CCITT SGXV
Working Party XV/1
Specialists Group on Coding for Visual Telephony
Stuttgart, 13-16 June 1989

Document #516
May 31, 1989

SOURCE: JAPAN
TITLE : INTERFACE BETWEEN CODEC AND TERMINAL ADAPTOR

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1. Introduction

Definition of polarity is proposed for the reference points R (between CODEC and TA, Terminal Adaptor) and S/T (between TA and NT, Network Termination).

2. System Model

According to the ISDN user/network interface model, the reference points T/S and R are depicted in Figure 1.

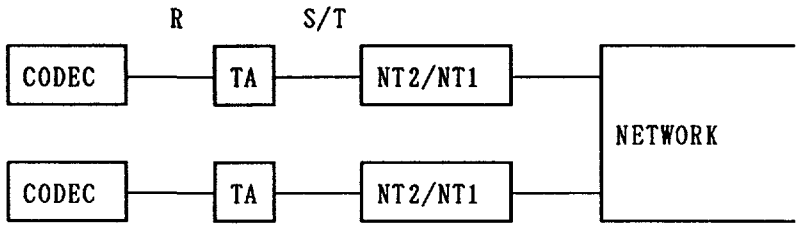


Figure 1 Configuration of ISDN terminal and network

3. Definition of TA Input/Output Polarities

Inversion of logical binary code (1 or 0) is not allowed between the reference points R and S/T.

4. Correspondence between Logical Binary Code 1/0 and Physical Signals

4.1 RS422 interface at the reference point R

"1" Potential of lead A is negative to that of lead B in Figure 3.
"0" Potential of lead A is positive to that of lead B in Figure 3.

It is noted that in RS422 the physical signal representing logical binary code "1" also represents "MARK" and "OFF" while the physical signal representing logical binary code "0" also represents "SPACE" and "ON". As to the transmission procedure between CODEC and TA, we will use the one depicted in Appendix at the compatibility tests in Japan.

4.2 I.430 interface at the reference point S/T

"1" No line signal in the pseudo-ternary-code as in Figure 4.
"0" Positive or negative pulse in the pseudo-ternary-code as in Figure 4.

