



AMENDMENT

ETS 300 197

A1

April 1995

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**This amendment A1 modifies
the European Telecommunication Standard ETS 300 197 (1994)**

**Transmission and Multiplexing (TM);
Parameters for radio relay systems for the transmission of
digital signals and analogue video signals operating at 38 GHz**

ETSI

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Foreword

This Amendment to ETS 300 197 (1994) has been produced by the Transmission and Multiplexing (TM) Technical Committee of the European Telecommunications Standards Institute (ETSI).

| Transposition dates | |
|---|-----------------|
| Date of latest announcement of this ETS (doa): | 31 July 1995 |
| Date of latest publication of new National Standard or endorsement of this ETS (dop/e): | 31 January 1996 |
| Date of withdrawal of any conflicting National Standard (dow): | 31 January 1996 |

Amendments

Page 8, subclause 4.1.2

Delete subclause 4.1.2 and replace it with the following:

4.1.2 Co-polar channel spacing for like carriers

For systems operating on the same antenna, see subclause 4.3, item a).

Table 1a shows the channel spacing arrangement for low-capacity systems utilising 2-state modulation schemes.

For low, medium and high capacity systems utilising more spectrally efficient modulation schemes, a common 3,5 MHz raster shall still be used. For this case, the channel spacing arrangements are shown in table 1b.

Table 1a: Digital systems with 2-state modulation

| | | |
|---------------------------|---|----|
| Minimum bit rate (Mbit/s) | 2 | 8 |
| Channel spacing (MHz) | 7 | 14 |

Table 1b: Digital systems with four or more modulation states

| | | | | | | |
|---------------------------|-----|-------|---|----|----|---------|
| Minimum bit rate (Mbit/s) | 2 | 2 x 2 | 8 | 34 | 34 | 140/155 |
| Channel spacing (MHz) | 3,5 | 3,5 | 7 | 28 | 56 | 140 |

Table 2 shows the channel spacing arrangements for various video base-bands.

Table 2: Analogue systems

| | | | | |
|-----------------------|-------|-----|------|------|
| Video baseband (MHz) | < 3,5 | < 6 | < 10 | < 14 |
| Channel spacing (MHz) | 28 | 56 | 56 | 56 |

Page 14, table 6

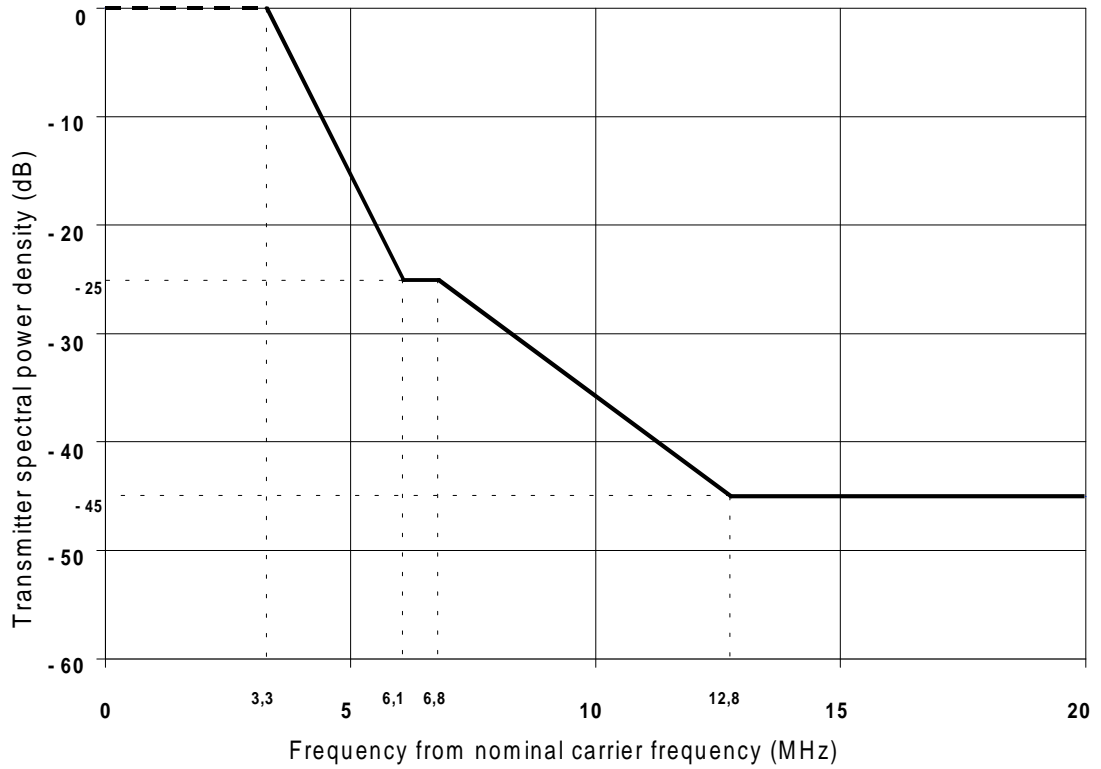
Replace table 6 by the following table:

