Aethra Vega X7 was tested in the VCC from July 09-27.2007. Our testing system carried out video conferences in the local area network (LAN) with a maximum speed of 1920kbps. For the H.239 test a different testing system with a bandwidth of 4 Mbps in the LAN was provided.

**SW-Version**
The tests were carried out with software version 11.01.0009.

**Device Class**
The compact system Aethra Vega X7 is a HD-compatible group system with a video resolution of 720p (1280x720 pixels) and a frames per second-rate of 30 fps from 168 kbps on.

**Scope of Delivery**
The scope of delivery contains the VEGA X7 Box (measurements: BxHxT in cm: 46x23x6), an external HD-camera (resolution: 1280x720 pixels), remote control and various connection cables for audio (Cinch), Video (DVI), camera and power.

**Bandwidths**
The type series Aethra Vega X7 facilitates video conferences in the LAN with a speed of up to 4 Mbps and supports ISDN to a speed of 512 kbps.

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**INSTALLATION**

Connecting the necessary components is quickly done. The procedure of activating the entire functional range was already performed. In other respects, the single components Dual Video as also XGA for data presentation and the firmware have to be cleared by using separate licence keys. The licence keys are available on the website of Aethra. The clearing of the components for the end customer is performed by the distributing company, as Mr Nowak (Aethra) informed us.

For an installation check the device offers a lot of self-tests, even a simulation of the other side is possible.
Operation

The surface and the operation guide of the Aethra Vega X7 (for calling; audio- and video-calls) feature the same structure as the Aethra Vega X3, which was tested in the beginning of the year. The remote control resembles the predecessor model as well.

Audio/Video

The audio quality of the model Aethra Vega X7 was evaluated as very well almost in all tested connections. The video quality between the tested terminal equipment was continuously well or very well. The only exception is the connection with the Tandberg 6000 (software version F6.0 PAL). The moving image is beyond recognition in case H.264 is used. In case a connection with H.263 is enforced, the CIF-picture can be reviewed as good. The video sequence is jolted in several circumstances when connecting the Aethra Vega X7 with other testing systems.

H.264

Using the standard H.264 up to the maximum call-bandwidth of the Aethra Vega X7 (1920 kbps) was possible with all connections, excluding Emblaze VCON vPoint 7.1. The usage was negotiated from the first link connection on. Excluding Tandberg 6000, all connections turned out satisfactory concerning quality. With Emblaze VCON vPoint 7.1 it was possible to put the system into practice and reach the maximum values of vPoint 7.1 (512 kbps H.264).

H.239

Aethra Vega X7 transmits H.239 with XGA resolution. This leads to the emergence of a problem: the VC-device cannot display the presentation, even not if it is sent from a laptop in XGA-format. Only two-thirds of the picture information are transmitted, the rest of the picture is displayed in black. In case the laptop transmits SXGA (1280x1024), the H.239 data stream is displayed and sent accurately by Aethra Vega X7. Data presentations with H.239 worked well or very well with all tested devices in case the SXGA-format is used. Limitations were detected when pixel errors or format transmission errors emerged, as well as a wrong aspect ratio or cut-off picture borders. Several times the pictures turned out to be hazy.

T.120

T.120 protocol is only offered in the ISDN area and demands an additional laptop with NetMeeting software.

Camera Remote Control.

If the preconditions were met (support of H.281 protocol), camera remote control always worked.

MCU

During the test with the MCU from RADVision, the reached audio quality was very good, while the video quality was good. During the test with the Codian MCU 4520 the audio and video quality were reviewed as very good.

Gatekeepers

Cooperation with the gatekeepers GNU-GK 2.0.7 and CISCO MCM worked without problems.

Miscellaneous

For the device Aethra Vega X7, an AES-encoding for ISDN-connections (H.320) is offered, but not for IP-connections. In contrast to most other providers, the company Aethra has documented the TCS4-separator and offers the user to choose between either the "#" or the "*"-symbol. During the permanent running of the device it was noticed that both the camera as well as the codec produce a great range of heat.
The video conference-system Aethra Vega X7 is especially convincing in its good audio- and good or even very good video qualities. Data presentations are realized in good or even very good quality, in case the information is sent from a laptop in SXGA. Because of its good price-performance-ratio it can be recommended for use.

**Documentation**
Manufacturer: Aethra  
Distributor: Visionkom Berlin  

<table>
<thead>
<tr>
<th>Supported General Standards</th>
<th>H.323, H.320, SIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Codings</td>
<td>G.711, G.722, G.722.1, G.722.1 Annex C (Siren14), G.728, MPEG4 AAC-LD</td>
</tr>
<tr>
<td>Video Compression</td>
<td>H.261, H.263++, H.264</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>IP up to 4 Mbps, ISDN up to 512 kbps</td>
</tr>
</tbody>
</table>

We thank Mr Stefan Nowak Aethra for providing the test.