooms or small office spaces but not necessarily for larger areas such as concert halls or exhibition spaces. These limits are set out in our licence exemption regulations for UWB devices.
- 5.19 Higher power would allow for greater coverage, which is beneficial when finding suitable locations to deploy equipment is challenging. The increased range would assist end users in setting up the system and enabling better seamless coverage within the venue. Additionally, the report stated that higher power could improve the accuracy of shorter-range measurements.
- 5.20 Based on the findings of Report 84 which was adopted in the UWB Decision, we are proposing to amend the existing licence exemption for indoor UWB applications. We are proposing to implement the technical changes set out in Table 13 below. We consider that exempting these devices, subject to the technical conditions specified in Report 84, satisfies the conditions for licence exemption in section 8(5) of the WT Act and that the technical conditions we are proposing to apply are in line with the requirements of section 8(3B) of the WT Act.

 Table 13: Proposed technical conditions for licence-exempt use of higher-power indoor-only UWB applications

spectral density (e.i.r.p)	(e.i.r.p) defined in 50 MHz			
<u>-31.3 dBm/MHz</u>	<u>10 dBm</u>			
(1) Within the 6-8.5 GHz band, the duty cycle is limited to maximum 5 % per second. Portable devices can operate with a maximum mean e.i.r.p. spectral density higher than – 41.3 dBm/MHz and a maximum peak e.i.r.p. higher than 0 dBm defined in 50 MHz only				
	he duty cycle is limited to ma th a maximum mean power <u>peak e.i.r.p. higher than 0 de</u>			

Generic UWB devices

- 5.21 We are proposing to amend the existing licence exemption for generic UWB devices to make clear that the exemption does not cover vehicle uses.
- 5.22 CEPT Report 84 proposed amendments to make clear that the use of UWB in an aircraft, road vehicle or a train are excluded from the scope of the generic UWB licence exemption. This was implemented in the UWB Decision. We propose to make the same clarification in our licence exemption regulations. Use of this equipment would still be permitted but made clearer in the regulations that this would be under the specific provisions for vehicle use.
- 5.23 We anticipate that any affected UWB devices currently in use will remain exempt under the more specific licence exemptions available for automotive and railway vehicles. Therefore, our provisional view is that the proposed clarification should have no impact on existing deployments and stakeholders.

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.

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.

Question 8: Do you have any additional comments on our proposed changes to the licence exemption for UWB equipment?

6. Autonomous maritime radio devices (AMRDs)

- 6.1 We are proposing to permit new licence exempt use of Group B Autonomous maritime radio devices (AMRD) which use the frequency 160.9 MHz (Channel 2006).
- 6.2 An AMRD is defined as a mobile station operating at sea that transmits independently of a ship station or a coast station. AMRDs are used for various maritime applications, including communication, navigation, and monitoring and are a relatively new development in the maritime sector. They are divided into two categories:
 - a) Group A AMRDs that enhance the safety of navigation; and
 - b) **Group B AMRDs –** that do <u>not</u> enhance safety of navigation.
- 6.3 Examples of Group B devices include markers for fishing nets, divers, yacht races or offshore platforms. The devices alert other users to their presence.
- 6.4 To date, the use of Group A and B AMRDs has been authorised under a Ship Radio licence. Group B AMRDs have been using channels Automatic Identification System (AIS)1 (161.975 MHz) and AIS2 (162.025 MHz) under a Ship Radio licence. However, AIS channels are meant for navigational aids, and unrelated targets can distract or mislead navigators, posing a risk to shipping.
- 6.5 The World Radiocommunication Conference 2019 (WRC-19) made <u>regulations</u> on the use of AMRD devices to enhance safety of navigation and to ensure the integrity of the global maritime distress and safety system (GMDSS) by focussing this on Group A AMRD devices. This is the only system for distress, emergency, and safety communication for general shipping. In the run up to WRC-19, the need for a new channel was identified, specifically for the Group B AMRDs, to ensure that safety critical Group A AMRDs are not overrun with these other markers.
- 6.6 WRC-19 made changes to Appendix 18 of the Radio Regulation that stated Group B AMRDs may only use the frequency 160.9 MHz (Channel 2006) and be limited to a transmitter e.i.r.p. of 100 mW and an antenna height not exceeding 1 m above the surface of the sea.
- 6.7 The WRC-19 regulations allowed discretion in the implementation of the changes. In order to facilitate a harmonised European framework, CEPT adopted <u>ECC Decision 22(02)</u>. This sets out conditions for the harmonised operation of AMRD equipment, based on the WRC-19 decision.
- 6.8 Consistent with the WRC-19 regulations and ECC Decision 22(02), we propose to licence exempt all Channel 2006 use of Group B AMRDs in the UK and Crown Dependencies (CDs),⁸ including their respective territorial seas, subject to the technical conditions set out in Table 14 below. Licence exemption would also apply to the use of Group B AMRDs by visitors from overseas within UK waters.
- 6.9 This approach aligns with international regulations that have allocated this channel for Group B AMRD equipment as set out in ECC Decision 22(02) and adopted by CEPT. Given

⁸ CDs of Jersey, Guernsey and the Isle of Man – subject to agreement from each island's respective authority

this, we believe it is unlikely that there will be any impact on other users in this band as it is a maritime allocated frequency. This change should support the use of group B devices in the appropriate channel, and thereby ensure that systems for enhancing navigation safety are protected in their use of other channels. We consider that exempting these devices in this new band satisfies the conditions for licence exemption in section 8(5) of the WT Act and that the technical conditions we are proposing to apply are in line with the requirements of section 8(3B) of the WT Act.

