

AP- 46

Ultrium Generation 4

**Format Specification Session
for:**

Fuji

HP

IBM

Imation

Maxell

Quantum

Sony

Tandberg Storage

TDK



Objectives

To provide Licensees with updates on the Ultrium Format and License Documents, and to further the development of the above documentation through discussions with the TPCs.



Confidentiality Obligation

This memo is to remind you that as part of your agreement with the TPCs you are under an obligation of confidentiality. This obligation prevents you from disclosing TPC Confidential Information to third parties. To allow more open discussion during this meeting you are hereby given limited permission to share TPC Confidential Information contained in the document(s) being discussed at this session with other licensees who are attending this session. This limited permission ends at the conclusion of the session. This written permission does not allow you to share TPC Confidential Information outside of this session. Additionally, this written permission does not allow you to disclose or discuss any information about the various fees associated with the LTO program. Finally, in accordance with your agreement with the TPCs, the TPCs have no obligation of confidentiality for any information you share with the TPCs.

AP Sessions

- Ground Rules
- TPC Announcements for each session
- Inquiries & Responses since last MGM

Ground Rules

- Discussion is limited to Format Specification, NOT implementation.
- No solicitation to be conducted in the meeting
- The TPC are responsible for making final decisions regarding the LTO Format Specification
- Speakers are asked to identify themselves & their company before speaking
- Responses to new inquiries will be evaluated with careful consideration by the TPC. This evaluation may be done outside of the LTO Manufacturers' Group meetings.
- Responses to new inquiries made during a LTO Manufacturers' Group meeting shall be made no later than the next such meeting.
- Attendee contact information will be included in the summaries unless specified otherwise.

Announcements

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The companies listed on this page are current compliance-verified cartridge manufacturers of the LTO Ultrium technology

Ultrium LTO-3	Ultrium LTO-4
Fujifilm	
Imation	
Maxell	
Sony	
TDK	



AP-46 Document List

TPC Confidential

Document	Filename	Date	Description	Provided to Licensee via:
Generation 1:				
U-18 (ECMA-319)	ECMA-319	Jun-01	Gen1 Format Spec	www.ecma-international.org
ECMA319 CVE 01 20051220	same	20-Dec-05	ECMA-319 Change Sheet	5 hard copies via courier
ECMA319 CVE 02 20060512	same	12-May-06	ECMA-319 Change Sheet	5 hard copies via courier
AU-11 (ECMA-321)	ECMA-321	Jun-01	Data Compression	www.ecma-international.org
Generation 2:				
U-28	LTO U28B1-Final_5a	28-Jul-03	Gen2 Format Spec	5 hard copies via courier
U28_B1_20031217	same	17-Dec-03	U-28 Change Sheet	5 hard copies via courier
U28_LOG_040702-Rev2.0	same	20-Jul-04	U-28 Change Sheet	5 hard copies via courier
U28B E01 20050824	same	24-Aug-05	U-28 Change Sheet	5 hard copies via courier
U28B CVE 01 20051220	same	20-Dec-05	U-28 Change Sheet	5 hard copies via courier
U28B CVE 02 20060512	same	12-May-06	U-28 Change Sheet	5 hard copies via courier
Generation 3:				
U-316	U316D_20059822	16-Aug-05	Gen3 Format Spec	5 hard copies via courier
U316D_E01_20050824	same	24-Aug-05	U-316 Change Sheet	5 hard copies via courier
U316D_E02_20051014	same	14-Oct-05	U-316 Change Sheet	5 hard copies via courier
U316D CVE 01 20051220	same	20-Dec-05	U-316 Change Sheet	5 hard copies via courier
U316D CVE 02 20060512	same	12-May-06	U-316 Change Sheet	5 hard copies via courier
Generation 4:				
U-416	U416D_20061225b	25-Dec-06	Gen4 Format Spec	5 hard copies via courier
U416D_ERRATA_01_20070125	same	25-Jan-07	U416 Errata #1	5 hard copies at MGM 33

New since the last DLM and described on the next page

Announcements

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U416 Rev D – Errata #1

Document Clause	Description of change
10.2 Test Conditions	Replace: TBD (7') By: 7' Reason: This value is acceptable for a nominal Gen 4 head
12.9 Location of Data Tracks value l_5	Replace: 187,7 By: 188,7 Reason: Correct typographical error
Table D.13 b Cartridge Content Data	Add to end of Byte 0 bit 6: If Byte 0 bit 4 is set to ONE, then this bit shall be ignored. Reason: To clarify that bit 4 has precedence over bit 6.
Table D.13 b Cartridge Content Data	Replace: Byte 0, bit 4. Vendor Unique Cartridge: This bit shall be set to ONE if the data is not intended for interchange. The data written to the media may not conform to all requirements of this LTO format. By: This bit shall be set to ONE if the data is not intended for interchange, and the data written to the media may not conform to all requirements of this LTO format. Reason: To clarify the relation between setting to ONE and the written format.



Inquiries and Responses since last DLM

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DLM#39 Servo Stripe Polarity Response (#30)

Comment from Tandberg Storage:

Tandberg does not believe that Question #30 is closed, and has sent an email on January 17, 2007 to describe why they believe that a potential interface problem still exists.

Response:

Perhaps it would be helpful to review the purpose of the sections of the servo frame specification in 11.2.3. It can be considered as 2 separate sections—the placement of the marks down the tape and the geometry of the marks on the tape as written. We understand Tandberg's concern to be confusion over the centerline used in Table 1. The centerline definition is defined in the 4th paragraph of this section. This portion of the specification is valid in forward direction as it sets the position of the marks down tape. Table 1 is intended to specify the geometry of the marks and is applicable in both directions.

Does this answer Tandberg's concern?

Inquiries and Responses since last DLM

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DLM#40 TBD's in U419D

Question from Tandberg Storage:

What is the plan for the remaining TBD's in the U419D specification?

Response:

- Section 10.2 has been updated by Errata #1
- Section 13.3.4 is an appropriate TBD because the TPCs do not know what the IEEE committee will do with this item

Announcements

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This concludes the AP-46
Session
Any Questions or
Discussion?

AP – 45 is next for those who have
a Gen4 Cartridge or Mechanism License:

Fuji
HP
IBM

Imation
Maxell
Quantum

Sony
Tandberg Storage
TDK