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TESTING



**EuroDOCSIS, EuroPacketCable (Multimedia)
Certification/Qualification:
Technical Requirements for ECW46**

--- Project Reference ---

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**EuroDOCSIS, EuroPacketCable (Multimedia) Certification/Qualification –
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1 Specifications

1.1 EuroDOCSIS 1.0 Specifications

As EuroDOCSIS 1.0 is based on DOCSIS® 1.0 two sets of documents specify the EuroDOCSIS 1.0 specification.

The first set is the DOCSIS® 1.0 specification consisting of the following documents:

- SP-CMTS-NSII01-960702
- ANSI/SCTE 22-2 2002
- SP-CMCI-I07-020301
- SP-OSSI-BPI-C01-011119
- SP-OSSI-C01-011119
- SP-OSSI-RFI-C01-011119
- ANSI/SCTE 22-1 2002

The second set of documents consists of the following documents:

- EuroDOCSIS_spec.pdf
- Addition_EuroDOCSIS_spec.pdf
- EuroDOCSIS_STB_spec.pdf

This second set of documents can be found on the public entry of the EuroDOCSIS section of the website www.excentis.com. They specify deviations for EuroDOCSIS 1.0 with respect to DOCSIS 1.0. If something is mentioned in both documents it is the second set that has priority.

1.2 EuroDOCSIS 1.1 Specifications

As EuroDOCSIS 1.1 is based on DOCSIS® 1.1 two sets of documents specify the EuroDOCSIS 1.1 specification.

The first set is the DOCSIS® 1.1 specification consisting of the following documents:

- SP-CMTS-NSII01-960702
- SP-BPI+-I12-050812
- ANSI/SCTE 22-2 2002
- SP-CMCI-I10-050408
- SP-OSSlv.1-C01-050907
- SP-RFIV1.1-C01-050907

The second set of documents consists of the following documents:

- EuroDOCSIS_spec.pdf, Addition_EuroDOCSIS_spec.pdf
- EuroDOCSIS-OSS-Requirements_Rev.02.pdf



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Euro-DOCSIS.BPI+Req.pdf

SP-STB-v1.1-I02-061025 / SP-STB-v3.0-I01-110411 (for set-top box products only), see section 1.7 for further info

This second set of documents can be found on the public entry of the EuroDOCSIS section of the website www.excentis.com. They specify deviations for EuroDOCSIS 1.1 with respect to DOCSIS® 1.1. If something is mentioned in both documents it is the second set that has priority.

1.3 EuroDOCSIS 2.0 Specifications

As EuroDOCSIS 2.0 is based on the DOCSIS® 2.0 specifications two sets of documents specify the EuroDOCSIS 2.0 specification.

The first set is the DOCSIS® 2.0 specification consisting of the following documents:

SP-CMTS-NSII01-960702

CM-SP-BPI+-C01-081104

ANSI/SCTE 22-2 2002

CM-SP-CMCI-C01-081104

CM-SP-OSSIV2.0-C01-081104

CM-SP-RFIV2.0-C02-090422

It is appendix F of CM-SP-RFIV2.0-C02-090422 that needs to be implemented, if something is mentioned in this appendix it takes precedence over the main section.

The second set of documents consists of the following documents:

Euro-DOCSIS.BPI+Req.pdf

EuroDOCSIS-OSS-Requirements_Rev.02.pdf

SP-STB-v3.0-I01-110411 (for set-top box products only, see section 1.7 for further info)

This second set of documents can be found on the public entry of the EuroDOCSIS section of the website www.excentis.com. They specify deviations for EuroDOCSIS 2.0 with respect to DOCSIS® 2.0. If something is mentioned in both documents it is the second set that has priority.

If a EuroDOCSIS 2.0 CPE is submitted with support for IPv6, then this must be implemented per:

CM-SP-DOCSIS2.0-IPv6-I04-110623

1.4 EuroDOCSIS 3.0 Specifications

As EuroDOCSIS 3.0 is based on the DOCSIS® 3.0 specifications two sets of documents specify the EuroDOCSIS 3.0 specification.