Table 14: Proposed technical conditions for licence-exempt use of Group B Autonomous Maritime Radio Devices (AMRD)

Channel	Frequency	Maximum EIRP	Antenna Height	MMSI
<u>2006</u>	<u>160.9 MHz</u>	<u>100 mW</u>	<u>Max 1m above sea level</u>	As provided by the manufacturer

6.10 This consultation is in respect of our decision to create a new licence exemption for Group B devices using channel 2006 only and does not affect existing licensing arrangements for Group B devices using other channels. On 18 December 2024 we published an <u>update</u> on our plans to consult on changes to the rules on spectrum use by AMRDs and wider changes to the maritime area. That consultation will also include proposals on phasing out the use of Group B AMRDs and Non-Class M Man Overboard Devices on channels AIS1 and AIS2. We strongly encourage individuals considering buying or making these devices to begin the transition to equipment which complies with the standards set out in the ECC Decision.

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.

7. Coastal Station Radio (Training School)

- 7.1 We are proposing to introduce a new licence exemption for the use of equipment currently authorised under our Coastal Station Radio (Training School) licence.
- 7.2 The Coastal Station Radio (Training School) licence enables users to practise operating maritime radios using very low powers and generic Maritime Mobile Service Identifier (MMSI) numbers⁹ within a classroom setting on land. Currently, this use is authorised via a 'Light' licence' which is subject to a one-off application fee of £20. The licence restricts the use of radios to indoors only, meeting a field strength limit of 0 dBµv/m at 10 metres distance.
- 7.3 With the current technical conditions, the equipment can only be used at very low powers and indoors. We believe that with these technical conditions, the risk of interference to other users in the same frequency band is very low. As the transmissions are effectively restricted to the room where the equipment is located, we consider that the risk of adverse effects on other users in the band is low. For that reason, we consider it meets the conditions for licence exemption in section 8(5) of the WT Act.
- 7.4 If we implement our exemption proposals, stakeholders will no longer need to apply for a Coastal Station Radio (Training School) licence from Ofcom. This would remove the licensing requirements from around 500 providers. If we proceed with making the regulations to exempt this use, we will contact all licensees to revoke their licence and make them aware of the regulations.
- 7.5 Table 15 below sets out the existing technical conditions for the Coastal Station Radio (Training School) licence. We propose to apply the same conditions to the proposed new exemption and consider that these would satisfy the requirements in s.8(3B) of the WT Act.

Table 15: Proposed technical conditions for licence-exempt use of Coastal Station Radio TrainingSchool equipment

Indoor/Outdoor	Frequency	Power	Distance	MMSI
Indoor only	<u>156-163 MHz</u>	<u>field strength</u> limit of 0 dBµv/m	<u>10m</u>	See Table 16

7.6 The current licence also permits the use of a range of MMSI numbers for training purposes which are set out in Table 16 below. We propose to continue to permit them to be used for training purposes under this licence exemption proposal.

⁹ MMSI number is a nine-digit number used for marine traffic monitoring systems.

Type and usage	MMSI numbers to be used
Shin station	<u>235899980 235899990 235899981 235899991 235899982</u> 235899992 235899983 235899993 235899984 235899994
	<u>235899985 235899995 235899986 235899996 235899987</u> 235899997 235899988 235899998 235899989 235899999
Group ship	023200599 023200600
Coast station	002320790 002320791
Group coast	002320780 002320781
Fixed-wing aircraft	<u>111232190 111232191</u>
<u>Helicopter</u>	<u>111232590 111232591</u>

Table 16: List of MMSI numbers assigned to Coastal Station Radio Training School use

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.

8.Testing and Development under suppressed radiation conditions

- 8.1 We are proposing to amend the existing licence exemption for the testing of equipment under suppressed radiation conditions to enable these activities to take place in most frequencies up to 275 GHz.
- 8.2 The <u>Wireless Telegraphy (Testing and Development Under Suppressed Radiation</u> <u>Conditions)(Exemption) Regulations 1989</u> (the "1989 Regulations") exempts equipment used for testing and development in suppressed radiation conditions (e.g. in anechoic chambers). As detailed in Table 17 below, the exemption applies a field strength limit which must be met (30 dBµV/m at 30 metres in most cases) and applies only in frequency bands up to 960 MHz.

Frequency band	Limit for maximum field strength (dBµV/m)	Distance at which measurement taken (m)
0.150-0.2835 MHz	34	100
0.5265-1.605 MHz	34	100
1.605-2.1735 MHz	48	100
2.1905-3.95 MHz	48	100
22-29.999 MHz	34	100
30-70.5 MHz	30	30
71.5-74.6 MHz	30	30
75.4-80 MHz	30	30
84-108 MHz	30	30
137-143 MHz	30	30
144-146 MHz	30	30
148-153 MHz	30	30
156.8375-225 MHz	30	30
400-405.5 MHz	30	30
406.5-450 MHz	30	30

Table 17: Current power limits for licence-exempt use of testing equipment under suppressed conditions

Frequency band	Limit for maximum field strength (dBµV/m)	Distance at which measurement taken (m)
453-464 MHz	30	30
467-960 MHz	30	30

