



# SLOVENSKI STANDARD

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gfYXbY!']b'\_fUh\_cj Ucj bYa 'dcXfc 1 '!HY\ b] bY'\_UfU\_hYf]gh]\_Y]b'a Yf]bY'a YtcXY

Radio Equipment and Systems (RES); Radiotelex equipment operating in the maritime MF/HF service; Technical Characteristics and methods of measurement

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**Radio Equipment and Systems**  
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**MF/HF service**  
**Technical characteristics and methods of measurement**

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## Foreword

This European Telecommunications Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI) and has undergone the ETSI standards approvals procedure.

The standard sets out the minimum requirements for the use of radiotelex equipment aboard ships, operating in the maritime mobile MF/HF radio service. Equipment must be capable of transmitting on one or more of the frequency bands assigned to the service (415 kHz to 526.5 kHz, 1605 kHz to 4.0 MHz, or 1605 kHz to 28MHz).

The standard incorporates the requirements of International Maritime Organisation (IMO) Assembly Resolutions A 569(14) and A 613(15), CCIR Recommendations 490, 491-1 and 625 and CCITT Recommendation F.130. It includes the performance standards for Narrow-Band Direct Printing (NBDP) equipment operating in the Global Maritime Distress and Safety System (GMDSS). Where the equipment is provided with a digital input panel, it must comply where practicable with CCITT Recommendation E.161/Q.11.

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## 1 Scope

This standard states the minimum requirements for radiotelex equipment<sup>1)</sup> for use on board ships. These requirements include the relevant provisions of the Radio Regulations and the performance standards for shipborne MF/HF radio installations for Narrow Band Direct Printing (NBDP) equipment operating in the Global Maritime Distress and Safety System (GMDSS), and of the performance standards Res. A 569(14) and Res. A 613(15) as adopted by the International Maritime Organization (IMO).

Annex VI of CEPT Recommendation T/R 34-01, CCIR Recommendation 625, 490, 491-1 and CCITT Recommendation F 130 are regarded as a constituent part of this standard.

Maritime radiotelex equipment shall use the error-detecting and correcting system used for direct-printing telegraphy in the maritime mobile service as described in CCIR Recommendation 625.

The equipment shall be able to operate in the Forward Error Correcting (FEC) and Automatic Repetition reQuest (ARQ) modes in accordance with CCIR Recommendation 625.

Maritime radiotelex equipment may consist of integrated equipment or of a combination of a maritime mobile transmitter/receiver and external NBDP equipment. Where such a combination is used the requirements for integrated equipment shall apply to that combination.

If the equipment, or parts of it, is designed in such a manner that it can also be used for other categories of maritime radio communication (e.g. radiotelephony), the relevant parts of the equipment shall furthermore fulfil the requirements of the relevant standards applicable for the service(s) in question.

## 2 General requirements

### 2.1 Construction

In all respects the mechanical and electrical design and construction and also the finish of the equipment shall conform with good engineering practice, and the equipment shall be suitable for use on board ships at sea.

The number of operational controls, their design and manner of function, location, arrangement and size should provide for simple, quick and effective operation. The controls should be arranged in a manner as to minimize the chance of inadvertent operation.

Their number should be the minimum necessary for satisfactory operation.

All operational controls should permit normal adjustments to be easily performed and should be easy to identify from the position at which the equipment is normally operated. Controls not required for normal operation should not be readily accessible.

The equipment should be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

All controls, indicators, and terminals, shall be clearly labelled. A label showing the type designation under which the equipment is submitted for type testing, shall be fitted to the equipment so as to be clearly visible in the normal operating position.

The serial number shall be permanently marked on each unit of the equipment or on a name plate permanently fastened to that unit.

If the equipment consists of more than one unit, each unit shall have a clear identity.

Details of the power supply from which the equipment is intended to operate, shall also be clearly indicated.

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1) For the purposes of this standard, radiotelex equipment is defined as direct-printing telegraph equipment employing automatic identification and error correction in the maritime mobile MF/HF radio service.