Table 6: Spectrum analyser settings

| | | | | | | |
|---------------------------|-------|-------|-----|-----|-----|-----|
| Bit rate (Mbit/s) | 2 x 2 | 2 / 8 | 8 | 34 | 34 | 140 |
| Channel spacing (MHz) | 3,5 | 7 | 14 | 28 | 56 | 140 |
| IF Bandwidth (kHz) | 30 | 30 | 30 | 100 | 100 | 300 |
| Total sweep width (MHz) | 20 | 20 | 50 | 100 | 200 | 500 |
| Video bandwidth (kHz) | 0,1 | 0,1 | 0,1 | 0,1 | 1 | 1 |
| Recommended scan time (s) | 20 | 20 | 50 | 20 | 20 | 20 |

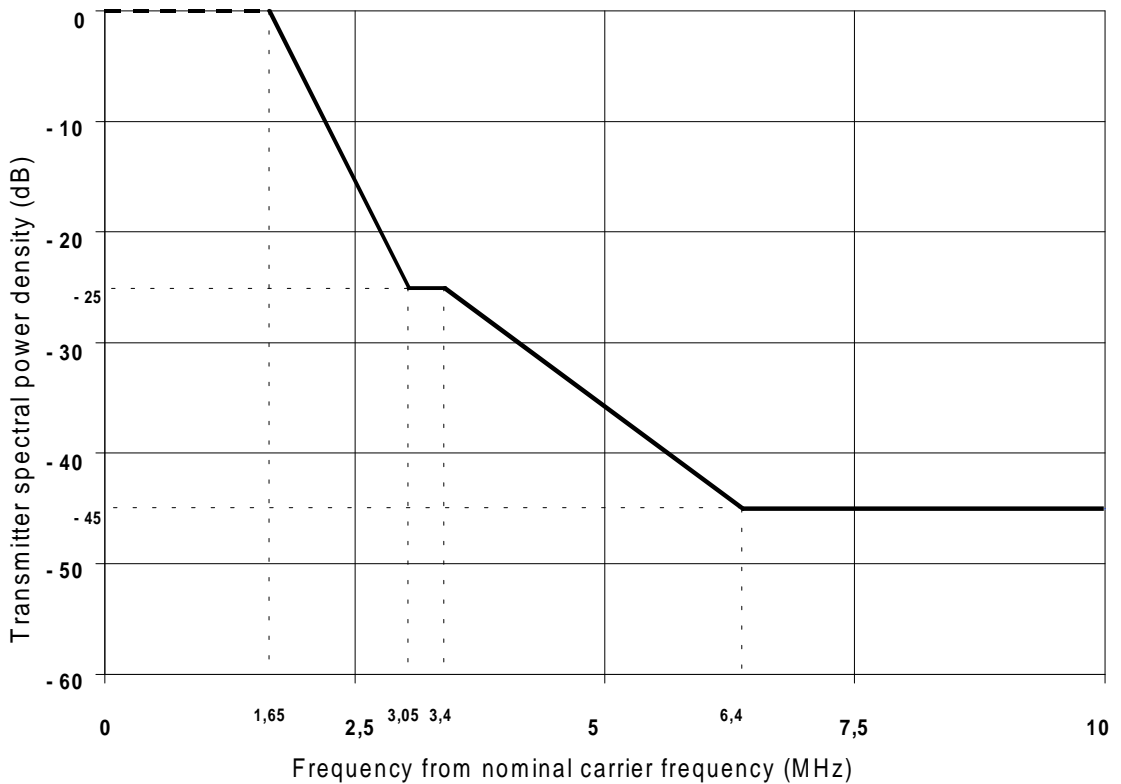
Page 14, figure 3

Replace figure 3 by the following figures 3a and 3b:



