Annex E
Patents
(This annex does not form an integral part of this Recommendation | International Standard)

E.1 Introductory remarks

The user’s attention is called to the possibility that compliance with this Specification may require use of an invention covered by patent rights.

By publication of this Specification, no position is taken with respect to the validity of the claim or of any patent rights in connection therewith. However, for each patent listed in this Annex, the patent holder has filed with the ISO/IEC Information Technology Task Force (ITTF) and the Telecommunication Standardization Bureau (TSB) a statement of willingness to grant a license under these rights on reasonable and non-discriminatory terms and conditions to applications desiring to obtain such a license.

The criteria for including patents in this annex are:

1) The patent has been identified by someone who is familiar with the technical fields relevant to this Specification, and who believes use of the invention covered by the patent is required for implementation of one or more of the coding processes specified.

2) The patent holder has filed a letter with the ITTF and the TSB stating willingness to grant a license to an unlimited number of applicants throughout the world under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

During maintenance of this Specification, the list of patents shall be updated, if necessary, upon any revisions to the Recommendation | International Standard.

E.2 List of patents

Only patents in the home countries of the patent-holding corporations are listed. In many cases foreign filings have been made.

1) IBM, A method and means for pipeline decoding of the high to low order pairwise combined digits of a decodable set of relatively shifted finite number of strings, US 4 295 125, Oct. 13, 1981.

2) IBM, A method and means for carry-over control in a high order to low order combining of digits of a decodable set of relatively shifted finite number strings, US 4 463 342, July 31, 1984.


4) IBM, Method and means for arithmetic coding using a reduced number of operations, US 4 286 256, August 25, 1981.


9) IBM, Arithmetic coding encoder and decoder system, US 4 905 297, February 27, 1990.


14) AT&T, Edge decomposition for the transmission of high resolution facsimile images, US 4 873 577, October 10, 1989.


16) AT&T, Efficient encoding/decoding in the decomposition and recomposition of a high resolution image utilizing its low resolution replica, US 4 979 049, December 18, 1990.


20) KDD, Methods for reduced-sized images, Japan Application No. 63-212 432, pending in Japan.

21) KDD, Image reduction system, Japan Application No. 1-167 033, joint with Canon, pending in Japan.

22) Mitsubishi, Facsimile encoding communication system, Japan 1 251 403, July 6, 1984.

23) Mitsubishi, Encoding method, pending in Japan.

24) Canon, Image reduction system, Japan Application No. 1-167 033, joint with KDD, pending in Japan.

E.3 Contact addresses for patent information

Director, Telecommunication Standardization Bureau (formerly CCITT)
International Telecommunication Union
Place des Nations
CH-1211 Genève 20
Switzerland
Tel: +41 (22) 730 5111
Fax: +41 (22) 730 5853

ITTF
International Organization for Standardization
1, rue de Varembé
CH-1211 Genève 20
Switzerland
Tel: +41 (22) 734 0150
Fax: +41 (22) 733 3843

Program Manager, Licensing
Intellectual Property and Licensing Services
IBM Corporation
208 Harbor Drive
P.O. Box 10501
Stamford, Connecticut 08904-2501
Tel: +1 (203) 973 7935
Fax: +1 (203) 973 7981 or +1 (203) 973 7982

Mitsubishi Electric Corp.
Intellectual Property License Department
1-2-3 Morunouchi, Chiyoda-ku
Tokyo 100, Japan
Tel: +81 (3) 3218 3465
Fax: +81 (3) 3215 3842

CCITT Rec. T.82 (1993 E)
International Affairs Department
Kokusai Denshin Denwa Co. Ltd.
3-2 Nishishinjuku 2-chome
Shinjuku-ku
Tokyo 163, Japan
Tel: +81 (3) 3347 6457
Tel: +81 (3) 3347 6470

AT&T Intellectual Property Division Manager
Room 3A21
10 Independence Blvd.
Warren, NJ 07059, USA
Tel: +1 (908) 580 5392
Fax: +1 (908) 580 6355

Senior General Manager
Corporate Intellectual Property and Legal Headquarters
Canon Inc.
30-2 Shimomaruko 3-chome
Ohta-ku, Tokyo 146, Japan
Tel: +81 (3) 3758 2111
Fax: +81 (3) 3756 0947