- 8.3 Modern technologies utilise bands at much higher frequencies with some 6G research looking at bands over 100 GHz. For this and other research to be undertaken, many companies, academic institutions and individuals must currently apply for an <u>Innovation and Trial (I&T) licence</u> from Ofcom as it is outside the frequency bands covered by the 1989 Regulations. As part of our licence simplification programme, we have looked to see whether it would be possible to extend the current licence exemption for the testing of equipment under suppressed radiation conditions to frequencies above 960 MHz.
- 8.4 For UWB equipment there are already defined power limits that cover bands above 960 MHz. Technical studies have shown that UWB equipment transmitting at these power levels should not cause undue interference to other users of the spectrum. We therefore consider this can provide us with a suitable power limit on which to base our field strength limits for bands above 960 MHz. We are proposing to use the power limits for generic UWB equipment included in the most recent UWB Decision. As these limits apply to any UWB equipment and not specialist use cases, we believe that this is a suitable proxy for the range of testing activities that may occur under suppressed radiation conditions.
- 8.5 With these power limits, we believe it is appropriate to extend the scope of the current licence exemption to include all frequency bands *above* 960 MHz, except for the bands that are used by Radio Astronomy and Space Science and have been dedicated by International Telecommunications Union (ITU) as 'quiet bands'.
- 8.6 These dedicated bands are used by earth exploration systems for weather, water and climate research operations which have been internationally recognised by the <u>ITU</u> in footnote 5.340 of the <u>Radio Regulations</u>. In these 'quiet bands' no transmissions should take place. To comply with the ITU requirement, we propose to exclude all of these frequency bands from the scope of the proposed exemption. As no transmissions are permitted in these bands currently, we do not believe it would have any significant impact on stakeholders. Anyone seeking to test equipment operating in these bands would remain subject to the requirement to hold a licence.
- 8.7 In addition, we also propose to include within the exemption the frequencies below 960 MHz that are currently excluded from the exemption. For equipment below 960 MHz we are however proposing not to adopt the UWB limits as this would be 25 dBµV/m at 30 metres. This would be 5 dBµV/m lower than what we allow for testing equipment under suppressed radiation conditions in most bands below 960 MHz already. Given this, we propose to adopt a figure of 30 dBµV/m at 30 metres for most bands below 960 MHz whose use is not currently authorised on a licence-exempt basis, whilst retaining the existing limits for bands below 960 MHz whose use is already licence exempt. This would mean that all of the equipment already covered under the current licence exemption would remain authorised.
- 8.8 As the proposed technical conditions are similar to those of the existing UWB technology operating in these bands, we believe that the interference risk for our proposal is no

greater than that of generic UWB equipment already being used. Coupled with the prohibition on the use of ITU 5.340 bands, we believe that our proposal should not cause undue interference to the other users. We propose that any new frequency bands covered by the exemption would also be subject to the existing condition in Regulation 5 of the 1989 Regulations that equipment must not cause undue interference with any wireless telegraphy.

- 8.9 We have identified that approximately 150 to 200 of the annual I&T applications that we receive (around 15-20% of total applications), are for indoor testing above 960 MHz. Our proposed exemption may enable a number of these of stakeholders to test and develop their equipment without the need to hold a licence from Ofcom. This would mean that they would no longer need to complete an application and wait for their request to be assessed. By potentially reducing the volume of I&T applications we receive it may also enable us to process the remaining applications faster.
- 8.10 We believe that it is appropriate to implement these proposals as they meet the criteria for licence exemption in section 8(5) of the WT Act. We also consider that these proposals would support development and innovation, allowing business and researchers to trial and test equipment across a wider spectrum range more easily without needing to apply for a licence or pay related fees.
- 8.11 Table 18 below sets out the amended technical conditions that we are proposing would apply to the licence exempt use of testing and development equipment in suppressed radiation conditions.

Frequency band	Limit for maximum field strength (dBµV/m)	Distance at which measurement taken (m)
<u>8.3-1605 kHz</u>	34	100
<u>1.605-4 MHz</u>	48	100
<u>4-30 MHz</u>	34	100
<u>30- 960 MHz</u>	30	30
<u>960-1400 MHz</u>	<u>25</u>	<u>30</u>
<u>1400-1427 MHz</u>	Not permitted	
<u>1427-1600 MHz</u>	<u>25</u>	<u>30</u>
<u>1.6-2.69 GHz</u>	<u>30</u>	<u>30</u>
<u>2.69-2.7 GHz</u>	Not permitted	
<u>2.7-3.1 GHz</u>	<u>39</u>	<u>30</u>
<u>3.1-3.4 GHz</u>	<u>39</u>	<u>30</u>
<u>3.4-3.8 GHz</u>	<u>45</u>	<u>30</u>
<u>3.8-4.8 GHz</u>	<u>45</u>	<u>30</u>

