



UK Radio Licence Interface Requirement 2014 for Public Cellular Radiotelephone Services

(Version 1.0)

98/34/EC Notification Number: 2000/388/UK

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References

- ETS 300 086 European Technical Specification – Technical characteristics and test conditions for radio equipment with an internal or external RF connector intended primarily for analogue speech. – published January 1991 including amendment A1 November 1996 and amendment A2 March 1997
- EN 301 087 European Technical Specification – Digital cellular telephone base station operating in the GSM cellular telephone service in the 900 MHz and the 1800 MHz band – published April 1998
- ETS 300 609-4
(GSM 11.26 v5.2.1) European Technical Standard Digital cellular telecommunications system (phase 2 and phase 2+): base station system (BSS) equipment specification: part 4: Repeaters published March 1999
- I-ETS 300 020-1 (Edition 2)
European Technical Standard – Digital cellular telephone mobile station operating in the GSM cellular telephone service in the 900 MHz and 1800 MHz band – published January 1993
- I-ETS 300 609-1
European Technical Standard. Digital cellular telecommunication system (phase 2) Base Station system (BSS) equipment specification. Published October 1999.
- TBR 019 Technical Basis for Regulation – European digital cellular telecommunication System for GSM mobile stations – published October 1996
- TBR 031 Technical Basis for Regulation – European digital telecommunications system (Phase 2) Attachment requirements for mobile stations in the DCS 1800 band and additional GSM 900 bands; Access

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 2000, Statutory Instrument (SI) SI730. 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 first and second generation public cellular radiotelephone systems in the specified frequency bands.
- 1.2 Nothing in this UK Radio Interface Requirement shall preclude the requirement for equipment to comply with Directive 99/5/EC.
- 1.3 It is required by the Wireless Telegraphy Act 1949 that no radio equipment is installed or used in the UK except under the authority of a licence granted by or otherwise exempted by regulations made by the Secretary of State. It is a condition of such a licence or exemption regulations as appropriate 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 requirements given in the main body of this UK Radio Interface Requirement will apply in the licensing of public cellular radiotelephone services in the UK.
- 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 and 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 public cellular radiotelephone 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 or licence exemption of public radiotelephone equipment in the UK. Tables 2.1 and 2.2 contain the relevant equipment parameters. These together with the ‘essential requirement’ detailed in Article 3.2 of Directive 1999/5/EC constitute the minimum equipment requirements for public cellular radiotelephone equipment within the UK.
- 2.4 Network user equipment, meeting the minimum requirements outlined in this interface requirement, is exempt from licensing provided that it meets the requirements of the relevant exemption regulations. Details of the relevant exemption regulations are available from the RA on request.
- 2.5 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility within the Public Cellular Radiotelephone Service and with other radiocommunications services whilst promoting enterprise, innovation and competition.
- 2.6 This UK Radio Interface Requirement provides the necessary technical information which facilitates access to the Public Cellular Radiotelephone Service spectrum by making clear the assumptions that are made in planning the use of Public Cellular Radiotelephone 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 national product requirement.

Table 2.1: Minimum Equipment Requirements for Analogue Two Way Cellular Radio Telephone Equipment.

Service Type.	Frequency Range (MHz)	Utilisation	Licensing Requirement	Channel Spacing	Modulation	Access Technique	Emission Designation	Output Power (EiRP)	Additional Technical Requirements
TACS	935.0125 to 949.9875	Base Transmit	WT Act Licence. T Act Licence	25 kHz	Frequency	None	25K9W	27.14 dBW per channel (maximum)	<ol style="list-style-type: none"> Not all frequencies within these ranges are available for licensing. The RA may impose additional restrictions on the maximum power used for specific frequencies and locations.
	890.0125 to 904.9875	Mobile Transmit (Network user equipment)	Network user equipment meeting the minimum requirements outlined in this interface requirement, is exempt from licensing provided that it meets the requirements of the relevant exemption regulations.	25 kHz	Frequency	None	25K9W	0.63 W per channel (maximum)	
ETACS	917.0125 to 935.9875	Base Transmit	WT Act Licence. T Act Licence	25 kHz	Frequency	None	25K9W	27.14 dBW per channel (maximum)	
	872.0125 to 887.9875	Mobile Transmit (Network user equipment)	Network user equipment meeting the minimum requirements outlined in this interface requirement, is exempt from licensing provided that it meets the requirements of the relevant exemption regulations.	25 kHz	Frequency	None	25K9W	0.63 W per channel (maximum)	

Table 2.2: Minimum Equipment Requirements for Digital Two Way Cellular Radio Telephone Equipment.

Service Type. (indicative)	Frequency Range (MHz)	Utilisation	Licensing Requirement	Channel Spacing	Modulation	Access Technique	Emission Designation	Output Power (EIRP)	Additional Technical Requirements
GSM	925 to 960	Base Transmit	WT Act Licence. T Act Licence	200 kHz	Gaussian Minimum Shift Keying (GMSK)	Time Division Multiple Access (TDMA)	270KF1D	32 dBW per channel (maximum)	<ol style="list-style-type: none"> Not all frequencies within these ranges are available for licensing. The RA may impose additional restrictions on the maximum power used for specific frequencies and locations.
	890 to 915	Mobile Transmit (Network user equipment)	Network user equipment meeting the minimum requirements outlined in this interface requirement, is exempt from licensing provided that it meets the requirements of the relevant exemption regulations.	200 kHz	GMSK	TDMA	270KF1D	39 dBmW per channel (maximum)	
DCS 1800 /PCN	1805 to 1880	Base Transmit	WT Act Licence. T Act Licence	200 kHz	GMSK	TDMA	270KF1D	32 dBW per channel (maximum)	
	1710 to 1785	Mobile Transmit (Network user equipment)	Network user equipment meeting the minimum requirements outlined in this interface requirement, is exempt from licensing provided that it meets the requirements of the relevant exemption regulations.	200 kHz	GMSK	TDMA	270KF1D	36dBmW per channel (maximum)	

Annex A. Additional Performance Parameters (Informative)

The following are included for information only and have no regulatory status:

- A.1 Table A.1 details the Reference specifications which contain additional performance parameters and limits that the Radiocommunications Agency assume are fulfilled by public cellular radio systems when planning and managing the radio spectrum in the UK.

Table A.1 Reference Specifications for Cordless Telephony.

Equipment Type	Frequency Ranges	Reference Specifications
TACS (analogue)	Base: 917.0125 to 949.9875 MHz Mobile 872.0125 to 887.9875 MHz 890.0125 to 904.9875 MHz	ETS 300 086 Repeaters ETS 300 609-4
GSM 900 GSM (digital)	Base: 925 to 960 MHz	EN 301 087 I-ETS 300 609-1 Repeaters ETS 300 609-4
GSM 900 GSM (digital)	Mobile: 890 to 915 MHz	I-ETS 300 020-1 TBR 019
DCS 1800 GSM (digital)	Base: 1805 to 1880 MHz	EN 301 087 I-ETS300 609-1 TBR 031 Repeaters ETS 300 609-4
DCS 1800 GSM (digital)	Mobile: 1710 to 1785 MHz	TBR 031

Document history

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