JT-T30 Procedures for Document Facsimile Transmission in a General Switched Telephone Network

1. Relations with international standards

This standard describes the procedures and signals to be used where Group 3 facsimile equipments are operated over the general public switched telephone network. This standard is based on ITU-T Recommendation T.30 that was recommended at the ITU-T in August 2001.

2. Summary of departures from ITU-T Recommendations

2.1 Selection of optional items

None

2.2 Decision of national matter items

(1) The definitions for the provider code is determined. (See Sec. 5.3.6.2.7)

(2) Regarding the facsimile call establishment, in case of an automatic operation at the calling station, the calling station is allowed to dial desired number after an appropriate lapse of time from the closing of direct current loop as well as after a detection of dial tone. (See Section 3.1.3 , 3.1.4 and 3.1.5)

(3) The paper size used for the parameter definition is determined on A4, B4 and A3, instead of ISO A4, B4 and A3. (See Table 5-2/JT-T30, Note 10 and Note 28)

2.3 Advanced items

None

2.4 Added items

(1) T5 timer for Error Correction Mode (ECM)

(See ANNEX A , A.5.4.1 Note.)

The reason for setting this timer to 60±5 or more seconds is to allow for a longer-than-standard document.

(2) Send-timing for CTC/EOR

(See ANNEX A , A.1.3 Note.)

The communication efficiency may be improved if the transmitting terminal sends CTC to step down the modem speed and continue communication before the fourth PPR is received. In this case, the send-timing of CTC and EOR follows the reception of the nth PPR. (1<n <4)

This change does not result in any problem in communication with ITU-T Recommendation facsimile devices.

(3) As the description of main body of ANNEX B gives a general idea, two sentences 'The following gives a general idea' are added.

(4) For clarification, an example is added in the section 5.3.6.2.8.

(5) For clarification, Note T1, and T2 are added in the Table 5-1/JT-T30.

(6) About the receive capability of colour and gray scale, Note T3 is added in the Table 5-1/JT-T30.

(7) For clarification of the description about the receive capability, the explanation is added on Note 80 in Sec. 5.3.6.2.3.

2.5 Deleted items

In this standard, the following items are deleted from the ITU-T Recommendation.

(a) G3 facsimile on ISDN(64kbit/s option F[G3F])

(b) Processable mode

(c) The full-duplex modulation system operatable in V.8 and V.34.

(d) T1 timer restart in the procedure using the half-duplex modulation system defined in V.8 and V.34.

(e) Procedures for Group 3 document facsimile transmission using the HKM and HFX system

(f) Override mode

(g) The transmission procedure of Mixed Raster Content(MRC) for Group 3 document facsimile ,defined in ANNEX J.

The reason why item (a) ,(c) ,(d) ,(e) ,(f) and (g) are deleted is that the technical study of it is not sufficient and that there is little need to standardize it. The reason why item (b) is deleted is that the technical study of them is not sufficient and that they are for further study.

2.6 Amendments to international Recommendation

(1) In the international Recommendation which this standard is based on, the following items are amended, since they are thought to be clearly mistaken, judging from the context.

Items in this Standard	Description in the International Recommendation	Description in this standard (after amended)
ANNEX D.4	default Huffman table	preferred Huffman table
FIGURE 5-2/JT-T30	(CSI)DIS	(NSF)(CSI)DIS

FIGURE 5-8/JT-T30	Training, FAX MSG
	--------> MEMORY BUSY
	      occurred
	PPS MPS(0,1)
	>
		Training, FAX MSG
		-------->
		
		PPS MPS(0,1)
		> MEMORY BUSY
		      occurred

Appendix6 section2	Appendix A	Annex A
Appendix6 section3	calling terminal	Tansmitting terminal

FIGURE 4-12/JT-T30		Note2
Section5.3.6.2	the definition of the information in the DIS, DCS, DTC, CSI, CIG, TSI, NSC, NSF, NSS, PWD, SEP, SUB, FDM, CTC, PPS and PPR signals	the definition of the information in the DIS, DCS, DTC, CSI, CIG, TSI, NSC, NSF, NSS, PWD, SEP, SUB, SID, PSA, FNV, FDM, CTC, PPS and PPR signals
Section5.3.6.2.14	Internet address type 0000 reserved (set to "0") 0110 reserved (set to "0")	Internet address type 0000 reserved 0110 reserved
TABLE 5-1/JT-T30 (Note26)	PWD/ SEP/ SUB	PWD/ SEP/ SUB/ SID
TABLE 5-2/JT-T30 (Note1)	The "+" character shall not be used in the PWD/SEP/SUB signals.	The "+" character shall not be used in the PWD/SEP/SUB/SID/PSA signals.
Section5.3.6.1.6		not applied to RR signal

(2) In order to give the proper description in the international Recommendation, the following items are amended in this standard.