Table 18: Proposed power limits for testing equipment under supressed conditions

Frequency band	Limit for maximum field strength (dBµV/m)	Distance at which measurement taken (m)
<u>4.8-6 GHz</u>	<u>45</u>	<u>30</u>
<u>6-8.5 GHz</u>	<u>75</u>	<u>30</u>
<u>8.5-9 GHz</u>	<u>45</u>	<u>30</u>
<u>9-10.6 GHz</u>	<u>50</u>	<u>30</u>
<u>10.6-10.68 GHz</u>	<u>45</u>	<u>30</u>
<u>10.68-10.7 GHz</u>	Not permitted	
<u>10.7-15.35 GHz</u>	<u>45</u>	<u>30</u>
<u>15.35-15.4 GHz</u>	Not permitted	
<u>15.4-23.6 GHz</u>	<u>45</u>	<u>30</u>
23.6-24 GHz	Not permitted	
<u>24-31.3 GHz</u>	<u>45</u>	<u>30</u>
<u>31.3-31.5 GHz</u>	Not permitted	
<u>31.5-50.2 GHz</u>	<u>45</u>	<u>30</u>
50.2-50.4 GHz	Not permitted	
50.4-52.6 GHz	<u>45</u>	<u>30</u>
52.6-54.25 GHz	Not permitted	
54.25-86 GHz	<u>45</u>	<u>30</u>
<u>86-92 GHz</u>	Not permitted	
<u>92-100 GHz</u>	<u>45</u>	<u>30</u>
<u>100-102 GHz</u>	Not permitted	
<u>102-109.5 GHz</u>	<u>45</u>	<u>30</u>
<u>109.5-111.8 GHz</u>	Not permitted	
<u>111.8-114.25 GHz</u>	<u>45</u>	<u>30</u>
<u>114.25-116 GHz</u>	Not permitted	
<u>116-148.5 GHz</u>	<u>45</u>	<u>30</u>
<u>148.5-151.5 GHz</u>	Not permitted	
<u>151.5-164 GHz</u>	<u>45</u>	<u>30</u>
<u>164-167 GHz</u>	Not permitted	

Frequency band	Limit for maximum field strength (dBµV/m)	Distance at which measurement taken (m)
<u>167-182 GHz</u>	<u>45</u>	<u>30</u>
<u>182-185 GHz</u>	Not permitted	
<u>185-190 GHz</u>	<u>45</u>	<u>30</u>
<u>190-191.8 GHz</u>	Not permitted	
<u>191.8-200 GHz</u>	<u>45</u>	<u>30</u>
<u>200-209 GHz</u>	Not permitted	
<u>209-226 GHz</u>	<u>45</u>	<u>30</u>
<u>226-231.5 GHz</u>	Not permitted	
<u>231.5-250 GHz</u>	<u>45</u>	<u>30</u>
<u>250-252 GHz</u>	Not permitted	
<u>252-275 GHz</u>	<u>45</u>	<u>30</u>

8.12 In addition, we propose that the equipment would also be subject to the existing limits on spurious emissions set out in the 1989 Regulations and set out in Table 19 below. Spurious emissions are the unwanted emissions that occur outside of the main frequency it is supposed to be using. These include harmonics, parasitic signals, intermodulation and frequency conversion products.

Table 19: Unwanted emission limits

Frequency band (MHz)	Limit for maximum field strength (dBμV/m)	Distance at which measurement taken (m)
Below 30	23	100
30 and above	23	30

- 8.13 Finally, regulation 7 of the 1989 Regulations requires anyone relying on the exemption to conduct such measurements as are reasonably necessary to ascertain that the limits are being adhered to. We propose that this requirement also be applied to the new frequency bands.
- 8.14 We believe the proposed regulations are clear that operators are not permitted to transmit in the ITU designated 'quiet bands'. If operators do not comply with this requirement, or other requirements set out in the proposed licence exemption, they will be in breach of the regulations prompting Ofcom to take enforcement action in accordance with our published <u>Approach to spectrum compliance and enforcement</u>. In such cases Ofcom will determine the most appropriate and proportionate approach to ensure compliance with the rules.

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.

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.

Question 13: Do you have any other comments on our proposals to make amendments to the licence exemptions for this testing equipment?

9. Amateur Radio (Full) (Temporary Reciprocal)

- 9.1 Below we set out proposals to extend the existing licence exemption for visiting radio amateurs to include those on short visits from a foreign country with which the UK has a bilateral reciprocal licensing agreement.
- 9.2 Amateur radio, sometimes known as ham radio, has been an important part of wireless communication technology in the UK for more than a century. It is a hobby that involves the use of radio equipment to communicate with other amateur radio operators around the world. It is a non-commercial service designed for self-training and technical experimentation. UK based radio amateurs are authorised to transmit via a WT Act licence.
- 9.3 Radio amateurs sometimes travel overseas and wish to partake in their hobby. In 1985, to help reduce the administrative burden when visiting another country for a short period of time, the CEPT introduced <u>CEPT Recommendation T/R 61-01</u> (the "CEPT Recommendation"). This allows radio amateurs, with a licence from those countries that are signatories to the CEPT Recommendation, to operate their equipment for a short period of time in another CEPT country without obtaining an individual licence in that second country. In the UK, we made such use exempt under the <u>Wireless Telegraphy</u> (Reciprocal Exemption of European Radio Amateurs) Regulations 1988 (the "Visiting Amateur Regulations").
- 9.4 In December 2023 we published a <u>statement</u> which set out a number of changes to the amateur radio licensing framework. This included overhauling the existing licence terms and replacing them with the <u>Amateur Radio Licence Conditions Booklet</u> that all UK licensed amateurs must adhere to. Our statement confirmed that we would update the Visiting Amateur Regulations so that they reference these <u>new licence terms and conditions</u>.
- 9.5 The Visiting Amateur Regulations only exempt the use of equipment by radio amateurs from countries that are signatories of the CEPT Recommendation. When amateurs visit the UK from countries not covered by the Visiting Amateur Regulations and wish to temporarily operate in the UK they must apply for an Amateur Radio (Full) (Temporary Reciprocal) licence, even where the UK has a bilateral reciprocal licensing agreement. This temporary licence is valid for a period of up to six months (renewable for a further six months). We currently issue fewer than ten such licences per year.
- 9.6 A list of the countries with whom the UK has a bilateral reciprocal agreement is set out in Table 20 below.

