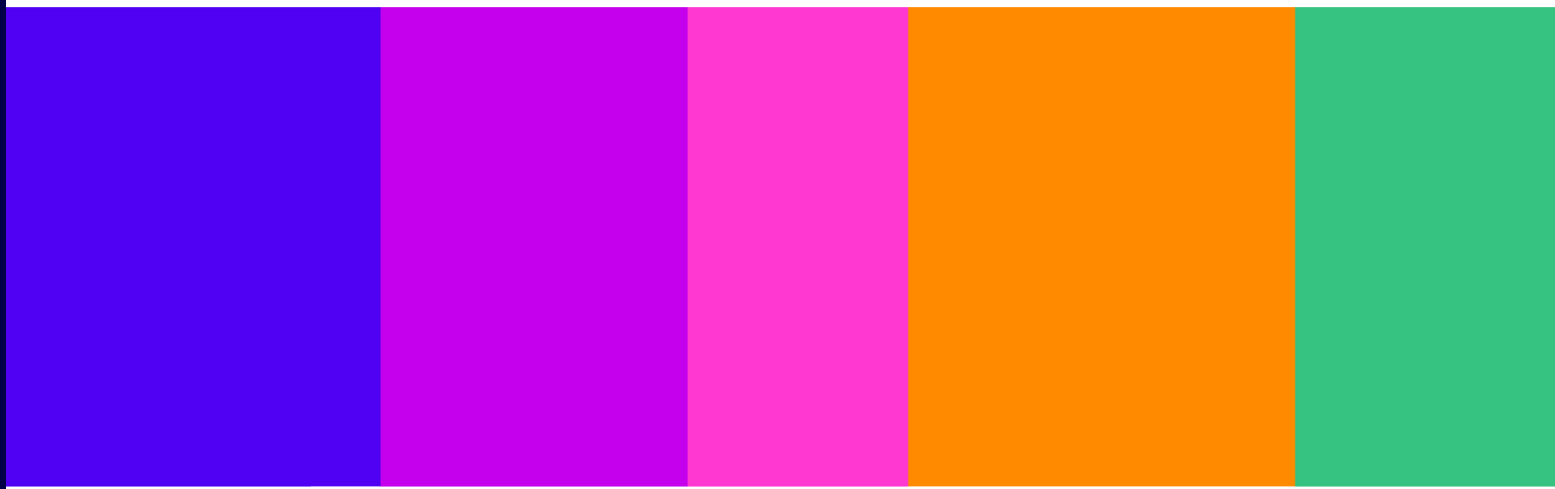


FRMCS licence application guidance

Guidance for FRMCS licence applicants

Guidance document

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1. Overview

1.1 About this document

This guidance document provides information on how to apply for an FRMCS licence in the 1900–1910 MHz band in the UK.

From time to time this document may be amended or updated. This guidance is not intended to be relied upon as legal advice, nor does Ofcom give advice to licensees on individual cases. Licensees should seek their own independent advice to ensure compliance with the terms and conditions of their licence.

1.2 What is FRMCS?

1.2.1 Background

The Future Railway Mobile Communication System (FRMCS) is the 5G-based replacement for GSM-R, the system which currently provides operational communications on the railways, based on 2G mobile, and which is expected to become obsolete around 2035.¹ FRMCS will support voice communications between the train driver and signaller, as well as support greater use of data, including enabling digital signalling and live CCTV video from trains to boost safety and improve fault monitoring.

In 2020, the European Conference of Postal and Telecommunications Administrations (CEPT) approved ECC Decision 20(02), harmonising the use of different spectrum bands for FRMCS. In October 2025, Ofcom [confirmed its decision](#) to authorise FRMCS in 1900–1910 MHz throughout the UK.

1.2.2 The FRMCS licence

The FRMCS licence authorises use of the 1900–1910 MHz spectrum in accordance with the licence terms and conditions. Schedule 1 of the FRMCS licence contains the terms and conditions of the licence, Schedule 2 displays details such as location and route length of the network, and Schedule 3 contains the EMF licence conditions.

A template FRMCS licence is available [on the Ofcom website](#).

