



**UK Radio Interface Requirement 2028
for Amateur Radio Licence (A), (B) Or (A/B)
and Amateur Radio (Novice) Licence (A) or (B)**

(Version 1.0)

98/34/EC Notification Number: [to be added]

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 2000 No. 730. In accordance with Articles 4.1 and 7.2 of Directive 1999/5/EC, this UK Interface Requirement contains the requirements for the licensing and use of Amateur Radio Licence (A), (B) or (A/B) and Amateur Radio (Novice) Licence (A) or (B).
- 1.2 Nothing in this UK Radio Interface Specification shall preclude the need for equipment to comply with Directive 1999/5/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 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 to the licensing of Amateur Radio Licence (A), (B) or (A/B) and Amateur Radio (Novice) Licence (A) or (B).
- 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 Amateur Radio Licence (A), (B) or (A/B) and Amateur Radio (Novice) Licence (A) or (B).
- 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 Amateur Radio. 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 Amateur Radio 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 Amateur Radio in 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 Amateur Radio 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 Amateur Radio Service spectrum by making clear the assumptions that are made in planning the use of the Amateur Radio 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 Amateur Licence (A), (B) or (A/B)

Transmission is permitted in the frequency bands in accordance with the conditions in the tables listed below subject to the operator holding a relevant certificate(s) of competence.

Morse: A1A, F2A, A1B	Hand or automatically sent Morse code.
RT: J3E, F3E, G3E, A3E	Radiotelephony. Speech, including selective calling signals.
RTTY: F1B, F2B, J2B	Radio teletype and AMTOR.
Data: F1D, F2D, J2D	Digital codes representing numbers, text, speech, images, measurements, computer programs or other information authorised by the Licence.
Fax: J2C	Facsimile. Transmission of fixed or graphic images.
SSTV: J2B	Slow scan (i.e., reduced bandwidth) Television.
FSTV: C3F	Fast scan Television

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Status of allocations in UK to The Amateur Satellite Service	Maximum Power level (in dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
0.1357-0.1378	Secondary. Available on the basis of non-interference to other services (inside or outside the UK)	Not allocated	0dBW ERP	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
1.810-1.830	Primary. Available on the basis of non-interference to other services (outside the UK)	Not allocated	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
1.830-1.850	Primary	Not allocated	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
1.850-2.000	Secondary, Available on the basis of non-interference to other services (inside or outside the UK)	Not allocated	15dBW	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Status of allocations in UK to The Amateur Satellite Service	Maximum Power level (in dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
3.500-3.800	Primary, Shared with other services	Not allocated	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
7.000-7.100	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
10.100-10.150	Secondary	Not allocated	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
14.000-14.250	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
14.250-14.350	Primary	Not allocated	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
18.068-18.168	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
21.000-21.450	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
24.890-24.990	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Status of allocations in UK to The Amateur Satellite Service	Maximum Power level (in dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
28.000-29.700	Primary	Primary	26dBW for Amateur Radio Licence (A) & 20dBW for Amateur Licence (A/B)	Morse, RT, RTTY, Data, Fax & SSTV	Not available under Amateur Radio Licence (B)
50.00-51.00	Primary, Available on the basis of non-interference to other services outside the UK	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax & SSTV	
51.00-52.00	Secondary. Available on the basis of non-interference to other services inside or outside the UK	Not allocated	20dBW	Morse, RT, RTTY, Data, Fax & SSTV	
70.00-70.50	Secondary, Available on the basis of non-interference to other services inside or outside the UK	Not allocated	22dBW	Morse, RT, RTTY, Data, Fax & SSTV	
144.0-146.0	Primary	Primary	26dBW	Morse, RT, RTTY, Data, Fax & SSTV	
430.0-431.0	Secondary	Not allocated	16dBW ERP	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
431.0-432.0	Secondary. Not available for use; within 100km radius of Charing Cross, London	Not allocated	16dBW ERP	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
432.0-435.0	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
435.0-438.0	Secondary	Secondary	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
438.0-440.0	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Status of allocations in UK to The Amateur Satellite Service	Maximum Power level (in dB relative to one watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
1 240-1 260	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
1 260-1 270	Secondary	Secondary. Earth to Space only.	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
1 270-1 325	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax, SSTV & FSTV	
2 310-2 400	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
2 400-2 450	Secondary. Users must accept interference from ISM users	Secondary. Users must accept interference from ISM users	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
3 400-3 475	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
5 650-5 670	Secondary	Secondary, Earth to Space only	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
5 670-5 680	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
5 755-5 765	Secondary. Users must accept interference from ISM users	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
5 820-5 830	Secondary. Users must accept interference from ISM users	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
5 830-5 850	Secondary. Users must accept interference from ISM users	Secondary, Space to Earth only. Users must accept interference from ISM users	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
10 000-10 125	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Status of allocations in UK to The Amateur Satellite Service	Maximum Power level (in dB relative to one watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
10 225-10 450	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
10 450-10475	Secondary	Secondary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
10 475-10 500	Not allocated	Secondary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
24 000-24 050	Primary. Users must accept interference from ISM users	Primary. Users must accept interference from ISM users	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
24 050-24 150	Secondary. May only be used with the written consent of the Secretary of State. Users must accept interference from ISM users	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
24 150-24 250	Secondary	Not allocated	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
47 000-47 200	Primary	Primary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
75 500-76 000	Primary	Primary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
142 000-144 000	Primary	Primary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	
248 000-250 000	Primary	Primary	26dBW	Morse, RT, RTTY, Data, Fax , SSTV & FSTV	