Table 20: List of countries with whom the UK has a bilateral agreement

Country and licence level

·····, · · · · · · · · · · · · · · · ·	
<u>Bermuda - Advanced</u>	Papua New Guinea - Full (call signs in P29 series)
Botswana - All Licences	Pitcairn Island - Full
<u>Brazil - A</u>	<u>Qatar - General</u>

Country and licence level

Dominican Republic - Dominican Licence	Sierra Leone - Class A
<u>Gibraltar - A B</u>	<u> Sri Lanka – Advanced or General</u>
India - Advanced or Grade 1	Thailand - Intermediate
Kenya - Kenyan Licence	Trinidad & Tobago - General
Malaysia - Malaysia Licence	<u> Vanuatu - Vanuatuan</u>
<u>Namibia - General</u>	<u>Zimbabwe - Full</u>

- 9.7 As part of our licensing simplification programme, we have reviewed the scope of the Amateur Radio (Full) (Temporary Reciprocal) licence. For the purposes of permitting the temporary operation in the UK, Ofcom recognises equally the qualifications granted by signatories of the CEPT Recommendation and those countries with which the UK has a bilaterial reciprocal agreement. We see no reason why we should treat those visiting from these countries differently when visiting the UK on a short-term basis. We are therefore proposing to exempt the establishment, installation and use of relevant amateur stations for radio amateurs visiting on a short-term basis from those countries with whom the UK has a bilateral reciprocal agreement. We are proposing they be subject to the same conditions as apply to those visiting from countries who are signatories to the CEPT Recommendation.
- 9.8 The Visiting Amateur Regulations do not include any particular duration for a maximum length of visit and the CEPT Recommendation states only that it covers "short visits". Ofcom's <u>Amateur Radio Guidance</u>, and our long-standing policy, has been that the exemption only applies for three months. The three-month period comes from <u>CEPT</u> <u>Recommendation T/R 61-02</u> which states that signatories to the recommendation should issue licences to those who stay in their country for a period longer than three months.
- 9.9 As part of these proposals to licence-exempt the use of equipment by radio amateurs from countries where the UK has a bilaterial reciprocal agreement, we are proposing to apply the same three-month maximum visit duration. After this period, if a visiting radio amateur wishes to continue operating in the UK they must apply for an Amateur Radio (Full) licence from Ofcom. For visitors from countries where the UK has a bilateral agreement this would reduce the time they could operate in the UK before which they would need to apply for a UK licence, as compared to the current 6-month licences (renewable once up to a year). However, at that point the visiting amateurs would be subject to the same process as those signed up to the CEPT Recommendation and would need to apply for an Amateur Radio (Full) licence.
- 9.10 Visiting radio amateurs who stay for less than three months would have the benefits of not needing to apply for an Amateur Radio (Full) (Temporary Reciprocal) licence and pay the £20 administrative cost. For those planning on staying longer than three months, although they would need to apply for an Amateur Radio (Full) licence, this would not impose any additional administrative burden or cost compared with the current process of obtaining an Amateur Radio (Full) (Temporary Reciprocal) licence.

- 9.11 Whilst we recognise that the radio equipment used by amateurs can transmit at high power levels (up to 1kW), and therefore could cause interference, we nonetheless consider it is right to exercise our discretion to exempt the equipment for this group of users. Radio amateurs need to pass an exam to operate at this level, and as such we believe that the risk of any interference caused by visiting amateurs is mitigated. The frequencies and technical limits are already used by UK licensed radio amateurs and those from countries who are signatures of the CEPT Recommendation.
- 9.12 We see no reason why radio amateurs visiting from countries that the UK has a bilateral agreement with should be treated differently from those who are signatories of the CEPT Recommendation. Therefore, we believe it is appropriate to permit the use of this equipment on a temporary basis under our licence exemption regulations.

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?

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.

10. 5.8 GHz (5725–5850 MHz) Fixed Wireless Access (FWA)

