

Test Procedure Outline for ISDN/IP Videoconferencing Equipment

Model:
Software Version:
Model Modifications Add-ons, etc.:
Date of Test:

<Name of Equipment>

<Picture of equipment>

CONTENTS

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A: SETUP PROCEDURE

(Describe installation process including any significant problems encountered)

Approximate setup time: ___ hours ___ minutes

Documentation Quality: _____

B: HARDWARE DESCRIPTION

General

Dimensions (w x h x d): ____ x ____ x ____

Video Inputs Composite/YC Connector

- 1.
- 2.
- 3.
- 4.
- 5.

Video Outputs Composite/YC Connector

- 1.
- 2.
- 3.
- 4.
- 5.

Audio Inputs Level Connector

- 1.
- 2.
- 3.
- 4.
- 5.

Audio Outputs Level Connector

- 1.
- 2.
- 3.
- 4.
- 5.

Data

- 1.
- 2.
- 3.
- 4.
- 5.

Other

Comments (e.g. problems encountered with wiring or connectors, etc.)

Cables Supplied

Mobility (Comment on portability of equipment if applicable, setup time, etc.)

System Operation (Comment on method of operation)

C: VIDEO TESTS

For all the following tests at ISDN 2 (128 kbit/s) the corresponding audio standard will be G.728 and for ISDN 6 (384 kbit/s) it will be G.722 unless otherwise indicated.

Objective Video Tests:

Signal measurements
75% EBU bars
Grey scale

Subjective Video Impairments Tested:

1. Lip synchronisation LS
2. Block distortion (tiling) BLK
3. Blurring (reduced edge sharpness and spatial detail) BLR
4. Colour errors CLR
5. Jerkiness (distortion of smooth motion) JRK
6. Object persistence (lagging images from previous frames as faded or outline images) OP
7. Scene cut response (i.e. time to build up the new image) SCR

Scale of Impairments:

Imperceptible 1
Perceptible 2
Slightly annoying 3
Annoying 4
Very annoying 5

Highband SP Test Tape:

Signals recorded Time on tape

1. EBU colour bars 1min 30secs
2. Grey scale 1.40 - 2.40
3. Blue field 2.50 - 3.50
4. Medium close up female face, still 4.00 - 5.00
5. Medium close up female face, talking 5.10 - 6.10
6. Close up face, nodding 6.20 - 7.20
7. Close up face, shaking head side to side 7.30 - 8.30
8. Zoom out slowly to wide angle three people 8.40 - 9.40
9. Zoom in quickly to close up of centre person 9.50 - 10.50
10. Turntable speeds: 1, 2, 3 and 4 11.00 - 15.30
11. Football sequence 15.40 - 16.40
12. Zoom in and zoom out of "A to Z" map 16.50 - 17.50
13. Text legibility, font sizes 20 to 12 pt 20.30 - 20.50
14. Vision cut tests, fast transitions between various scenes 21.00 - 22.00
15. Man teaching at whiteboard 22.10 - 23.23

To ensure accuracy of measurement at the remote site, all signals are to be monitored prior to transmission.

Video Measurements:

Test 1a (H.261): Colour bar test

(Insert 75% EBU bars at local site, measure at remote site)

Peak to peak video amplitude ___ v
Peak to peak sync amplitude ___ v
Peak to peak burst amplitude ___ v
Do chroma vectors lie in their boxes Yes/No
Any waveform aberrations? Describe

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 1b (H.263): Colour bar test
(Insert 75% EBU bars at local site, measure at remote site)

Peak to peak video amplitude ___ v
Peak to peak sync amplitude ___ v
Peak to peak burst amplitude ___ v
Do chroma vectors lie in their boxes Yes/No
Any waveform aberrations? Describe

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 2a (H.261): Grey scale
(Insert grey scale at local site, measure at remote site)

Peak to peak video amplitude ___ v
Peak to peak sync amplitude ___ v
Any waveform aberrations?

