

IR 2084 - UK Interface Requirement 2084

Cospas-Sarsat locator beacons for use on land

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Section 1

References

- 1.1 Commission Decision 2005/631/EC of 29 August 2005 (concerning essential requirements for ensuring access of Cospas-Sarsat locator beacons to emergency services)
- 1.2 Specification for Cospas-Sarsat 406 MHz distress beacons; C/S T.001 Issue 3 – Revision 11 October 2010
- 1.3 Cospas-Sarsat 406 MHz distress beacon type approval standard C/S T.007 Issue 4 – Revision 5 October 2010
- 1.4 Cospas-Sarsat 406 MHz Frequency Management Plan C/S T.012 Issue 1 – Revision 7 October 2010
- 1.5 ETSI Standard; Electromagnetic compatibility and Radio spectrum Matters (ERM); Satellite Personal Locator Beacons (PLBs) operating in the 406,0 MHz to 406,1 MHz frequency band; Part 1: Technical characteristics and methods of measurement ETSI EN 302 152-1 V1.1.1 (2003-11)
- 1.6 Recommendation ITU-R M.690-1; Technical characteristics of emergency indicating radio beacons (EPIRBS) operating on the carrier frequencies of 121.5 MHz and 243 MHz

Section 2

Foreword

- 2.1 The Radio Equipment Directive (Directive 2014/53/EU) was implemented in the United Kingdom (UK) by the Radio Equipment Regulations 2017. In accordance with Articles 8 and 7 of Directive 2014/53/EU, this UK Interface Requirement contains the requirements for the licensing and use of Cospas-Sarsat locator beacons not falling within the scope of Decision 2004/71 /EC, in the specified frequency bands.
- 2.2 Nothing in this UK Radio Interface Requirement shall preclude the need for equipment to comply with Directive 2014/53/EU.
- 2.3 It is required by the Wireless Telegraphy Act 2006 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 Ofcom. It is a condition of such a licence or exemption regulations as appropriate that, in order to be installed or used in the UK, the equipment must meet the minimum requirements specified in this UK Interface Requirement for the stated equipment types and for the stated frequency bands. Nothing in this UK Interface Requirement shall preclude equipment from being placed on the market in the UK that complies with the 'essential requirements' specified in Directive 2014/53/EU.
- 2.4 The requirements given in the main body of this UK Radio Interface Requirement will apply to the licensing of Cospas-Sarsat locator beacons for use on land and not falling within the scope of Decision 2004/71 /EC.
- 2.5 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 Cospas-Sarsat locator for use on land.
- 2.6 All UK Radio Interface Requirements notified under Directive 2015/1535/EU will be published and will be made available free of charge from the Ofcom web-site at <http://stakeholders.ofcom.org.uk/spectrum/technical/interface-requirements/>.
- 2.7 Further information on this UK Radio Interface Requirement can be obtained from the technical enquiry contact given at the back of this document.

Section 3

Minimum requirements for operation within the UK

- 3.1 The minimum requirements in this document are made for reasons related to the effective and appropriate use of the radio spectrum, in particular maximising spectrum utilisation.
- 3.2 This UK Radio Interface Requirement gives a high level description of how the spectrum in the UK is used for Cospas-Sarsat locator beacons for use on land. It does not prescribe technical interpretation of the 'essential requirements' of Directive 2014/53/EU.
- 3.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the exemption from licensing of Cospas-Sarsat locator beacons for use on land in the UK. Table 3.1 contains the relevant equipment parameters. These taken together with the 'essential requirements' detailed in Article 3.2 of Directive 2014/53/EU constitute the minimum requirements for Cospas-Sarsat locator beacons for use on land, within the UK. Nothing in this UK Interface Requirement shall preclude equipment from being placed on the market in the UK that complies with the 'essential requirements' specified in Directive 2014/53/EU.
- 3.4 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility within the Cospas-Sarsat locator beacons for use on land and with other radiocommunications services, whilst promoting enterprise, innovation and competition.
- 3.5 This UK Radio Interface requirement provides the necessary technical information which facilitates access to spectrum for Cospas-Sarsat locator beacons for use on land, by making clear the assumptions that are made in planning the use of spectrum for Cospas-Sarsat locator beacons for use on land 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 2014/53/EU on products. Any specified parameters within this document are for the purpose of identifying product options and not as a national de facto product requirement.