- 10.1 In this section we explain our proposal to introduce new licence exempt use of Fixed Wireless Access (FWA) equipment in 5725-5850 MHz (the '5.8 GHz band C').
- 10.2 FWA equipment is used to provide point to point / point to multipoint and data links and is used by many wireless internet service providers (WISPs) to provide rural connectivity. FWA use in the 5.8 GHz band C currently requires a licence. The FWA licence enables the licensee to deploy equipment anywhere in the UK but requires each piece of equipment that is deployed to be registered with Ofcom. One licence can cover an unlimited number of pieces of equipment. An annual fee of £1 is charged per terminal, subject to a minimum fee of £50 per licence. There are currently 50 FWA licences on issue that authorise a total of 1070 pieces of equipment.
- 10.3 Interface Requirement 2007 (IR2007) sets out the technical conditions for use of the 5.8 GHz band C and is referred to in FWA licences. IR2007 restricts the transmission power limit to 4W and requires that the equipment must use Dynamic Frequency Selection (DFS) to avoid interference with radars.¹⁰
- 10.4 We decided to use a 'light' licensing approach for FWA in the 5725-5850 MHz range primarily due to the risk of the equipment causing interference to UK military radar equipment, the primary user of the spectrum. A licensing regime allowed us to create exclusion zones where military radar was present. However, since 2003 no exclusion zones have been established and we have had no reports of interference to military radars. The band is also shared with Amateur Radio and Amateur satellite services (space-to-Earth links in 5830-5850 MHz) who also have access to the spectrum on a non-interference basis. Weather radars also operate in 5600-5650 MHz which is below this band.
- 10.5 Given there has been no reported interference with other users of the band, we now believe that licence-exempt use of this equipment can be introduced, subject still to the requirement that the equipment use Dynamic Frequency Selection (DFS). There remains a very low risk of interference to radars if FWA equipment is deployed in very close proximity to the radars. However, we do not believe that this is likely to occur as the areas around these radars are controlled by the Ministry of Defence who have responsibility for deployment of equipment at these locations. A requirement of licence exemptions is the requirement for equipment not to cause undue interference; if there were to be interference to military radars Ofcom would expect to take steps to resolve the issue.
- 10.6 By implementing our exemption proposals, the 50 current licensees will not need a licence to use their equipment in this spectrum band which will be a financial saving for these operators and others using this equipment in the future. It will also remove the administrative burden as equipment users will no longer need to register their equipment with Ofcom. However, equipment users would still be required to follow all existing

¹⁰ DFS is a means of protecting radars operating in the 5 GHz band. The system detects transmissions from the radars and requires Wi-Fi devices to switch to a different channel if they detect co-channel radar pulses.

technical standards for operating in this band, as set out in Table 21 below, thereby minimising the risk of interference to other users in the band.

10.7 We propose therefore to exercise our discretion to exempt FWA equipment, subject to the same technical conditions as currently apply in IR2007. These provisions are set out below in Table 21.

Table 21: Existing technical conditions for Fixed Wireless Access (FWA) in 5.8 GHz

Parameter	Description
Frequency bands	5725–5850 MHz
	Maximum mean e.i.r.p. of 4W
	Maximum mean e.i.r.p. density of 23dBm/MHz*
Transmit power/power density	* The EIRP spectral density of the transmitter emissions should not exceed the following values for the elevation angle θ (degrees) above the local horizontal plane (of the Earth):
	For sectorised (e.g. P-MP Central or Base Station) and Omni- directional deployments: −7 dB(W/MHz) for 0° ≤ θ 15°
	For P-MP Customer Terminal Station and P-P deployments: -7 dB(W/MHz) for $0^{\circ} \le \theta < 32^{\circ} -20$ dB(W/MHz) for $32^{\circ} \le \theta \le 50^{\circ} -10$ - (0.2* θ) dB(W/MHz) for $\theta > 50^{\circ}$
	Examples are provided in ECC Report 68 to demonstrate that these limits can comfortably be achieved using typical antenna radiation pattern envelopes.
Frequency planning assumptions	Dynamic Frequency Selection (DFS) and Transmit Power Control (TPC) is assumed to be implemented as specified in ETSI harmonised European standard EN 302 502.

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.

A1. Legislative framework

- A1.1 Ofcom is responsible for authorising and managing use of the radio spectrum in the UK. This is a limited and valuable resource, and one of our main duties is to secure its optimal use. We achieve this by granting wireless telegraphy licences under the WT Act or by making statutory regulations exempting users of particular equipment from the requirement to hold such a licence.
- A1.2 Under section 8 (1) of the WT Act, it is unlawful to establish or use a wireless telegraphy station or install or use wireless telegraphy apparatus except under and in accordance with a wireless telegraphy licence granted under the WT Act.
- A1.3 However, under section 8 (3) of that Act, Ofcom may make regulations exempting from the licensing requirements under section 8 (1) the establishment, installation or use of wireless telegraphy stations or wireless telegraphy apparatus of such classes or description as may be specified in the regulations, either absolutely or subject to such terms, provisions and limitations as may be specified.
- A1.4 Under section 8(4) of the WT Act, Ofcom must make regulations to exempt equipment if its installation or use meets the conditions under section 8(5) of the WT Act and is not likely to:
 - involve undue interference with wireless telegraphy;
 - have an adverse effect on technical quality of service;
 - lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
 - inhibit the development of effective arrangements for the sharing of frequencies;
 - endanger safety of life;
 - prejudice the promotion of social, regional or territorial cohesion; or
 - prejudice the promotion of cultural and linguistic diversity and media pluralism.
- A1.5 In accordance with the requirements of section 8(3B) of the WT Act, the terms, provisions and limitations specified in the regulations must be:
 - objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate;
 - not such as to discriminate unduly against particular persons or against a particular description of persons;
 - proportionate to what they are intended to achieve; and
 - transparent in relation to what they are intended to achieve.
- A1.6 Before making any exemption regulations, we are required by section 122(4) of the WT Act to give statutory notice of our proposal to do so. Under section 122(5), such notice must state that we propose to make the regulations in question, set out their general effect, specify an address from which a copy of the proposed regulations may be obtained, and specify a time period of at least one month during which any representations with respect to the proposal must be made to us.