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 2b (H.263): Grey scale
(Insert grey scale at local site, measure at remote site)

Peak to peak video amplitude ___ v
Peak to peak sync amplitude ___ v
Any waveform aberrations? Describe

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 3a (H.261): Blue screen
(Insert blue screen at local site, measure at remote site)

Any waveform aberrations? Describe

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
CLR ___ ___ ___

Test 3b (H.263): Blue screen
(Insert blue screen at local site, measure at remote site)

Any waveform aberrations? Describe

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
CLR ___ ___ ___

Test 4a (H.261): Medium close up female (still)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 4b (H.263): Medium close up female (still)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

Test 5a (H.261): Medium close up female (talking)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"
LS ___ ___ ___
BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 5b (H.263): Medium close up female (talking)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

LS _____
BLK _____
BLR _____
CLR _____
JRK _____

Test 6a (H.261): Close up head (nodding)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____
BLR _____
CLR _____
JRK _____

Test 6b (H.263): Close up head (nodding)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____
BLR _____
CLR _____
JRK _____

Test 7a (H.261): Close up head (shaking side to side)
Subjective Impairments 128 kbit/s 384 kbit/s "25 fps"

BLK _____
BLR _____
CLR _____
JRK _____

Test 7b (H.263): Close up head (shaking side to side)
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____
BLR _____
CLR _____
JRK _____

Test 8a (H.261): Medium close up, slow zoom out to three shot
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____
BLR _____
CLR _____
JRK _____

Test 8b (H.263): Medium close up, slow zoom out to three shot
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____

BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 9a (H.261): Three shot, quick zoom in to medium close up of centre person
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 9b (H.263): Three shot, quick zoom in to medium close up centre person
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 10a (H.261): Turntable speed 1
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 10b (H.263): Turntable speed 1
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 10c (H.261): Turntable speed 2
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___
JRK ___ ___ ___

Test 10d (H.263): Turntable speed 2
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___
BLR ___ ___ ___
CLR ___ ___ ___

JRK ___ ___ ___

Test 10e (H.261):

Turntable speed 3

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 10f (H.263): Turntable speed 3

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 10g (H.261): Turntable speed 4

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 10h (H.263): Turntable speed 4

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 11a (H.261): Football sequence

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 11b (H.263): Football sequence

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK ___ ___ ___

BLR ___ ___ ___

CLR ___ ___ ___

JRK ___ ___ ___

Test 12a (H.261): Zoom in and zoom out of "A to Z" map

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____

BLR _____

CLR _____

JRK _____

Test 12b (H.263): Zoom in and zoom out of "A to Z" map

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____

BLR _____

CLR _____

JRK _____

Test 13a (H.261): Text legibility (% of screen height) at viewing distance approx. 5x screen diagonal

Legibility 128 kbit/s 384 kbit/s "30 fps"

20 pt (3.5%) _____

16 pt (3%) _____

14 pt (2.5%) _____

12 pt (2.3%) _____

Test 13b (H.263): Text legibility (% of screen height) at viewing distance approx. 5x screen diagonal Legibility 128 kbit/s 384 kbit/s "30 fps"

20 pt (3.5%) _____

16 pt (3%) _____

14 pt (2.5%) _____

12 pt (2.3%) _____

Test 14a (H.261): Video with several vision cuts

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____

BLR _____

CLR _____

OP _____

SCR _____

Test 14b (H.263): Video with several vision cuts

Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

BLK _____

BLR _____

CLR _____

OP _____

SCR ____

Test 15a (H.261): Man teaching with flip chart
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

LS ____

BLK ____

BLR ____

CLR ____

JRK ____

Test 15b (H.263): Man teaching with flip chart
Subjective Impairments 128 kbit/s 384 kbit/s "30 fps"

LS ____

BLK ____

BLR ____

CLR ____

JRK ____

Test 16: Playback from a domestic VHS videotape player Is picture stable? Yes/No

D: AUDIO TESTS (ITU-T standards only)

Test 1: Frequency response (-3 dB)
(Insert -10dB signal at local site, measure at remote site)

G.711 G.722 G.728
____ kHz ____ kHz ____ kHz

Test 2: Headroom
(Insert increasing amplitude 1,000 signal at local site, monitor for overload distortion at remote site)

Overload occurs at: ____ dBm

Test 3: Audio Level
(Insert 0 dBm white noise at local site, monitor received level at remote site)

Remote site signal measures: ____ dBm

Test 4: Echo cancellation

Setup (Describe any procedure required)

Lecture Theatre Room

Audio levels adequate? (y/n) ___ ___

Audio quality acceptable? (y/n) ___ ___

Echo cancellation acceptable? (y/n) ___ ___

Double talk (subjective assesment) ___ ___

Comments:

E: DATA TESTS

F: CONNECTIVITY

Connectivity between Like Machines

Connectivity with Other Machines (models listed with comments)

Connectivity with JVCS Facilities

Procedure for making a call

G: SUMMARY