The first set is the DOCSIS® 3.0 specification consisting of the following documents:

CM-SP-MULPIV3.0-I16-110623

CM-SP-OSSIV3.0-I15-110623



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CM-SP-SECv3.0-I13-100611

CM-SP-PHYv3.0-I09-101008 (Annex B for Europe!)

CM-SP-CMCIv3-I01-080320

It is Annex B of the CM-SP-PHYv3.0 specification that needs to be implemented. If something is mentioned in this annex then this takes precedence over the main section.

The second set of documents consists of the following documents:

Euro-DOCSIS.BPI+Req.pdf

SP-STB-v1.1-I02-061025 / SP-STB-v3.0-I01-110411 (for set-top box products only), see section 1.7 for further info

This second set of documents can be found on the public entry of the EuroDOCSIS section of the website www.excentis.com. They specify deviations for EuroDOCSIS 3.0 with respect to DOCSIS® 3.0.

If something is mentioned in both documents it is the second set that has priority.

1.5 EuroPacketCable Specifications

The requirements for the different components subject to EuroPacketCable certification are specified in the following documents which are available from the public entry from the Excentis website (follow TESTING / Cable Europe Labs certification / programs / Euro-PacketCable 1.0/1.5 / specifications):

MTA Requirements EuroPacketCable Certification v8.0

CMTS Requirements EuroPacketCable Certification v8.0

CMS Requirements EuroPacketCable Certification v9.0

IPAT Requirements EuroPacketCable Certification v7.0

MG Requirements EuroPacketCable Certification v4.0

EuroPacketCable Certificate Requirements v9.0

EuroPacketCable L-Package Clarification v9.0

Please also note that the document “EuroPacketCable Scalability And Stability v6.0” available from the same website-location specifies minimum performance requirements for some components.

For EuroPacketCable 1.0 products the following PacketCable specifications are applicable:

PKT-SP-EC-MGCP-I11-050812

PKT-SP-PROV-I11-050812

PKT-SP-DQOS-I12-050812

PKT-SP-CODEC-I06-050812

PKT-SP-SEC-I12-050812



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PKT-SP-TGCP-I10-050812

For EuroPacketCable 1.5 products the following PacketCable specifications are applicable:

PKT-SP-NCS1.5-I03-040712

PKT-SP-PROV1.5-I04-090624

PKT-SP-DQOS1.5-I04-090624

PKT-SP-CODEC1.5-I03-090624

PKT-SP-SEC1.5-I03-090624

PKT-SP-TGCP1.5-I03-040712

For the MTA's POTS interface and for the IPAT architecture, the following ETSI specifications (www.etsi.org) are applicable:

ETSI TS 101 909-18 v1.3.1

ETSI TS 101 909-23 v1.1.1

1.6 EuroPacketCable Multimedia Specifications

The following PacketCable-Multimedia specification is applicable: PKT-SP-MM-I06-110629.

Please also note that the document "EuroPacketCable Multimedia Stability" available on the Excentis website specifies minimum performance requirements.

1.7 Additional Specifications for CMs embedded in DVB-C Set-top Box

CMs embedded in DVB-C Set-top Box MUST implement:

SP-STB-v3.0-I01-110411

In case of a re-submission or of an OEM submission or of submission using the quick procedure for CM modules and this based on a product that already passed in the past still implementing SP-STB-v1.1-I02-061025, it is also allowed to support SP-STB-v1.1-I02-061025.



2 MIB requirements

The DOCSIS MIB requirements applicable to CW89 at CableLabs® are also applicable to the EuroDOCSIS products. This includes the current version of the Testing MIB as posted by CableLabs® on DocZone.

For EuroPacketCable 1.0 and 1.5 E-MTA products, the IETF drafts of the MTA/SIG MIBs rooted under the Excentis MIB branch are applicable. The required versions of these drafts (Excentis MTA MIB draft 6 and SIG MIB draft 9) can be downloaded from the Excentis web page. In SIG MIB draft 9 one correction is necessary:

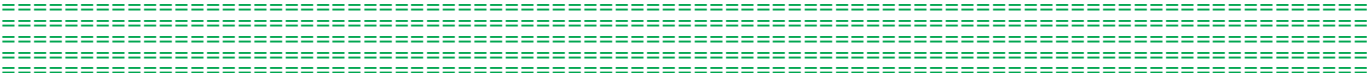
```
pktcSigDevMultiFreqToneTable OBJECT-TYPE  
.....  
::= { pktcSigDevConfigObjects 35 } -> must be 33
```

For EuroPacketCable 1.5 E-MTA products the MTA and SIG extension MIBs are also required, which are rooted under the Cable Europe Labs MIB tree (Cable Europe Labs extension SIG MIB draft 04, extension MTA MIB draft 01).