Table 3.1: Minimum requirements for the use of Cospas-Sarsat Personal Locator Beacons (PLBs) for use on land, operating in the 406 MHz, 121.5 MHz and 243 MHz bands

Mandatory (1-10)		
1	Frequency band(s)	406 MHz to 406.1 MHz Homing signal 121.5 MHz or 243 MHz
2	Radiocommunication Service	Mobile-satellite (Earth-to-space) service
3	Application	Personal Locator Beacon – (Emergency Position Indicating Radio Beacon)
4	Channelling	See Cospas-Sarsat 406 MHz Frequency Management Plan C/S T.012
5	Modulation / Occupied bandwidth	121.5 MHz; Homing signal: Class of emission A3X 243 MHz; Homing signal: Class of emission A3X The carrier shall be amplitude modulated at a modulation factor of at least 0.85. The modulation applied to the carrier shall have a minimum duty cycle of 33 per cent. The audio modulation frequency shall sweep downward within a range of not less than 700 Hz between 1 600 Hz and 300 Hz and with a sweep repetition rate of 2 Hz to 4 Hz.
6	Direction / Separation	N/A
7	Maximum Transmit Power	406 MHz 5 W + / - 2 dB (35 to 39 dBm) measured into a 50 ohm load 121.5 MHz and 243 MHz; Peak equivalent isotropic radiated power should be less than 100 mW
8	Channel access and occupation rules	N/A
9	Authorisation regime	Licence exempt
10	Additional essential requirements	In addition to the requirements of the present document, the beacon shall also meet the

		requirements of the Cospas-Sarsat system in accordance with Commission Decision of 29 August 2005 concerning essential requirements as referred to in Directive 1999/5/EC of the European parliament and of the Council ensuring access of Cospas-Sarsat locator beacons to the emergency services (2005/631/EC).
Informative (11-13)		
11	Frequency planning assumptions	N/A
12	Planned changes	None planned
13	Reference	C/S T.001, C/S T.007, C/S T.012, ETSI EN 302 152-1, Recommendation ITU-R M.690-1.
14	Notification	2011/190/UK
15	Remarks	<p>The Cospas-Sarsat Personal Locator Beacon should be registered by a UK competent authority.</p> <p>It is recommended that the beacon transmits a Global Navigation Satellite System (GNSS) determined integrated location information to enable a more accurate fix for positional information to be determined by Search and Rescue authorities.</p> <p>It is recommended that manufacturers take steps to support and encourage safe storage of the beacon by users, to avoid false alerts.</p>

Section 4

PLB registration

(informative)

- 1.1 All Personal Locator Beacons (PLBs) for land use should be registered on the UK EPIRB Registry.
- 1.2 To do this either:
 - 1.2.1 complete and return the registration card supplied with the PLB to the address provided; or
 - 1.2.2 download the registration form and send it to the Falmouth Maritime Rescue Co-ordination Centre¹.

¹ Forms and address details can be found at <https://www.gov.uk/maritime-safety-weather-and-navigation/register-406-mhz-beacons>

Section 5

Contact details

Ofcom Spectrum Licensing
PO Box 1285
Warrington. WA1 9GL

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Email: spectrum.licensing@ofcom.org.uk

Website: <https://www.ofcom.org.uk/>

Section 6

Document history

Version	Date	Changes
1.0	December 2011	Published
1.1	January 2018	Replaced R&TTE Directive 1999/5/EC and Directive 98/34/EC with Radio Equipment Directive and Directive (EU) 2015/1535 respectively. Minor editorials