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Digital Transport of Video Teleconferencing/Video Telephony Signals – Video Test Scenes for Subjective and Objective Performance Assessment

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Contents

Page

Foreword ii

1 Scope, purpose, and application 1

2 Normative references 2

3 Abbreviations 2

4 Test tape 2

Tables

1 Description of test scenes 3

2 Sample images of test scenes 5

Figure

1 Digital transmission service channel with interfaces 1

Annexes

A Test tape timing description 11

B Calibration and test setup 15

C Brief statistics for 25 scenes rated for video quality 19

D Bibliography 23

Foreword (This foreword is not part of American National Standard T1.801.01-1995.)

The availability of standard test material for testing the performance of video codecs is a recognized industry need. In 1992, the CCIR (now known as ITU-R) published Recommendation 802. This Recommendation primarily addressed the need for studio quality test pictures and sequences for subjective assessments of digital codecs conveying signals produced according to CCIR Recommendation 601. Committee T1A1 has produced a set of test scenes appropriate for testing Video Teleconferencing/Video Telephony (VTC/VT) systems. A few of the VTC/VT test scenes that were selected by T1 members were obtained from CCIR Recommendation 802 source material (whose test segments are in the public domain). The other test scenes were submitted directly by members of T1. These VTC/VT test scenes have subsequently been used to conduct both subjective tests and objective tests.

The program of work for the VTC/VT project includes the development of a standard video test tape to be used in the correlation of subjective and objective test results. The resulting test tape, in D2 digital format, is available from the Alliance for Telecommunications Industry Solutions, 1200 G Street, NW, Suite 500, Washington, DC. This text document provides an explanation of the content of the tape and its use.

This standard contains four annexes. Annex A is normative and is considered part of this standard. Annexes B, C, and D are for information only.

Suggestions for improvement of this standard will be welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, 1200 G Street, NW, Suite 500, Washington, DC 20005.

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American National Standard for Telecommunications –

Digital Transport of Video Teleconferencing/Video Telephony Signals – Video Test Scenes for Subjective and Objective Performance Assessment

1 Scope, purpose, and application

1.1 Scope

This standard specifies a collection of test scenes that have been used for subjective assessment and may be used in future objective assessment of Video Teleconferencing/Video Telephony (VTC/VT). The scenes represent limited examples of the content that may be found in VTC/VT usage. The collection does not constitute a balanced set of scenes in any known way, and use of the scenes to determine an overall performance assessment is beyond the scope of this standard. Other test scenes may be used in video performance assessment, but their specification is also beyond the scope at this time. The test scenes identified within this standard are applied at the analog input interface shown in figure 1. Service channel interfaces (analog input and analog output) are between VTC/VT transmission service providers and end-users.

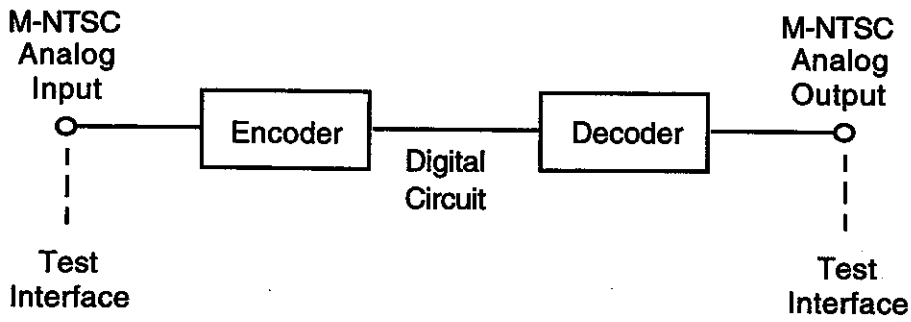

Figure 1 – Digital transmission service channel with interfaces

1.2 Purpose

The purpose of this standard is to make available to the industry a collection of video test scenes for the subjective performance evaluation of VTC/VT transmission systems on digital transport. It is intended to provide a common understanding by manufacturers, carriers, and their customers; and to aide in the development of objective test methodologies that statistically correlate to the subjective performance.

1.3 Application

The primary application of this collection of test scenes is in the assessment of VTC/VT transmission systems according to standardized methods. Some test scenes have an accompanying audio track, but the audio must be used carefully if at all because of the variation in master audio quality. Test