All applicable MIBs can be downloaded from the Excentis website.

Implementation of the IETF MTA and SIG MIBs (RFC 4682 and RFC 5098) is optional.

Support of the above MIB drafts also implies that an MTA must use these MIBs in its provisioning flow (SNMP signalling, configuration file...).



3 ECN requirements

For any submission, whether it is a EuroDOCSIS 1.0/1.1/2.0/3.0, EuroPacketCable 1.0/1.5 and/or EuroPacketCable Multimedia submission, the ECN cut-off date is Oct 21, 2011. This corresponds with the ECN cut-off date at CableLabs® for CW89.

ECNs of a later date MAY be implemented, but if done this must be stated in the Executive summary.

For the ECNs please check www.cablelabs.com.

For EuroPacketCable 1.5 products ECN PROV1.5-N-07.0391-6 must be supported with the following exceptions:

- Mandatory implementation of Excentis SIG MIB draft 09, MTA MIB draft 06, Cable Europe Labs extension SIG MIB draft 04, extension MTA MIB draft 01. Implementation of the IETF MTA and SIG MIBs (RFC 4682 and RFC 5098) is optional.
- If the Provisioning Server does not provide the option 'CL_V4_PACKETCABLE_MIB_ENV_OPTION' the MTA must assume a value of 0x03 (Cable Europe Labs) indicating the preference to use the Cable Europe Labs/Excentis MIBs
- Support for Cable Europe Labs MIBs in the MTA must be indicated in DHCP option 60 using TLV 5.23 with a value of 0x02 for Cable Europe Labs as the issuing organization



4 Optional features

4.1 Introduction

In the next section a number of optional features/interfaces are listed. The submitting vendor must indicate if it supports any of the optional features in part 4 (Optional Features List) of the Admission Application Forms.

The supported optional features will be tested, and if the product is compliant to the optional feature it will also be part of the public certification/qualification statement.

If the product is not compliant to the optional feature, it will not be reason for failing the product.

4.2 Overview optional features

For EuroDOCSIS 2.0 CPE support for IPv6 is optional.

For EuroDOCSIS 2.0 and 3.0 CMTSs, support of S-CDMA is optional for certification. However, in case S-CDMA is supported, the MSC feature (Maximum Scheduled Codes) must be supported. S-CDMA is not optional for CMTSs that are submitted against the S-CDMA feature set (for feature set based submissions).

For E-MTAs support of the following features is optional for EuroPacketCable certification: silence suppression, basic and hybrid provisioning flow, codecs other than PCMA/PCMU, Multiple Grants Per Interval, V.152 Voice Band Data.

For EuroPacketCable Multimedia products support of the Event Messaging interface is optional for certification.



5 Test plans

5.1 EuroDOCSIS

For EuroDOCSIS testing the DOCSIS® ATPs are followed as much as possible, with adjustments where necessary. For these ATPs please check www.cablelabs.com.

For ED3.0 products EuroDOCSIS-3.0-CM-ATP-20110411 is also applicable. The PHY.7-Wi-Fi test herein also applies to EuroDOCSIS 2.0 products.

For ED2.0 products that are submitted for ED2.0 + IPv6, test plan EuroDOCSIS-2.0+IPv6-ATP-20110801 becomes applicable.

Additionally for 1.1/2.0/3.0 products two specific test plans are relevant as well: MAC-100 and the corrected OSS-13.

These EuroDOCSIS test plans are available on the EuroDOCSIS participants portal of the Excentis website.

5.2 EuroPacketCable (Multimedia)

For EuroPacketCable 1.0/1.5 and EuroPacketCable Multimedia testing the Excentis test plans are being used. Information on how to get access to the test plans is available on the website: http://www.excentis.com/testing_cableeuropelabs_participantsportal.php