A2. Impact assessment

Impact Assessment

- A2.1 Section 7 of the <u>Communications Act 2003</u> requires us to carry out and publish an assessment of the likely impact of implementing a proposal which would be likely to have a significant impact on businesses or the general public, or when there is a major change in Ofcom's activities.
- A2.2 More generally, impact assessments form part of good policy making and we therefore expect to carry them out in relation to a large majority of our proposals. We use impact assessments to help us understand and assess the potential impact of our policy decisions before we make them. They also help us explain the policy decisions we have decided to take and why we consider those decisions best fulfil our applicable duties and objectives in the least intrusive way. Our <u>impact assessment guidance</u> sets out our general approach to how we assess and present the impact of our proposed decisions.
- A2.3 In preparing this document, we have considered the citizen and consumer interests relating to licence-exempt equipment. We have also considered the impact on service providers, manufacturers and users of devices and applications and we believe the benefits that we have identified will promote economic growth. We have taken into account our statutory duties, including our statutory duties in section 3¹¹ and section 6 of the WT Act. We consider that these licence exemption proposals, taken as a whole, will help us to meet our statutory duties in relation to the management of spectrum and our more general duties to further the interests of citizens and consumers. We note, in this regard, that the proposals will variously:
 - a) support the introduction of new and innovative technologies that will be of benefit to consumers and citizens in general;
 - expand the use of radio equipment on a licence-exempt basis, which reduces the regulatory and administrative burden on our stakeholders and helps to secure the optimal use of spectrum; and
 - c) in some cases, would align our exemption criteria with other European countries so that manufacturers are able to benefit from economies of scale which should then lead to lower prices and increased choice and range of equipment available for UK citizens and consumers.
- A2.4 We set out in the next section some additional benefits for those with protected characteristics.
- A2.5 In each case we have considered and set out the extent to which the proposals may adversely impact on other spectrum users. We have applied technical conditions that seek to mitigate and minimise the potential risks to other users and have provisionally concluded that the benefits of the proposed new exemptions or amendments to existing exemptions outweigh any residual risks.

¹¹ In particular, but not exclusively, Ofcom's duty to have regard to the extent to which spectrum is available for use or further use for wireless telegraphy; and Ofcom's duty to have regard to the desirability of promoting the efficient management and use of spectrum; the economic and other benefits that may arise from the use of wireless telegraphy and the development of innovative services.

Equality Impact Assessment

- A2.6 We have given careful consideration to whether our proposals will have a particular impact on persons sharing protected characteristics (broadly including race, age, disability, sex, sexual orientation, gender reassignment, pregnancy and maternity, marriage and civil partnership and religion or belief in the UK and also dependents and political opinion in Northern Ireland), and in particular whether they may discriminate against such persons or impact on equality of opportunity or good relations. This assessment helps us comply with our duties under the <u>Equality Act 2010</u> and the Northern Ireland Act 1998.¹²
- A2.7 When thinking about equality we think more broadly than persons that share protected characteristics identified in equalities legislation and think about potential impacts on various groups of persons (see paragraph 4.7 of our <u>impact assessment guidance</u>).
- A2.8 In particular, section 3(4) of the Communications Act also requires us to have regard to the needs and interests of specific groups of persons when performing our duties, as appear to us to be relevant in the circumstances. These include:
 - a) the vulnerability of children and of others whose circumstances appear to us to put them in need of special protection;
 - b) the needs of persons with disabilities, older persons and persons on low incomes; and
 - c) the different interests of persons in the different parts of the UK, of the different ethnic communities within the UK and of persons living in rural and in urban areas.
- A2.9 We consider that some of our proposals would be of particular benefit to some persons who may be older or who are disabled. This is because the technical conditions that we are proposing in relation to certain Short Range Devices (SRDs), such as Assistive Listening Devices (ALDs), aim to enhance the performance, reliability, and compatibility of audio equipment, ensuring users with a hearing impairment have a better experience with fewer issues related to interference and signal quality.
- A2.10 Proposed updates to the conditions for licence exempt use for other SRDs such as Active Medical Implants (which uses include monitoring health conditions) and Reliable Alarm Devices (which support communications systems, including to assist elderly or disabled people in distress) should ensure greater clarity on how the equipment should be used in their respective spectrum bands. The updates will also guarantee coexistence with other SRD applications and therefore ensure a lower risk of interference when operating the equipment.
- A2.11 We do not consider that our proposals will have any adverse impacts on any specific groups of persons in a different way to the general population.

¹² Section 75 of the Northern Ireland Act 1998

Welsh Language Assessment

- A2.12 Ofcom is required to take Welsh language considerations into account when formulating, reviewing, or revising policies which are relevant to Wales (including proposals which are not targeted at Wales specifically but are of interest across the UK).¹³
- A2.13 We do not consider our proposed changes, if implemented, would have any impact on opportunities for persons to use the Welsh language or treat the Welsh language less favourably than the English language. We also do not think there are ways in which our proposals could be formulated to have, or increase, a positive impact, or, not have adverse effects or decrease any adverse effects.

¹³ See Standards 84 – 89 of <u>Hysbysiad cydymffurfio</u> (in Welsh) and <u>compliance notice</u> (in English). Section 7 of the Welsh Language Commissioner's <u>Good Practice Advice Document</u> provides further advice and information on how bodies must comply with the Welsh Language Standards.

A3. Consultation questions

A3.1 We invite responses to the following questions we have asked in this consultation.

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.

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.

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.

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.

Question 5: Do you have any additional comments on our proposed changes to the licence exemption for SRD equipment?

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.

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.