Items in this Standard	Description in the international Recommendation	Description in this standard (after amended)
FIGURE B-1/JT-T30 & FIGURE B-2/JT-T30	Begin recorded announcement (OGM1)	Begin recorded announcement of TOGM1 (OGM1)
FIGURE B-1/JT-T30 & FIGURE B-2/JT-T30	Recorded announcement (OGM3)	Send recorded announcement of TOGM3 (OGM3)
FIGURE B-1/JT-T30 & FIGURE B-2/JT-T30 (Note 2)	T1-(OGM1)-(OGM3)	T1-TOGM1-(TOGM3)
Section 3.1.5.2 Call event No.4	Transmit ANSam	Transmit CED or ANSam
FIGURE 3-5b/JT-T30	CED heard	CED or ANSam heard
Section 5. (Note 3)	V.27ter, V.29	V.27ter, V.29, V.17
Section 5.3.6.1.2 PSA	(See the coding format in Section 5.3.6.2.13)	(See the coding format in Section 5.3.6.2.14)

2.7 Others

(1) Annexes of international Recommendation correspond to Annexes of this standard as follows.

International Recommendation	Contents	This standard
ANNEX A	Error Correction Mode (ECM)	ANNEX A
ANNEX B	BFT diagnostic message	ANNEX C
ANNEX C	G3 facsimile on ISDN	---
ANNEX D	Automatic terminal Selection procedure	ANNEX B
ANNEX E	Procedure for colour images	ANNEX D
ANNEX F	Procedures for Group 3 facsimile transmission using the half-duplex modulation system defined in Recommendation V.34	ANNEX F
ANNEX G	Procedure for the Group 3 document facsimile transmission using the HKM and HFX system	---
ANNEX H	Security in facsimile G3 based on the RSA algorithm	ANNEX F
ANNEX I	Procedure for the Group 3 document facsimile transmission of colour and gray-scale images using T.43	ANNEX G
ANNEX J	Procedure for Group 3 document facsimile transmission of mixed raster content (MRC) images	---

Note: ANNEX F does not form an integral part of this standard ,because the technical study of this annex is not sufficient.

(2) Appendixes of international Recommendation correspond to Appendixes of this standard as follows.

International Recommendation	Contents	This standard
Appendix I	Index of abbreviations used in this Recommendation	Appendix I
Appendix II	List of commands and appropriate responses	Appendix II
Appendix III	Alternative procedures used by some terminals which conform to the pre 1996 versions of this Recommendation	Appendix III
Appendix IV	Signal sequence examples	Appendix IV
Appendix V	Procedure for binary file transmission with protocol examples	Appendix VI
Appendix VI	Mixed Raster Content Example	---
---	Internet rooting/polling examples	Appendix VII
Appendix VII	Application rules for use of V.8 with Group 3 Facsimile	Appendix VIII
---	Signal sequence examples of Error Collection Method(ECM)	Appendix V

3. History of revision

Version No.	Date	Content of revision
1st version	May 31, 1988	First edition
2nd version	April 25,1990	Clarification of description of provider code
3rd version	April 26,1991	Modification due to the addition of high speed modem and MMR coding scheme in the revision of ITU-T Recommendation T.30
4th version	November 26,1992	Modification due to the addition of high resolution mode in the revision of ITU-T Recommendation T.30
5th version	April 27,1993	Modification due to the addition of automatic terminal selection in the revision of ITU-T Recommendation T.30

6th version	April 26,1994	Modification due to the addition of File transfer,Character mode, Mixed mode password, selective polling, subaddress in the revision of ITU-T Recommendation T.30
7th version	April 27,1995	Modification due to the addition of procedure for colour images transmission and mandatory CNG transmission in the revision of ITU-T Recommendation T.30
8th version	April 24,1996	Modification due to the addition of North American Letter and Legal, Progressive bi-level image compression, and the clarification of PWD/SEP/SUB bit definition in the revision of ITU-T Recommendation T.30
9th version	April 23,1997	Modification due to the addition of V.8/V34 modem, the deletion of V.33 modem and G1/G2 facsimile, the modification of DIS/DTC/DCS bit definition and other clarification of explanations in the revision of ITU-T Recommendation T.30
10th version	April 28,1998	Modification due to the addition of SID,PSA,EOS,FNV signals ,procedure for the transmission of colour and gray-scale images, secure features, and the modification of DIS/DTC/DCS bit definition and associated notes in the revision of ITU-T Recommendation T.30
11th version	April 22,1999	Modification due to the addition of a new post dialing delay timer T0 and an indication of Internet facsimile capabilities , and the clarification of usage of SEP/SUB/PSA/PWD/SID signals in the revision of ITU-T Recommendation T.30
12th version	April 20,2000	Modification due to the introduction of BFT negociation , phase C , the manual communication mode using V.34, and the introduction of CSA/TSA/CIA/IRA/ISP signals for Internet related features in the revision of ITU-T Recommendation T.30
13th version	April 19,2001	Modification due to the adiition of the double-sided printing capability, the transmission sequence of the country code, and DIS/DTC/DCS bit for the addition of the colour resolution etc. in the revision of ITU-T Recommendation T.30
14th version	May 30,2002	Modification due to the correction of the table for the bit combination in colour transmission, the addition of DIS/DTC/DCS bit for IP recognized facsimile, and the modification of the national matter items in the revision of ITU-T Recommendation T.30

4.Others

(1) Recommendations and Standards for reference
  ITU-T Recommendations
    V.8, V.17, V.21, V.27ter, V.29, V.33, V.34
    T.6, T.81,T.82
  TTC Standards
    JT-T4, JT-T42, JT-T43,JT-T85
  ISO/IEC standards
    ISO/IEC 10918-1,9796,9979,11544, CIE publication NO.15.2