

## Appendix - Audio, Video tests and Interoperability

### D. VIDEO TESTS SUMMARY

Although the video quality experienced between ClassHD systems at 720p @ 30fps was good, the limitations of the fixed-focus digital zoom camera is a restriction on the overall system performance. Overall the images appeared slightly soft when compared to optical zoom variable-focus cameras which were further softened when the digital zoom was applied. The ability to transmit two simultaneous channels of 720p resolution, high frame rate images on both the main video and presentation channels, is a welcome provision. For connections at 4Mbit/s where the bandwidth was split between the main and presentation channels, movie trailer material that normally challenges conference links was transmitted with few artefacts.

At lower connection speeds on standard VC material, the video quality was good.

### E. AUDIO TESTS SUMMARY

#### Setup

The echo canceller is fully automatic in operation. The quality of echo cancellation and doubletalk from the system was very good.

F. INTEROPERABILITY			
There were no problems connecting between the AVer ClassHD units.		Room	
<b>Time to Connect with encryption On</b> Audio levels adequate? (Yes/no) All speeds ----- 5 seconds			Yes
<b>Connectivity with Other Machines</b> (models listed with comments) Audio quality acceptable? (Yes/no)			Yes
Successful connections were made in each direction with the following CODECs, where the systems supported H.239 presentation, Echo cancellation acceptable? (Yes/no) was also shared.			Yes
Quality of double talk			Very Good <b>Resolution</b>
<b>CODEC</b>	<b>Call Bandwidth</b>	<b>Resolution Transmitted by</b> <b>The AVer ClassHD</b>	<b>Received by</b> <b>The AVer ClassHD</b>

<p>Polycom HDX 9002</p> <p>S/W 2.6.0</p>	<p>2 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 25</p>
<p>Tandberg 6000 MXP*</p> <p>S/W F9.0 PAL</p>	<p>4 Mbit/s</p>	<p>848 x 480 @ 18</p>	<p>w720p @ 30</p>
<p>Cisco SX20</p> <p>S/W TC5.1.4</p>	<p>4 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 30</p>
<p>Cisco C40</p> <p>S/W TC5.1.1 (No Premium Res)</p>	<p>4 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 30</p>
<p>Cisco C60 (Prem Res)</p> <p>S/W TC4.2.1</p>	<p>4 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 30</p>
<p>Cisco C90 (Prem Res)</p> <p>S/W TC4.2.1</p>	<p>4 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 30</p>
<p>Lifesize Express 220</p> <p>S/W 4.9.00</p>	<p>4 Mbit/s</p>	<p>w720p @ 30</p>	<p>w720p @ 30</p>

Lifesize Team S/W 4.7.19	4 Mbit/s	w720p @ 30	w720p @ 30
Lifesize Room 200 S/W 4.7.10	4 Mbit/s	w720p @ 30	w720p @ 30

## Connectivity with the Janet Videoconferencing Service

### H.323

The AVer ClassHD connected successfully to the JVCS Codian MCU at high definition using H.264 video, 720p resolution and G722 audio with video and audio in both directions.

H.239 also interoperated correctly. The received audio level was measured as peaking to -4dBm.

### Procedure for making a call

1. Press the "Call" button on the remote control
2. Input IP address and select connection speed
3. Press the "Call" button

Alternatively, use the local contacts directory available from the user interface Phone Book or the Recent Calls lists.

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