

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.992.5

Corrigendum 1
(11/2010)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Digital sections and digital line system – Access networks

Asymmetric digital subscriber line (ADSL)
transceivers – Extended bandwidth ADSL2
(ADSL2plus)

Corrigendum 1: Upstream optional D0 values

Recommendation ITU-T G.992.5 (2009) –
Corrigendum 1

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Recommendation ITU-T G.992.5

Asymmetric digital subscriber line (ADSL) transceivers – Extended bandwidth ADSL2 (ADSL2plus)

Corrigendum 1

Upstream optional D0 values

Summary

Corrigendum 1 to Recommendation ITU-T G.992.5 covers the following:

- Upstream optional D0 values.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.992.5	2003-05-22	15
1.1	ITU-T G.992.5 (2003) Cor. 1	2004-04-30	15
1.2	ITU-T G.992.5 (2003) Amend. 1	2004-04-30	15
1.3	ITU-T G.992.5 (2003) Amend. 2	2004-06-13	15
2.0	ITU-T G.992.5	2005-01-13	15
2.1	ITU-T G.992.5 (2005) Amend. 1	2005-07-14	15
2.2	ITU-T G.992.5 (2005) Amend. 2	2006-06-06	15
2.3	ITU-T G.992.5 (2005) Amend. 3	2006-12-14	15
2.4	ITU-T G.992.5 (2005) Amend. 4	2007-07-29	15
2.5	ITU-T G.992.5 (2005) Amend. 5	2008-06-22	15
3.0	ITU-T G.992.5	2009-01-13	15
3.1	ITU-T G.992.5 (2009) Cor. 1	2010-11-29	15

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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Recommendation ITU-T G.992.5

Asymmetric digital subscriber line (ADSL) transceivers – Extended bandwidth ADSL2 (ADSL2plus)

Corrigendum 1

Upstream optional D0 values

1) Upstream optional D0 values

Change Table 7-8 in clause 7.6.2 as follows (align with [ITU-T G.994.1]):

7.6.2 Valid framing configurations

Table 7-8 – Valid framing configurations

Parameter	Capability
D_p	<u>For downstream latency paths: 1, 2, 4, 8, 16, 32, 64.</u> For the downstream latency path #0, additional valid D_0 values are: 96, 128, 160, 192, 224, 256, 288, 320, 352, 384, 416, 448, 480, 511. <u>For upstream latency paths: 1, 2, 4, 8.</u> <u>For the upstream latency path #0, additional valid D_0 values are:</u> <u>16, 32, 64.</u> If $R_p = 0$ then $D_p = 1$

Change clause 7.10 as follows (align with [ITU-T G.994.1]):

7.10 Initialization procedures

See clause 7.10 of [ITU-T G.992.3], with the following paragraph ~~after Table 7-18c/G.992.3~~
modified as follows:

The S_{0min} value shall be less than or equal to $1/3$ ~~(i.e., $n \geq 2$)~~. If the S_{0min} ~~value~~
~~(see Table 7-18c/G.992.3)~~ is not included in the CL or CLR message, the S_{0min} value shall be set
equal to $1/3$ (implicit indication). The S_0 value selected during the exchange phase (see Table 7-7
and clause 7.10.3) shall be equal to or higher than the highest of the S_{0min} values indicated in the CL
and CLR message.

For use in this Recommendation, Table 7-18 of ITU-T G.992.3 shall be replaced by the following table:

