



# **UK Radio Interface Requirement 2008**

## **Private Business Radio Channel Access Procedures**

**(Version 1.2)**

98/34/EC Notification Number:

**Published:** 11 April 2003

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## **1. Foreword**

- 1.1 The Radio Equipment and Telecommunications Terminal Equipment Directive 99/5/EC (R&TTE Directive) was implemented in the United Kingdom (UK) on the 8 April 2000 by The Radio Equipment and Telecommunications Terminal Equipment Regulations, Statutory Instrument (SI) [730]. In accordance with Articles 4.1 and 7.2 of Directive 1999/5/EC, this UK Radio Interface Requirement contains the requirements for the licensing and use of private business mobile radio systems in the specified frequency bands.
- 1.2 Nothing in this UK Radio Interface Requirement shall preclude the need for equipment to comply with the requirements of Directive 1999/5/EC.
- 1.3 It is required by the Wireless Telegraphy Act 1949 that no radio equipment shall be installed or used in the UK, except under the authority of a licence granted (or license exempted) by the Secretary of State. It is a condition of such a licence (or exemption order) that the equipment must meet the minimum requirements specified in this UK Radio Interface Requirement for the stated equipment types and for the stated frequency bands.
- 1.4 The criteria given in the main body of this UK Radio Interface Requirement will apply in the licensing of radio channels for private business mobile radio in the UK. All frequency bands administered by the RA in the UK for PBR are covered.
- 1.5 This UK Radio Interface Requirement will be revised as necessary, for example to follow:
  - i) current technology developments for reasons related to the effective and appropriate use of the spectrum in particular maximising spectrum utilisation; and
  - ii) changes to the available spectrum allocated for private business mobile radio systems.
- 1.6 All UK Radio Interface Requirements notified under Directive 98/34/EC will be published. All approved documentation will be made available free of charge from the RA Information and Library Service and/or the RA web-site. The addresses for both the Library and the web-site are given on the back cover of this document.
- 1.7 Further information on this UK Radio Interface Requirement can be obtained from the technical enquiry contact given on the back of this document.

## **2. Radio channel Access Requirements for Operation within the UK**

- 2.1 The radio channel access requirements in this document are made for reasons related to the effective and appropriate use of the radio spectrum.
- 2.2 This UK Radio Interface Requirement stipulates the necessary channel access parameters for the licensing of PBR systems in the UK.
- 2.3 The technical parameters specified in this UK Radio Interface Requirement are applied to achieve the desired level of compatibility whilst promoting enterprise, innovation and competition.
- 2.4 The Annexes A & B to this document constitute separate channel access procedures for different types of service, which are listed below:

Annex A - 250ms Time Division Multiple Access (TDMA) Channel Access Procedure for Data Only Shared Wide Area PBR Channels

Annex B - 500ms Time Division Multiple Access (TDMA) Channel Access Procedure for Data Only Shared Wide Area PBR Channels

# Annex A

## 1. 250ms Time Division Multiple Access (TDMA) Channel Access Procedure for Data Only Shared Wide Area PBR Channels

### 1.1. Operational Requirements

These licensing requirements are mandatory for operators wishing to operate these services.

### 1.2. TDMA Frame Raster

The frame duration is 2s and consists of eight, 250ms slots. See Figure 1.

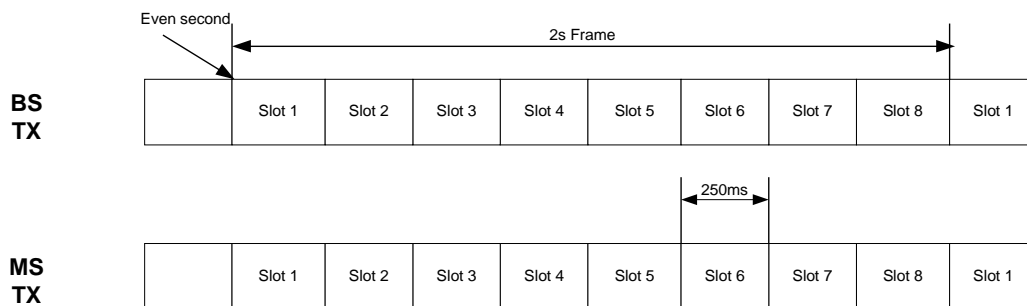


Figure 1.

### 1.3. Synchronisation and Timing

The timing reference shall be derived from Co-ordinated Universal Time (UTC) to an accuracy of  $\pm 1\text{ms}$ .

Within a Base Station (BS) frame the first 250ms slot will commence on an even second. (For example: 11hr 35min 22.000 seconds or 11hr 35min 24.000 seconds).

Within a Mobile Station (MS) frame the first 250ms slot will commence on an even second. (For example: 11hr 35min 22.000 seconds or 11hr 35min 24.000 seconds).

### 1.4. Transmission Initiation

Base Station or Mobile Station transmissions may be initiated either manually or automatically.

## Annex B

### 1. 500ms Time Division Multiple Access (TDMA) Channel Access Procedure for Data Only Shared Wide Area PBR Channels

#### 1.1. Technical Requirements

These licensing requirements are mandatory for operators wishing to operate these services.

#### 1.2. TDMA Frame Raster

The frame duration is 4s and consists of eight, 500ms slots. See Figure 1.

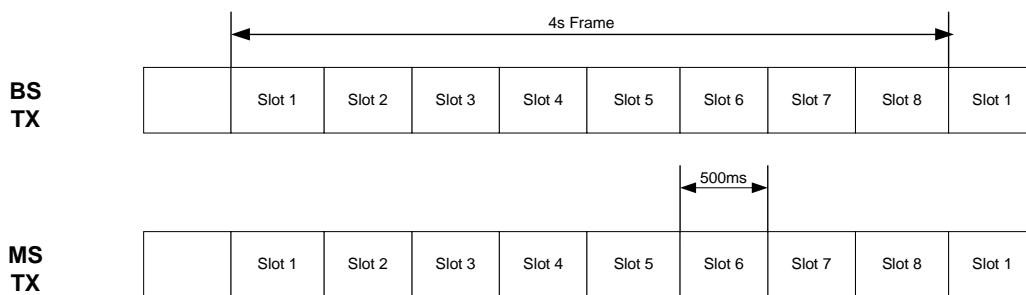


Figure 1.

#### 1.3. Synchronisation and Timing

The timing reference shall be derived from Co-ordinated Universal Time (UTC) to an accuracy of  $\pm 1$ ms.

Within a Base Station (BS) frame the first 500ms slot will commence on a multiple of 4 seconds. (For example: 11hr 35min 0.000 seconds or 11hr 35min 4.000 seconds).

Within a Mobile Station (MS) frame the first 500ms slot will commence on a multiple of 4 seconds. (For example: 11hr 35min 0.000 seconds or 11hr 35min 4.000 seconds).

#### 1.4. Transmission Initiation

Base Station or Mobile Station transmissions may be initiated either manually or automatically.

## Document history

Draft	Date	Changes
1.2	April 2003	Amendment to timing diagrams

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This is a UK Radio Interface Requirement