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CCITT SGXV
Working Party XV/1
Specialist Group on Coding for Visual Telephony

Source: Delta Information Systems
Title: Conformance Checker

At the Specialists Group Meeting in March, 1988, Delta agreed to submit a plan for a "Conformance Checker" to verify the performance of video decoders manufactured according to CCITT Recommendation H.261 for N x 384 Kbps and forthcoming Recommendations for M x 64 Kbps. This document describes a test signal generator to accomplish this validation function.

The design of the Tester is based upon the Personal Computer (PC/AT). Delta will develop a special circuit card compatible with the PC bus and a corresponding software package for the PC. The encoded video sequence will be stored in the PC RAM and will be transferred in real time to the PC card. Initially there will be two modes of operation; a conformance test mode and a custom test mode. The purpose of the conformance test mode is to verify that the video decoder being tested does, or does not, conform to Recommendation H.261. Conformance will be verified if the decoder properly decodes a specific set of test signals each of which will be designed to validate a particular function, or group of functions, of the decoder. Proper decoding will be determined by visually observing the picture from the decoder for each test to verify that it is correct.

The purpose of the custom test mode is to permit the user to set up custom tests for his particular requirements. In general specific parameters of the conformance test signals will be able to be modified for this purpose. For example the user could select any gray shade or combinations of colors on either side of the moving edge.

The Tester will have the potential for accepting encoded pictures as input by means of floppy disk.

The table below compares key parameters of the existing tester with the proposed tester.

	Present	Proposed
Number of Pictures in Sequence	139	398
Service Channel Multiframes	29	83
Sequence duration (sec.)	4.64	13.28
Picture Rate	29.9569	29.96988 (within tolerance of 29.97 ± 50 PPM)
Bytes in Sequence	227,720	637,440 (PC should have at least 1 Mbyte RAM)