GENERAL INFORMATION

PERIOD

November / December 2015

SW VERSION

softwareversion 08.03.02.0534 V 8_3_2

DEVICE CLASS

The Scopia XT 7100 is the most efficient Settop-System from Avaya with integrated MCU applicable for up to nine participants. The intern MCU has not been available during the test.

SCOPE OF DELIVERY

The standard equipment of Scopia XT 7100 includes the Codec, camera, microphone, remote control and all necessary cables.

BANDWIDTHS

The System allows point to point conferences based on the SIP and H.323 protocol and is able to handle calls up to a bandwidth of 3072 kbps.
INSTALLATION

The Scopia XT 7100 can quickly be connected. The system is ready to work after a few necessary adjustments. The menu's default values are chosen reasonable, and offer a lot of opportunities for modification.

Two connection ports (LAN and GLAN) are available for separation of private and public networks. As rules of an eventually existing Gatekeeper are related to both systems, adaption of the network might be necessary.

TEST

START / POWER CONSUMPTION

After switching on the power, the device needs approx. 85 seconds to be ready for operation. Switching from standby mode to operating mode needs 9 seconds. The typical annual power consumption is around 172 kWh.

OPERATION

The remote control is clearly arranged into five areas. The most important and most frequently used buttons are arranged around the centre. A accidentally maloperation should be impossible due the delimitation. In combination with the well designed Software user interface, a fast and unproblematic work experience can be guaranteed.

AUDIO/VIDEO

The audio quality proved to perform successfully and was rated as 'Very Good'. During individual test connections the audio was coded with AAC-LD, G.722.1 Annex C. It has been made use of G.719 when a connection has been established to Avaya or Polycom equipment.

The video quality was throughout very good. The video was compressed by using exclusively the video codec H.264 with 720p or 1080p. When connected with related devices H.265 SVC with 1080p@60fps has been used.

DATA PRESENTATION

The data presentation can be evaluated either on focus or movement.

XT 7100 sends data presentations H.264 with 30 fps. In case of an H.239-connection to Polycom devices 5 fps have been transmitted.

With few exceptions the format 720p with a bandwidth of ca. 2000 kbps has been used. One data presentation sent to Polycom HDX 8004 was sent with 1024 x 768 and to Cisco EX 90 with 1680 x 1050 pixel.

Receiving Datapresentations is depending very much on the remote stations technical circumstances. Older Transmitters (YOM 2010 and earlier) with weaker performance can only handle low framerates, although the XT7100 could receive more. Never the less, the transmissions applicability is mostly given. However playback of longer high resolution videos to XT 7100 should be avoided.
In case the connection partner uses a desktop system, an state of the art computer should be emphasized. Older devices can cause interruptions of the transmission. Dataconnection to iPad works in both ways without problems. It is announced that version 8.5 comes with realisation of H.265.

**CAMERA REMOTE CONTROL**

During the tests, the camera remote control operated always with corresponding technical prerequisites of the remote station.

**SERVICE DFN VIDEOCONFERENCE**

The registration and cooperation with the Gatekeeper GNU-GK 3.8 works stabile and without mistakes. The collaboration with the DFN-MCU works with audio and video up to the particular maximum Bandwidth flawless and with very good quality. Datapresentation by H.239 is performed with H.264 in the format 720p@30fps with ca. 2000 kbps in very good Quality.

**SIP- AND URI-DIALING**

Within the DFNVideoConference Service SIP-calls with syntax "9791@mcu.vc.dfn.de" are possible. By BFCP a parallel datapresentation kann be executed. Calls with URI-Dialing (H.323 Annex O) are possible with syntax: "9791@mcu.vc.dfn.de" oder "194.95.240.2##9791". No registration to the gatekeeper is to be made.

**ENCRYPTION**

Through establishing an connection with necessary encryption to the systems Polycom HDX 8004, Group 500, all softwareversions of RealPresence and LifeSize Team 220, problems are caused. Either the connection is not been established or no video is sent by XT 7100. A proper audiovisual communication can only be set in place by turning off the encryption.

**OTHER**

According to the Datasheet, the system ist fully HD-capable with 60 fps and two channels. These 60 fps are only realised on NTSC, with in europe conventional used PAL the videofrequenz adjustment "auto" enables at most 50 fps. If 60 fps are to be used, adjustments are to be set for the appropriate value.

The system comes with two seperate Networkconnections, which are meant to be used for intern and extern use. Due to the possible seperate configuration the datasecurity is increased. A AES-Encryption with 128 bit is set for standard.

**CONCLUSION**

The system XT 7100 is an high-performance system with convincing quality of video and audio. The user is provided with useful configurationsettings, that are made easy to be found by the graphical user interface. Together with modern devices the system presents its best performance.
We are grateful for the provided test equipment, by Avaya.
Manufacturer: Avaya

<table>
<thead>
<tr>
<th>Supported gen. standards</th>
<th>H.323, SIP, H.239, BFCP</th>
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<tbody>
<tr>
<td>Videocompression</td>
<td>H.263, H.263+, H.263++, H.264, H.264 High Profile, H.265/HEVC</td>
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<tr>
<td>Bandwidth</td>
<td>IP, SIP to 6 Mbps; total bandwidth MCU: 12 Mbps</td>
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