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Technical requirements of ethernet over SDH

在同步数字体系（SDH）上传送以太网帧的技术要求

(English Translation)

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Foreword

This standard rule according to GB/T 1.1-2009 given draft.

The Standard is a modified ITU-TX.86/Y.1323 "transmit Ethernet frames on the technical requirements of the synchronous digital hierarchy (SDH)", specification LAPS-based Ethernet transmission technology requirements. In order to reflect the integrity of the standard, to ensure use of standard devices Interoperability, international standards on the body of Annex I Chapter 11 of this standard as an information retention II Appendix A Appendix international standards, at the same time in order to distinguish with other standards in the transport technical differences, increase the informative Appendix B. For ease of use, this standard also removes States International standards foreword.

The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

The standard by the China Communications Standards Association.

This standard was drafted. Wuhan Research Institute of Posts and Telecommunications.

1 Scope

This standard specifies the Ethernet frame (as defined by the IEEE802.3 working group) over SDH protocol stack, including the framework agreement, was Physical layer specification, link layer services and specifications, technical modifications adopted ITU-TX.86 recommendations. LAPS protocol standards introduced and LAPS specification is used to provide Ethernet adapter. LAPS describes a similar HDLC framing structure to encapsulate IEEE

802.3 Ethernet MAC frame and that provides a point to point full duplex operation.

This standard applies to synchronous digital hierarchy (ITU-TG.707), but this standard does not set specific mapping method LAPS to SDH, and for all Ethernet-based protocols (including IEEE802.3 Ethernet) as well as all SDH standards do not make any changes.

Note 1: The Ethernet over SDH method can be extended or modified to support new data services.

Note 2: ITU-TX.86 standards adopted in the LAPS will not work with HDLC (ISO 3309 or RFC1662) LAPB/ITU-TX.25, LAPD/ITU-TQ.921 and LAPF/ITU-TQ.922 used simultaneously in the same physical link.

Note 3: This standard can be used for SDH substrate connection with IEEE802.3 Ethernet.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

ITU-TG.703 (1998) Synchronous Digital Interface Physical/electrical characteristics (Physical/electrical characteristics of hierarchical digital interfaces) ITU-TG.707 (1996) Synchronous Digital Hierarchy (SDH) network node interface (Network node interface for the synchronous digital hierarchy (SDH)) ITU-TG.708 (1999) Synchronous Digital Hierarchy (SDH) subclass STM-0 network node interface (Sub STM-0 network node interface for the synchronous digital hierarchy (SDH)) ITU-TG.957 (1995) synchronous digital equipment and systems related to optical interfaces ((Optical interfaces for equipments and systems relating to the synchronous digital hierarchy)) ITU-TX.85/Y.1321 based on the use of SDH LAPS IP technology (IP over SDH using LAPS) IEEE802.3 (2001) CSMA/CD Access Method and Physical Layer Specifications (Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications)

3 Terms and Definitions

The following terms and definitions apply to this document.

Ethernet over SDH transmission EthernetoverSDH Mixed data communication structure
Ethernet (IEEE802.3) and SDH network. The physical layer is defined as SDH, the second
layer into three units Combinations. LLC/MAC/LAPS.