



UK Radio Interface Requirement 2004 Private Business Mobile Radio (TETRA)

(Version 1.0)

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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 licence 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 private business TETRA 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. Minimum Equipment Requirements for Operation within the UK

- 2.1 The minimum radio requirements in this document are made for reasons related to the effective and appropriate use of the radio spectrum, in particular maximising spectrum utilisation.
- 2.2 This UK Radio Interface Requirement gives a high level description of how the spectrum in the UK is used for private business TETRA mobile radio systems. It does not prescribe a technical interpretation of the 'essential requirements' of Directive 1999/5/EC.
- 2.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the licensing of private business TETRA mobile radio equipment in the UK. Table 2.1 contains the relevant equipment parameters. These together with the 'essential requirement' detailed in Article 3.2 of the Directive 1999/5/EC constitute the minimum equipment requirements for private business mobile radio equipment within the UK.
- 2.4 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility within the TETRA Service and with other radiocommunications services whilst promoting enterprise, innovation and competition.
- 2.5 This UK Radio Interface Requirement provides the necessary technical information, which facilitates access to the TETRA Service spectrum by making clear the assumptions that are made in planning the use of the TETRA Service spectrum in the UK. It is not the intention of this UK Radio Interface Requirement to duplicate or impose any additional 'essential requirements' of the Directive 1999/5/EC on products. Any specified parameters within this document are for the purpose of identifying product options and not as a de facto national product requirement.

Table 2.1: Minimum Equipment Requirements

Service Type. <small>(indicative)</small>	Frequency Range (MHz)	Utilisation	Channel Spacing	Modulation	Access Technique	Emission Designation	Output Power	Reference Specification assumed to be fulfilled in frequency planning and defining the equipment type	Additional Technical Requirements
TETRA	380.0000 to 390.0000	Mobile Transmit	25 kHz	$\pi/4$ DQPSK	(TDMA)	18K0G7WDT	30W Max	ETS 300 394-1	<ol style="list-style-type: none"> Not all frequencies within these ranges are available for licensing. Equipment may also be capable of operating on additional frequencies The RA may impose additional restrictions on the maximum power used for specific frequencies and locations. For further clarification refer to ERC/DEC/(96)04 or new versions of CEPT/ERC documents and any harmonised standards when available.
	390.0000 to 400.0000	Base Transmit	25 kHz	$\pi/4$ DQPSK	Time Division Multiple Access (TDMA)	18K0G7WDT	40W Max		
TETRA	420.0000 to 430.0000	Base Transmit	25 kHz	$\pi/4$ DQPSK	(TDMA)	18K0G7WDT	40W Max	ETS 300 394-1	
	410.0000 to 420.0000	Mobile Transmit	25 kHz	$\pi/4$ DQPSK	Time Division Multiple Access (TDMA)	18K0G7WDT	30W Max		
TETRA	450.0000 to 460.0000	Mobile Transmit	25 kHz	$\pi/4$ DQPSK	(TDMA)	18K0G7WDT	30W Max	ETS 300 394-1	

	460.0000 to 470.0000	Base Transmit	25 kHz	$\pi/4$ DQPSK	(TDMA)	18K0G7WDT	40W Max		
Service Type. <small>(indicative)</small>	Frequency Range (MHz)	Utilisation	Channel Spacing	Modulation	Access Technique	Emission Designation	Output Power	Reference Specification assumed to be fulfilled in frequency planning and defining the equipment type	Additional Technical Requirements
TETRA	915.0000 to 921.0000	Base Transmit	25 kHz	$\pi/4$ DQPSK	(TDMA)	18K0G7WDT	40W Max	ETS 300 394-1	
	870.0000 to 876.0000	Mobile Transmit	25 kHz	$\pi/4$ DQPSK	Time Division Multiple Access (TDMA)	18K0G7WDT	30W Max		

Document history

Draft	Date	Changes
0.1	Dec 2000	Original draft
1.0	April 2003	Draft accepted – no changes

Radiocommunications Agency

General Enquires to the
Information and Library Service
Tel: +44-(0)207-211-0502 or 0505
Fax: +44-(0)207-211-0507
Email: library.ra@gtnet.gov.uk

Technical Enquires to the
Private Business Systems Unit
Tel: +44-(0)207-211-0181
Fax: +44-(0)207-211-0163
Email: annette.henley@ra.gsi.gov.uk

Web site www.radio.gov.uk

This is a UK Radio Interface Requirement

There is no current published version of this UK Radio Interface Requirement