Note 1: The Effective Radiated Power (ERP) is defined as the product of the power supplied to the antenna and its gain relative to a half wave dipole in the direction of maximum radiation and may be considered for a specified polarisation. The Peak Envelope Power (PEP) is defined as the average power supplied to the antenna by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

Note 2: Repeaters and beacon stations are subject to successful frequency co-ordination.

Additional information

It is recommended that operation is in accordance with the UK Amateur Radio Band Plans as published in the Radio Society of Great Britain Yearbook.

Table 2.2: Minimum Equipment Requirements for Amateur (Novice) Licence (A) or (B)

Transmission is permitted in the frequency bands in accordance with the conditions in the tables listed below subject to the operator holding a relevant certificate(s) of competence.

Morse: A1A, F2A, A1B	Hand or automatically sent Morse code.
RT: J3E, F3E, G3E, A3E	Radiotelephony. Speech, including selective calling signals.
RTTY: F1B, F2B, J2B	Radio teletype and AMTOR.
Data: F1D, F2D, J2D	Digital codes representing numbers, text, speech, images, measurements, computer programs or other information authorised by the Licence.
Fax: J2C	Facsimile. Transmission of fixed or graphic images.
SSTV: J2B	Slow scan (i.e., reduced bandwidth) Television.
FSTV: C3F	Fast scan Television

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Maximum Power level (In dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
1.950-2.000	Available on the basis of non-interference to other services (inside or outside the United Kingdom)	10	Morse, RT, RTTY and Data	Band not available for use by Novice Licence (B) holders
3.550-3.600	Primary, Shared with other services	10	Morse	Band not available for use by Novice Licence (B) holders
3.600-3.650	Primary, Shared with other services	10	Morse, RT and RTTY	Band not available for use by Novice Licence (B) holders
10.110-10.140	Secondary	10	Morse	Band not available for use by Novice Licence (B) holders

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Maximum Power level (In dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
21.050-21.149	Primary	10	Morse	Band not available for use by Novice Licence (B) holders
28.050-28.190	Primary	10	Morse, RTTY and Data	Band not available for use by Novice Licence (B) holders
28.225-28.300	Primary	10	Morse, RTTY and Data	Band not available for use by Novice Licence (B) holders
28.300-28.500	Primary	10	Morse and RT	Band not available for use by Novice Licence (B) holders
50.0-51.0	Primary. Available on the basis of non-interference to other services outside the United Kingdom Antennas Limited to 20 metres above ground level No maritime mobile operation	10	Morse, RT and Data	

Frequency Bands in MHz	Status of allocations in UK to The Amateur Service	Maximum Power level (In dB relative to one Watt) PEP (See Note 1)	Permitted Types of Transmission	Additional Requirements
51.0-52.0	Secondary. Available on the basis of non-interference to other services outside the United Kingdom Antennas Limited to 20 metres above ground level No maritime mobile operation	10	Morse, RT and Data	
144.0-146.0	Primary	10	Morse, RT, RTTY, Data Facsimile and SSTV	
432.0-435.0	Secondary	10	Morse, RT and Data.	
435.0-440.0	Secondary	10	Morse, RT, Data, SSW and FSTV	
1 240-1 325	Secondary	10	Morse, RT, RTTY, Data, Facsimile, SSTV and FSTV	
10 000-10 125	Secondary	10	Morse, RT, RTTY, Data, Facsimile, SSTV and FSTV	
10 225-10 475	Secondary	10	Morse, RT, RTTY, Data, Facsimile, SSTV and FSTV	

Note 1: The Peak Envelope Power (PEP) is defined as the average power supplied to the antenna by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions. This excludes amplitude modulated emissions. For amplitude modulated emissions it is permitted to use a PEP not exceeding four times the unmodulated carrier.

Note 2: Repeaters and beacon stations are subject to successful frequency co-ordination.

Additional information

It is recommended that operation is in accordance with the UK Amateur Radio Band Plans as published in the Radio Society of Great Britain Yearbook.

Document history

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1.0	Jan 01	First published version

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