AVER PTC500

GENERAL

Performance parameter

- maximum resolution: 1920 x 1080 (video) up to 60 fps
- autofocus with 30 x optical and 12 x digital zoom
- PTZ-camera with:
  - 2.64 - 72.9 degree field of view (wide angle and telephoto)
  - tilt function from -30 degree (below) up to +90 degree (above)
  - swivel function up to 160 degree in both directions (left,right)
  - up to 160 degree per second are possible in the movement
- Integrated panorama camera in the base:
  - maximum resolution: 1920 x 1080 (video) up to 60 fps
  - 120 degree visual field
- automatic tracking of persons in various modes

Connections

- video output: 1x HDMI Out, 2x 3G-SDI Out
- control: 1x RJ45, 1x RS232
- audio input: 1x Audio Line In
- external power supply
- Kensington-Lock

System requirements

- dedicated videocodec

Installation

- connection to videocodec with HDMI-cable or 3G-SDI cable
- network configuration via remote control

TEST

Test period: September 2017

Contrast and optical resolution

- vertical: 600
- horizontal: 550
- diagonal: max. 600
- no aliasing, slight barrel distortion in wide angle and a slight pincushion distortions in the telephoto
- over all: good image
Fig. 1: Test patterns of contrast and resolution (f.l.t.r.) - camera image without zoom, camera image with maximum zoom, original image

**Colour rendering**

- colour rendering: very good
- no colour-wedge bluring

Fig. 2: Test patterns of colour rendering - camera image (f.l.t.r.) - camera image without zoom, camera image with maximum zoom, original image

**Scenarios**

Fig. 3: Maximum wide angle (videoconference)

Fig. 4: Normal zoom (video conference room)
Weitere Bilder und Testaufnahmen

Automatic tracking of persons

- Possible in two different modes (teacher / student)
- Automatic tracking can be deactivated
- Teacher mode:
  - Moving person in the tracking area will be detected and tracked
  - Further persons are not disturbing the tracking
  - Tracking works reliable with pan, tilt and zoom
  - After a certain time in standstill position (absolutely no movement or a person leaves the area of the panorama camera), the camera takes place in preset 1 and waits for a moving person in the tracked area
- Student mode:
  - Laid out for sitting people (rows of tables)
  - Not a real tracking, but a one-time focus / zoom to a speaking, moving person
  - Direct switching from panorama to close up view of a relevant person possible (panoramic mode)
  - Not yet as reliable/precise as teacher mode
Others

- Numerous camera settings are possible (inter alia, white balance, contrast, saturation, vignetting correction, speed of the camera movement, restriction of the digital zoom, shutter priority, aperture priority, manual choice of exposure)
- Compensation of lightness can be deactivated
- Camera profile can be saved
- Usability is given by the web interface
- 256 positions are adjustable as Preset, thereof 10 via remote control
- Related IPad App AcuControl to control the camera is incompatible with the IPad 4
- Port 5353 UDP (multicast DNS) should be blocked from outside to avoid reflected DoS attacks

CONCLUSION

The AVer PTC500 delivers excellent images at a very good PTZ performance. It is mainly provided for seminar rooms and lecture halls. The integrated panorama camera opens up further using scenarios. Numerous adjustment possibilities and 3 video outputs provide extensive adaptation options. The tracking at the teacher mode is very reliable, at the student mode further improvements are still possible.