(Mask includes the allowance for both short and long term frequency tolerance)

Figure 3a: Limits of spectral power density for minimum system rate of 2 Mbit/s or 8 Mbit/s using a channel spacing of 7 MHz (referred to nominal centre frequency, f_0)



(Mask includes the allowance for both short and long term frequency tolerance)

Figure 3b: Limits of spectral power density for minimum system rate of 2 x 2 Mbit/s using a channel spacing of 3,5 MHz (referred to nominal centre frequency, f_0)

Page 20, table 7

Replace table 7 by the following table:

Table 7: Adjacent channel interference levels

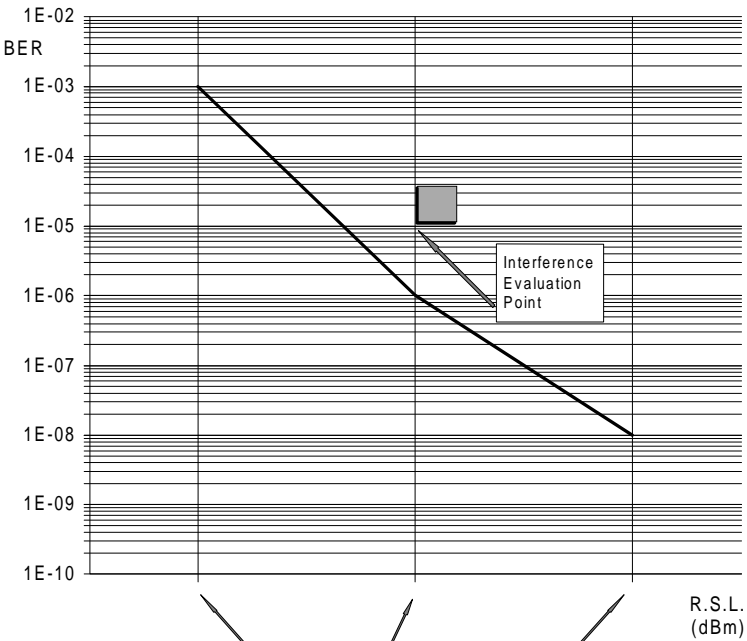
| Bit rate (Mbit/s) | Separation of wanted and interfering signal (MHz) | | Interference level (carrier/interference (dB)) | |
|----------------------|--|-------------|---|-------------|
| | co-polar | cross-polar | co-polar | cross polar |
| 2x2 | 3,5 | n/a | 0 | n/a |
| 2 | 7 | n/a | 0 | n/a |
| 8 | 7 | n/a | 0 | n/a |
| 8 | 14 | n/a | 0 | n/a |
| 34 | 28 | n/a | 0 | n/a |
| 34 | 56 | n/a | 0 | n/a |
| 140/155 | 140 | n/a | 0 | n/a |

NOTE: Regulatory administrations may wish to vary the value of C/I for co-polar, adjacent channel interference. Values are typically in the range of 0 to - 3 dB.

n/a: not applicable.

Page 19, figure 8

Replace figure 8 by the following figure:



| Bit rate (Mbit/s) | BER 1 E-3 | BER 1 E-6 | BER 1 E-8 | Channel spacing (MHz) |
|-------------------|-----------|-----------|-----------|-----------------------|
| 2 | - 81 | - 78 | - 74 | 7 |
| 2 x 2 | - 82 | - 77 | - 73 | 3,5 |
| 8 | - 75 | - 72 | - 68 | 14 |
| 8 | - 80 | - 75 | - 71 | 7 |
| 34 | - 72 | - 69 | - 65 | 28 |
| 34 | - 72 | - 69 | - 65 | 56 |
| 140/155 | - 66 | - 63 | - 59 | 140 |

Figure 8: BER versus RSL

History

| Document history | |
|-------------------------|--|
| April 1994 | First Edition of ETS 300 197 |
| April 1995 | Amendment 1 to First Edition of ETS 300 197 |
| January 1996 | Converted into Adobe Acrobat Portable Document Format (PDF) |
| Note | <p>The references to the changed pages in the standard refer to an old presentation. See history box at the end of the standard itself.</p> <p>The new presentation format, applied from 1 December 1995, might have different page numbering. The clause numbering has not changed.</p> |
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