END

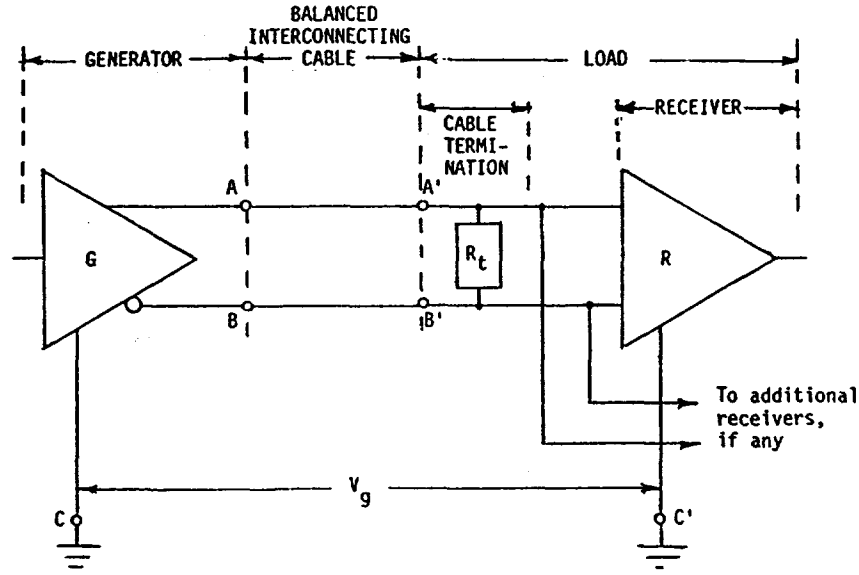


Figure 3 RS422 interface circuit

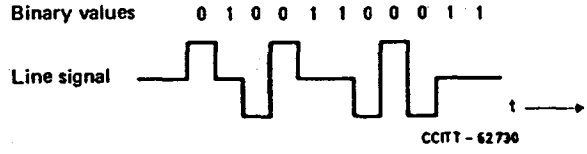
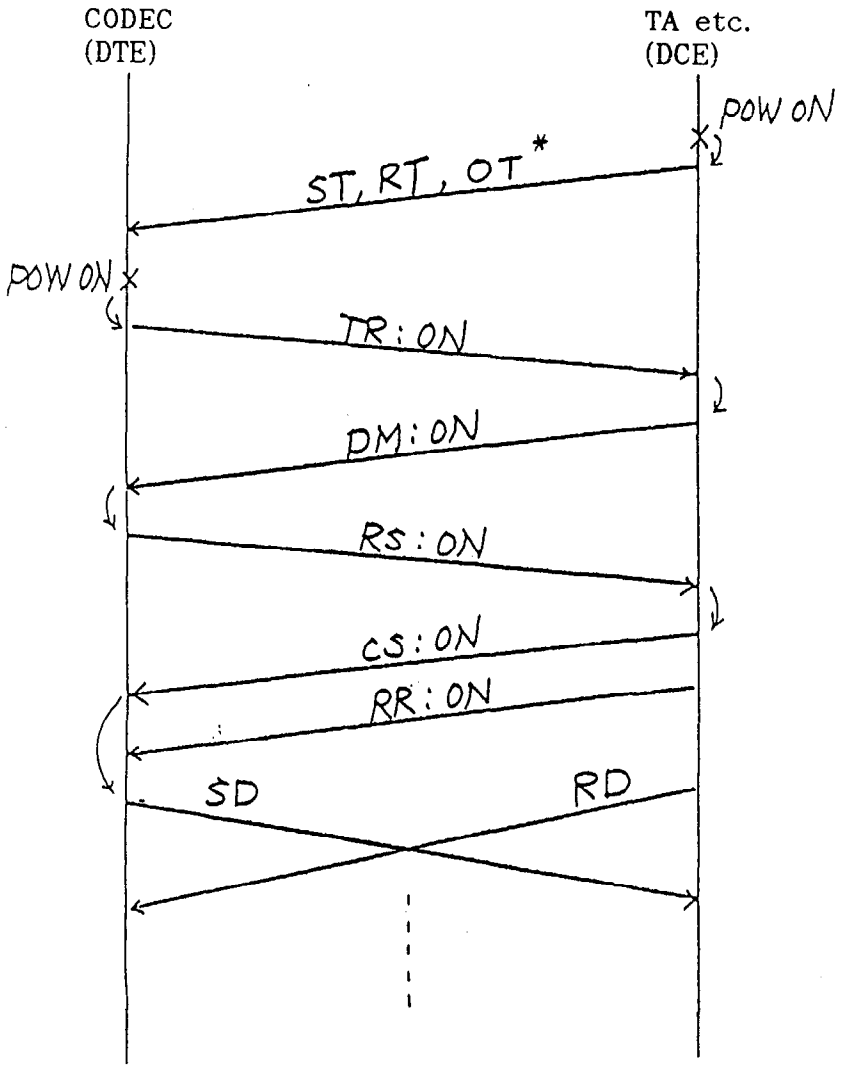


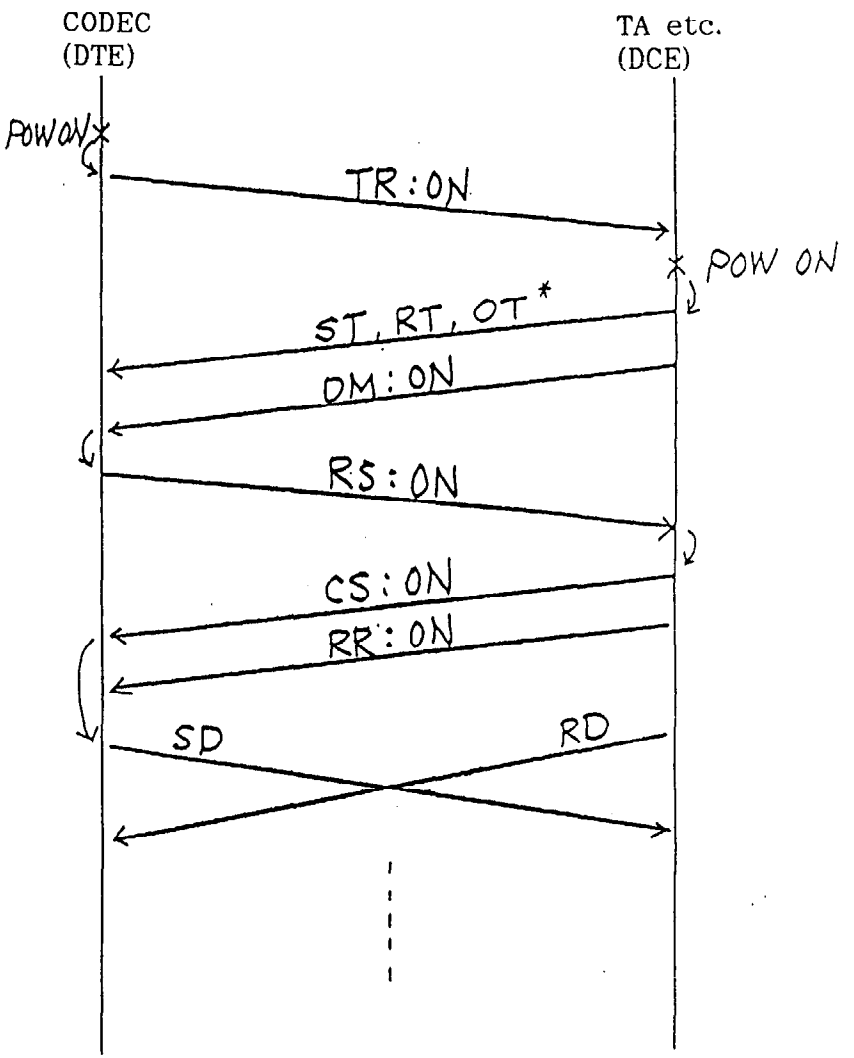
FIGURE 4/L430

Pseudo-ternary-code example of application

Figure 4 I.430 line code



(a) DCE is first turned on.



(b) DTE is first turned on.

* Octet Timing
ISDN 8 kHz timing which is added to make SD synchronized with the network.

Transmission procedure between CODEC and TA etc.