Question 8: Do you have any additional comments on our proposed changes to the licence exemption for UWB equipment?

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.

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.

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.

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.

Question 13: Do you have any other comments on our proposals to make amendments to the licence exemptions for this testing equipment?

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?

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.

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.

A4. Responding to this consultation

How to respond

- A4.1 Of com would like to receive views and comments on the issues raised in this document, by **5pm on Friday 28 March 2025**.
- A4.2 You can download a response form <u>here</u>. You can return this by email or post to the address provided in the response form.
- A4.3 If your response is a large file, or has supporting charts, tables or other data, please email it to regulations@ofcom.org.uk, as an attachment in Microsoft Word format, together with the cover sheet.
- A4.4 Responses may alternatively be posted to the address below, marked with the title of the consultation:

Updating Wireless Telegraphy Exemptions Ofcom Riverside House 2A Southwark Bridge Road London SE1 9HA

- A4.5 We welcome responses in formats other than print, for example an audio recording or a British Sign Language video. To respond in BSL:
 - send us a recording of you signing your response. This should be no longer than 5 minutes. Suitable file formats are DVDs, wmv or QuickTime files; or
 - upload a video of you signing your response directly to YouTube (or another hosting site) and send us the link.
- A4.6 We will publish a transcript of any audio or video responses we receive (unless your response is confidential)
- A4.7 We do not need a paper copy of your response as well as an electronic version. We will acknowledge receipt of a response submitted to us by email.
- A4.8 You do not have to answer all the questions in the consultation if you do not have a view; a short response on just one point is fine. We also welcome joint responses.
- A4.9 It would be helpful if your response could include direct answers to the questions asked in the consultation document. The questions are listed at Annex X. It would also help if you could explain why you hold your views, and what you think the effect of Ofcom's proposals would be.
- A4.10 If you want to discuss the issues and questions raised in this consultation, please contact <u>regulations@ofcom.org.uk</u>.

Confidentiality

- A4.11 Consultations are more effective if we publish the responses before the consultation period closes. This can help people and organisations with limited resources or familiarity with the issues to respond in a more informed way. So, in the interests of transparency and good regulatory practice, and because we believe it is important that everyone who is interested in an issue can see other respondents' views, we usually publish responses on the Ofcom website at regular intervals during and after the consultation period.
- A4.12 If you think your response should be kept confidential, please specify which part(s) this applies to and explain why. Please send any confidential sections as a separate annex. If you want your name, address, other contact details or job title to remain confidential, please provide them only in the cover sheet, so that we don't have to edit your response.
- A4.13 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and try to respect it. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A4.14 To fulfil our pre-disclosure duty, we may share a copy of your response with the relevant government department before we publish it on our website.
- A4.15 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's intellectual property rights are explained further in our Terms of Use.

Next steps

- A4.16 Following this consultation period, Ofcom plans to publish its final policy decisions in June 2025 and to thereafter consult on regulations to implement those decisions.
- A4.17 If you wish, you can register to receive mail updates alerting you to new Ofcom publications.

Ofcom's consultation processes

- A4.18 Of com aims to make responding to a consultation as easy as possible. For more information, please see our consultation principles in Annex x.
- A4.19 If you have any comments or suggestions on how we manage our consultations, please email us at consult@ofcom.org.uk. We particularly welcome ideas on how Ofcom could more effectively seek the views of groups or individuals, such as small businesses and residential consumers, who are less likely to give their opinions through a formal consultation.
- A4.20 If you would like to discuss these issues, or Ofcom's consultation processes more generally, please contact the corporation secretary:
- A4.21 Corporation Secretary Ofcom Riverside House 2a Southwark Bridge Road London SE1 9HA Email: <u>corporationsecretary@ofcom.org.uk</u>

A5. Ofcom's consultation principles

Of com has seven principles that it follows for every public written consultation:

Before the consultation

A5.1 Wherever possible, we will hold informal talks with people and organisations before announcing a big consultation, to find out whether we are thinking along the right lines. If we do not have enough time to do this, we will hold an open meeting to explain our proposals, shortly after announcing the consultation.

During the consultation

- A5.2 We will be clear about whom we are consulting, why, on what questions and for how long.
- A5.3 We will make the consultation document as short and simple as possible, with an overview of no more than two pages. We will try to make it as easy as possible for people to give us a written response.
- A5.4 We will consult for up to ten weeks, depending on the potential impact of our proposals.
- A5.5 A person within Ofcom will be in charge of making sure we follow our own guidelines and aim to reach the largest possible number of people and organisations who may be interested in the outcome of our decisions. Ofcom's Consultation Champion is the main person to contact if you have views on the way we run our consultations.
- A5.6 If we are not able to follow any of these seven principles, we will explain why.

After the consultation

A5.7 We think it is important that everyone who is interested in an issue can see other people's views, so we usually publish the responses on our website at regular intervals during and after the consultation period. After the consultation we will make our decisions and publish a statement explaining what we are going to do, and why, showing how respondents' views helped to shape these decisions.

A6. Consultation coversheet

Basic details

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

Confidentiality

Please tick below what part of your response you consider is confidential, giving your reasons why

- Nothing
- Name/contact details/job title
- Whole response
- Organisation
- Part of the response

If you selected 'Part of the response', please specify which parts:

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

Yes 🗆 🛛 No 🗆

Declaration

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom aims to publish responses at regular intervals during and after the consultation period. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Signed (if hard copy)

Name