



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# H.261

(03/93)

**LINE TRANSMISSION OF NON-TELEPHONE  
SIGNALS**

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**VIDEO CODEC FOR AUDIOVISUAL  
SERVICES AT  $p \times 64$  kbits**

**ITU-T Recommendation H.261**

(Previously "CCITT Recommendation")

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## FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation H.261 was revised by the ITU-T Study Group XV (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

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## NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms “CCITT, CCIR or IFRB” or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## VIDEO CODEC FOR AUDIOVISUAL SERVICES AT $p \times 64$ kbit/s

(Geneva, 1990; revised at Helsinki, 1993)

The CCITT,

*considering*

- (a) that there is significant customer demand for videophone, videoconference and other audiovisual services;
- (b) that circuits to meet this demand can be provided by digital transmission using the B, H<sub>0</sub> rates or their multiples up to the primary rate or H<sub>11</sub>/H<sub>12</sub> rates;
- (c) that ISDNs are likely to be available in some countries that provide a switched transmission service at the B, H<sub>0</sub> or H<sub>11</sub>/H<sub>12</sub> rate;
- (d) that the existence of different digital hierarchies and different television standards in different parts of the world complicates the problems of specifying coding and transmission standards for international connections;
- (e) that a number of audiovisual services are likely to appear using basic and primary rate ISDN accesses and that some means of intercommunication among these terminals should be possible;
- (f) that the video codec provides an essential element of the infrastructure for audiovisual services which allows such intercommunication in the framework of Recommendation H.200;
- (g) that Recommendation H.120 for videoconferencing using primary digital group transmission was the first in an evolving series of Recommendations,

*appreciating*

that advances have been made in research and development of video coding and bit rate reduction techniques which lead to the use of lower bit rates down to 64 kbit/s so that this may be considered as the second in the evolving series of Recommendations,

*and noting*

that it is the basic objective of the CCITT to recommend unique solutions for international connections,

*recommends*

that in addition to those codecs complying to Recommendation H.120, codecs having signal processing and transmission coding characteristics described below should be used for international audiovisual services.

### NOTES

- 1 Codecs of this type are also suitable for some television services where full broadcast quality is not required.
- 2 Equipment for transcoding from and to codecs according to Recommendation H.120 is under study.

## 1 Scope

This Recommendation describes the video coding and decoding methods for the moving picture component of audiovisual services at the rates of  $p \times 64$  kbit/s, where  $p$  is in the range 1 to 30.

## 2 Brief specification

An outline block diagram of the codec is given in Figure 1.

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