AMENDMENT

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pr **A1**

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Key words: DRRS, radio, transmission, SDH, STM

This draft amendment A1, if approved, will modify the European Telecommunication Standard ETS 300 639 (1996)

Transmission and Multiplexing (TM); Digital Radio Relay Systems (DRRS); Sub-STM1 DRRS operating in the 13 GHz, 15 GHz and 18 GHz frequency bands with about 28 MHz co-polar and 14 MHz cross-polar channel spacing

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Foreword

This draft amendment to ETS 300 639 (1996) has been produced by the Transmission and Multiplexing (TM) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the One-step Approval Procedure phase of the ETSI standards approval procedure.

Once this amendment has been adopted, it is intended to incorporate it into ETS 300 639 Edition 1 and to convert the resulting document into EN 300 639 V1.2.1 for publication.

Proposed transposition dates	
Date of latest announcement of this amendment (doa):	3 months after ETSI publication
Date of latest publication or endorsement of this amendment (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Amendments

Modify clause 2 and subclauses 5.5.2, 6.5, 6.5.1 and 6.5.2 as follows:

2 References

[21] CEPT/ERC Recommendation 74-01: "Spurious Emissions".

5.5.2 Receiver spurious emissions

~~The frequency range in which the spurious emissions specifications apply is 1 GHz to 120 GHz. The limit values measured at point D' are:~~

~~≥ 1 GHz and < 21,2 GHz: -90 dBW;~~

~~≥ 21,2 GHz and < 80 GHz: -60 dBW;~~

~~≥ 80 GHz and ≤ 120 GHz: -50 dBW.~~

~~NOTE: See notes in subclause 5.4.4.~~

At reference point C, the limit values of CEPT/ERC Recommendation 74-01 [21] shall apply.

6.5 Spurious emissions

It is necessary to define spurious emissions for two reasons:

a) ~~to limit interference radiated at antenna port into systems operating wholly externally to the system under consideration (external emissions);~~to limit interference into other systems operating wholly externally to the system under consideration (external emissions), which limits are referred by CEPT/ERC Recommendation 74-01 [21];

b) to limit local interference within the system channel plan where transmitters and receivers may be directly connected via the filter and branching systems (internal emissions).

This leads to two sets of spurious emission limits at reference point B' (for equipment with multichannel branching system) or C' (for equipment with simple duplexer).

6.5.1 Spurious emissions - external

~~According to an ITU-R Recommendation F.1191 [28], the external spurious emissions are defined as emissions at frequencies which are outside the nominal carrier frequency, ± 250 % of the relevant channel spacing.~~

~~The limits stated below (which have been used in the DRRS ETSs that have already been produced) should be used until the CEPT has issued an official standard covering spurious emission level limits.~~

~~NOTE: The matter is also under study in TM4.~~

~~Meanwhile the frequency range in which the spurious emission specifications apply is 30 MHz to the third harmonic of the upper limit of the operating frequency band 1)~~

~~The limit values are (preliminary values subject to consultation with CEPT and other relevant parties):~~

~~30 MHz to 21,2 GHz ≤ -60 dBm in any 100 kHz BWe~~

~~21,2 GHz to the third harmonic of the upper limit of the operating frequency band~~

~~≤ -30 dBm in any 1 MHz BWe~~

~~For "noise-like" emissions, the limits are intended for spectrum density not to be exceeded in any elementary measuring bandwidth.~~

~~Within the ± 250 % of the relevant channel spacing the unwanted emission level shall not exceed the limits fixed by the relevant spectrum mask.~~

According to CEPT/ERC Recommendation 74-01 [21], the external spurious emissions are defined as emissions at frequencies which are removed from the nominal carrier frequency more than ± 250% of the relevant channel separation.

Outside the band of ± 250% of the relevant channel separation (CS), the Fixed Service radio systems spurious emission limits, defined by CEPT/ERC Recommendation 74-01 [21] together with the frequency range to consider for conformance measurement, shall apply at reference point C'.

6.5.2 Spurious emissions - internal

The levels of the spurious emissions are specified below in table 5.

Table 5: Spurious emission limits - internal

Spurious emission frequency relative to channel assigned frequency.	Specification limit	Controlling factor
The level of all spurious signals (including L.O., ± IF, ± 2 x IF)	≤ -90 dBm	If spurious signal frequency falls within receiver half band.
~~The level of all spurious signals (including L.O., ± IF, ± 2 x IF)~~	~~≤ -45 dBm~~	~~If spurious signal frequency falls within transmitter half band.~~
The level of all spurious signals (including L.O., ± IF, ± 2 x IF)	≤ -70 dBm	If spurious signal frequency falls within receiver half band. For digital systems without branching networks (i.e. with duplexer) or on different polarization

History

Document history		
October 1996	First Edition	
August 1999	One-step Approval Procedure	OAP 9956: 1999-08-25 to 1999-12-24