Table 7-18 – Format for PMS-TC capability list information

Spar(2) bit	Definition of related Npar(3) octets
...	
Downstream PMS-TC latency path #0 supported (always set to 1)	<p>Parameter block of 6 octets that describes the maximum net_max downstream rate, downstream $S_{0\ min}$, downstream D_0 and the downstream relationship of N_{FEC0} and D_0 values supported in the latency path #0. The unsigned 12-bit net_max value is the data rate divided by 8000. The net_max downstream rate shall be greater than or equal to the maximum required downstream data rate for each TPS-TC type that is supported by the ATU.</p> <p>The supported range of S_0 values shall be indicated by its lowerbound $S_{0\ min}$. $S_{0\ min}$ shall equal $1/(n+1)$, with n coded as an unsigned 4-bit value, in the 1 to 15 range.</p> <p>The D_0 values supported shall be individually indicated with 1 bit per value.</p> <p>The "24'000 bytes interleaver size" bit indicates the support of different relationships of N_{FEC0} and D_0. If set to ZERO, the ATU shall support all configurations of supported N_{FEC0} and D_0 such that $(N_{FEC0} - 1) \times (D_0 - 1) \leq 16'002$. If set to ONE, the ATU shall support all configurations of supported N_{FEC0} and D_0 such that $(N_{FEC0} - 1) \times (D_0 - 1) \leq 24'000$.</p>
Upstream PMS-TC latency path #0 supported (always set to 1)	<p>Parameter block of 3 octets that describes the maximum net_max upstream rate and downstream $D_{0\ max}$ values supported in the latency path #0. The unsigned 12-bit net_max value is the data rate divided by 8000. The net_max upstream rate shall be greater than or equal to the maximum required upstream data rate for each TPS-TC type that is supported by the ATU. $D_{0\ max}$ is represented as an unsigned 4-bit value n, with $D_{0\ max} = 8 + 4 \times n$, and $n = 0, 2, 6$, or 14.</p> <p>The D_0 values supported shall be individually indicated with 1 bit per value.</p>
Downstream PMS-TC latency path #1 supported	<p>Parameter block of 4 octets that describes the maximum net_max downstream rate, downstream $R_{1\ max}$, and downstream $D_{1\ max}$ supported in the latency path #1. The unsigned 12-bit net_max value is the data rate divided by 8000. $R_{1\ max}$ is an unsigned 4-bit value and shall be one of the valid R_p values divided by 2. $D_{1\ max}$ is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.</p>
Upstream PMS-TC latency path #1 supported	<p>Parameter block of 4 octets that describes the maximum net_max upstream rate, upstream $R_{1\ max}$, and upstream $D_{1\ max}$ supported in the latency path #1. The unsigned 12-bit net_max value is the data rate divided by 8000. $R_{1\ max}$ is an unsigned 4-bit value and shall be one of the valid R_p values divided by 2. $D_{1\ max}$ is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.</p>
Downstream PMS-TC latency path #2 supported	<p>Parameter block of 4 octets that describes the maximum net_max downstream rate, downstream $R_{2\ max}$, and downstream $D_{2\ max}$ supported in the latency path #2. The unsigned 12-bit net_max value is the data rate divided by 8000. $R_{2\ max}$ is an unsigned 4-bit value and shall be one of the valid R_p values divided by 2. $D_{2\ max}$ is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.</p>
Upstream PMS-TC latency path #2 supported	<p>Parameter block of 4 octets that describes the maximum net_max upstream rate, upstream $R_{2\ max}$, and upstream $D_{2\ max}$ supported in the latency path #2. The unsigned 12-bit net_max value is the data rate divided by 8000. $R_{2\ max}$ is an unsigned 4-bit value and shall be one of the valid R_p values divided by 2. $D_{2\ max}$ is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.</p>

Table 7-18 – Format for PMS-TC capability list information

Spar(2) bit	Definition of related Npar(3) octets
Downstream PMS-TC latency path #3 supported	Parameter block of 4 octets that describes the maximum net_max downstream rate, downstream R_{3max} , and downstream D_{3max} supported in the latency path #3. The unsigned 12-bit net_max value is the data rate divided by 8000. R_{3max} is an unsigned 4-bit value and shall be one of the valid R_p values divided by 2. D_{3max} is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.
Upstream PMS-TC latency path #3 supported	Parameter block of 4 octets that describes the maximum net_max upstream rate, upstream R_{3max} , and upstream D_{3max} supported in the latency path #3. The unsigned 12-bit net_max value is the data rate divided by 8000. R_{3max} is an unsigned 4-bit value and shall be one of the value R_p values divided by 2. D_{3max} is an unsigned 3-bit value and shall be the logarithm base 2 of one of the valid D_p values.

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