

UK Interface Requirement 2020

**Radar 9 GHz Band (non-SOLAS) in the Maritime
Radionavigation Service for ships and shore stations**

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Section 1

References

- 1.1 ETSI EN 302 248 Electromagnetic compatibility and Radio spectrum Matters (ERM); Navigation radar for use on non-SOLAS vessels; Harmonised EN covering the essential requirements of Article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU)
- 1.2 CEPT/ERC/Recommendation 74-01E – Unwanted emissions in the spurious domain
- 1.3 IEC 62252 – Maritime navigation and radiocommunication equipment and systems - Radar for craft not in compliance with IMO SOLAS Chapter V - Performance requirements, methods of test and required test results
- 1.4 IEC 62388 Maritime navigation and radiocommunication equipment and systems – Shipborne radar - Performance requirements, methods of testing and required test results
- 1.5 ITU-R Recommendation SM 329 – Unwanted emissions in the spurious domain.
- 1.6 ITU-R Recommendation SM 1541 – Unwanted emissions in the out-of-band domain.
- 1.7 ITU Radio Regulations 2008 Appendix 3.

Section 2

Foreword

- 2.1 The Radio Equipment 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 9 GHz Radar (non-SOLAS) in the specified frequency band.
- 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 9 GHz Radar (non-SOLAS) in the maritime radionavigation service in the UK.
- 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 9 GHz Radar (non-SOLAS) in the maritime radionavigation service in the UK.
- 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://www.ofcom.org.uk>
- 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 9 GHz Radar (non-SOLAS) equipment in the radionavigation service. 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 licensing of 9 GHz Radar (non-SOLAS) equipment in the radionavigation service 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 9 GHz Radar (non-SOLAS) equipment in the radionavigation service in 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 9 GHz Radar (non-SOLAS) Service 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 the 9 GHz Radar (non-SOLAS) Service spectrum by making clear the assumptions that are made in planning the use of the 9 GHz Radar (non-SOLAS) 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 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 Radar: 9 GHz band (non-SOLAS) equipment in the maritime radionavigation service operating in the 9000- 9500 GHz band.

| Mandatory (1-10) | | |
|---------------------|-------------------------------------|--|
| 1 | Frequency bands | 9300 - 9500 MHz for ship stations and shore stations. 9000 – 9500 MHz for shore stations subject to planning and availability. |
| 2 | Radiocommunication Service | Maritime radionavigation. |
| 3 | Application | Maritime radar |
| 4 | Channelling | N/A |
| 5 | Modulation (Shore Stations) | P0N or V0N |
| | Modulation (Ship Stations) | P0N |
| 6 | Direction / Separation | N/A |
| 7 | Maximum Transmit Power | 80 dBW peak equivalent isotropically radiated power |
| 8 | Channel access and occupation rules | N/A |
| 9 | Authorisation regime | Ship Radio/Navigational Aids and Radar licence. |
| 10 | Additional essential requirements | N/A |
| Informative (11-13) | | |
| 11 | Frequency planning assumptions | N/A |
| 12 | Planned changes | None known |
| 13 | Reference | ETSI EN 302 248 IEC 62252 IEC 62388 Recommendation ITU-R SM.329 Recommendation ITU-R SM.1541 ITU Radio Regulations ed. 2008 Appendix 3 CEPT/ERC/ Recommendation 74-01E |
| 14 | Notification | 2011/0351/UK |
| 15 | Remarks | Users should be aware that radars which are not capable of triggering Search and Rescue Transponders (SARTS) or Radar Beacons (Racons), although permitted for use on pleasure vessels, are not permitted for use on commercial vessels. |

Section 4

Additional performance parameters

(informative)

None specified

Section 5

Contact details

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Section 6

Document history

| Version | Date | Changes |
|----------------|--------------|--|
| 1.0 | 4 Jan 2001 | Published |
| 2.0 | 9 Nov 2005 | Rebranded to Ofcom format |
| 2.1 | 9 Dec 2005 | Editorial revisions |
| 3 | Dec 2011 | Revised technical parameters |
| 3.1 | 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 |