¹ UIC, [“What is FRMCS, the Future Railway Mobile Communications System?”](#), accessed 3 September 2026

2. How to apply for a licence

2.1 Application process

An FRMCS licence permits you to provide FRMCS services in the 1900–1910 MHz band across your rail network.² To apply for a licence, email spectrum.licensing@ofcom.org.uk with the following information:

- A declaration that you intend to use the licence for operational rail business only;
- If your planned network overlaps with, or is next to, an existing FRMCS licensee's network: evidence of plans or discussions between you and the relevant FRMCS licensee(s) that demonstrate your ability to coordinate your networks;
- The geographic scope of the network to be covered by the licence; and
- The total length of route (in miles) on which you plan to deploy FRMCS.

If needed, Ofcom will liaise with the licensee to obtain all relevant information. Below, we provide further detail on each of these requirements.

2.2 Operational rail business

For the purposes of the FRMCS licence, we expect the term “operational rail business” to include mission-critical FRMCS railway communications services such as voice and data communication, signalling and CCTV video from trains, subsystems and applications which are necessary to support the safe and effective management of train services in the UK.³

We would typically expect the term to cover onboard communications by train operators and trackside applications. It might also include auxiliary services, such as on-train retail systems to improve payment processing, but we would not expect this type of business use to take priority over mission-critical use.

We would not expect the spectrum to be used to provide connectivity services directly to passengers (e.g., supporting an on-board Wi-Fi service) as this would not be consistent with operational rail business use, and there is likely to be insufficient bandwidth (10 MHz) to support such services alongside mission-critical use.

2.3 Coordination with other licensees

Where relevant, evidence of engagement with other FRMCS licensees may include:

- A letter signed by all relevant licensees; and/or
- An email exchange between relevant licensees.

² For clarity, the geographic scope of the licence will be specified in Schedule 2 of the licence.

³ To help inform our term, we have taken account of the [International Union of Railways \(UIC\)](#) definition of “Operational”.

2.4 Scope and size of the network

2.4.1 Geographic scope

The geographic scope of the licence will be agreed between Ofcom and the licensee and determined on a case-by-case basis, based on the information provided by applicants about the location of their rail infrastructure. The location of the rail infrastructure could be provided by the applicant as:

- One or more nation(s) or region(s) of the UK;
- A geometric shape based on map coordinates; or
- A reference to a specific route or piece of infrastructure.

Once agreed, licensees will be able to deploy FRMCS anywhere within the geographic area of the licence, subject to coordination with any nearby licensees. Note, that the licence will not grant exclusive spectrum access to the licensee across the whole of the authorised area, allowing for potentially overlapping licences.

2.4.2 Route length

As part of an application for an FRMCS licence, we also require information regarding the route length of the network, which we record in miles. This should be based on the route kilometres figure which you provide to the Office for Rail and Road or Department for Transport. This will be to inform the annual licence fee for your FRMCS licence. See section 8 of our [October 2025 statement](#) where we confirmed how we would approach fees (in particular Table 8.2) for more information on how the licence fee will be calculated for networks which do not cover all of Great Britain or Northern Ireland.

3. Varying your licence and keeping Ofcom informed

Ofcom may vary licences occasionally. This may be at the request of the licensee or where Ofcom wishes to make a change.⁴ Licensee-requested variations include potential changes to:

- Customer details, e.g., a request to change the administrative details of the licensee.
- Technical details, e.g., a request for an additional service.
- Geographic scope of the licence, e.g., due to the extension of a railway line. This may require new evidence of engagement with any licensees in adjacent and overlapping areas, as well as information about any change to the route length (see below).

3.1 Changes to route length

You must inform Ofcom of any changes to the total route length covered by an FRMCS licence, if this change would result in an increase or a decrease in the total route length, rounded up to the nearest 100 miles. Such changes in route length could result to changes in your annual licence fee.

For example, you would need to inform Ofcom if the total route length covered by your licence increased from 250 miles to 305 miles, but not if it increased from 250 miles to 290 miles. If the route length were to decrease from 250 miles to 199 miles, you should also inform Ofcom, as this would reduce your fee. Any fee changes would be effective from the date on which the annual fee next falls due.

Any such variation request will be subject to evaluation by Ofcom.

⁴ Any licence variation initiated by Ofcom would be made subject to the procedure set out in Schedule 1 of the Wireless Telegraphy Act 2006 which includes specifying the reasons for the variation by way of consultation. Any variation must be objectively justifiable.