



<sup>\*</sup> Special features are marked in blue

#### **Product Specifications:**

- 1. Embedded with Linux operating system.
- 2. Equipped with ARM processor.
- 3. SDK available for software integration and creating customized applications.
- 4. Total 120 Mbps network throughput.
- 5. Support multiple streams of AVer IP camera.
- 6. 16 audio inputs (via IP camera), 1 microphone input, 1 audio output.
- 7. 16 sensor inputs and 4 relay outputs.
- 8. Supports up to  $1920 \times 1080$  (Full HD) output resolution.
- 9. H.264 compression technology.
- 10. Supports 3 types of video outputs: VGA  $\times$  1 (1920x1080), HDMI  $\times$  1(1920x1080), TV out  $\times$  1(supports multi-quad output).
- 11. Supports up to 5 megapixels for one channel and a total of 32 megapixels for all 3<sup>rd</sup> party IP camera channels. No megapixels limitation for AVer IP cameras.
- 12. Gigabit LAN port  $(10/100/1000Base-T) \times 2$ , USB  $\times 3$ , e-SATA  $\times 1$ , RS-485  $\times 1$ , RS-232  $\times 1$ .
- 13. HDD support: 4 externally removable HDD trays and 1 external e-SATA or RAID HDD.
- 14. Internal RAID support (Level 0, 1)
- 15. Support up to 28TB storage space. (3TB for each hard drive internally and 16TB for external storage externally.)

### **Operating Interface:**

- 1. Supports to show system temperature and network bandwidth usage information.
- 2. Intuitive system setup wizard.
- 3. Instead of configuring in the system setting section, users can edit camera name / start or stop recording by schedule / close monitoring screen.
- 4. Provides 8 E-maps, which support picture import in JPG file formats, and show the locations





- of cameras, sensors and relays.
- 5. PTZ functions: supports 16 preset points and 60 seconds dwell time for each PTZ. PTZ function also includes direction, focus, zoom, speed, preset, group, auto pan.
- 6. POS information setting supports inserting text from the POS machine on the displayed image and user is able to find related POS transaction data or playback the footage with POS text overlay on the image.
- 7. Supports to playback the recorded footage by time segment. (2hours, 1hour, 30 minutes, 10 minutes, 5 minutes.
- 8. Provides a virtual keyboard for inputting information such as user accounts or camera names without connecting a physical keyboard.
- 9. Supports to enable / disable the audio function in camera setting.
- 10. Selectable split modes: 1 / 4 / 8 / 9 / 13 / 16 split.
- 11. Displays system date / time information in main system user interface.
- 12. Displays cameras using "tree grouping," user can find the camera and make the setting easily by selecting the camera from tree group.
- 13. Able to connect PTZ IP camera.
- 14. Alarm shows local I/O (16 IN / 4 OUT) and IP Cam I/O information, and supports viewing alarm event logs and searching the alarm logs by date / time duration for each channel.
- 15. Users can adjust the view (full screen, auto scan or split screen) during real-time monitoring.
- 16. Users can search event logs by date / event / operation / system / network / keyword input and export them as a .csv file.
- 17. Users can browse POS event logs by time and to display POS text during real-time monitoring.
- 18. Users can take real-time snapshots and backup files using a flash drive device (i.e., USB flash drive or external hard drive with its own power adaptor).

### Video Display:

- 1. Supports to search the alarm logs by date/time / camera channels.
- 2. Video segmentations with customizable "A and B" settings to repeat playing the specified time periods so that users can further confirm the details in those images.
- 3. Supports visual search by time duration (2hours, 1hour, 30 minutes, 10 minutes, 5 minutes) in playback mode.
- 4. Full playback capabilities: play / fast-forward / rewind with speeds of 1/8, 1/4, 1/2,  $\times 1$ ,  $\times 2$ ,  $\times 4$ ,  $\times 8$ ,  $\times 16$ ,  $\times 32$  x 64 times.
- 5. Supports searching via the calendar and enables users to drag the jog shuttle to locate the playback time.
- 6. Users can set a bookmark and easily save links to particular locations of recorded data and play them directly from the saved links.
- 7. Users can export the recorded video in multiple ways such as snapshot / backup.
- 8. POS string search function can show the complete receipt information and user can export





the data.

### **System Settings:**

- 1. Shows the system HDD partition names, free space, HDD space and status information.
- 2. Embedded HDD capacity calculator program to determine the remaining recordable time for the existing HDD without needing to calculate using other programs.
- 3. Supports configurable settings from 1 to 365 days as it relates to keeping recorded data.
- 4. Supports configurable settings from 1 to 365 days as it relates to storing event logs and alarm logs.
- 5. Supports importing, exporting and backing up the system configuration files to prevent any original settings being lost after changes to the data.
- 6. Buzzer automatically notifies users when video is lost.
- 7. Configurable playback mode options available for user such as instant playback, playback from last time, or select date and time to playback.

#### **Camera Settings:**

- 1. Supports displaying camera names of up to 24 characters.
- 2. Adjustable hue / brightness / contrast / saturation / sharpness settings.
- 3. Supports over 60 major brands of IP cameras and all AVer IP camera series.
- 4. Support ONVIF protocol (2.0 above).
- 5. The system can archive the data from IP cameras and store it in customized sizes.
- 6. Users can directly connect to the AVer IP cameras through the system to configure more detailed camera settings such as image contrast, brightness, hue, saturation, sharpness settings and more advanced settings like color mode, WDR, Denoise, IR cut filter, image orientation.
- 7. Supports IP camera plug & play function for easy connection between E5016 and AVer IP
- 8. Supports Active IP function for easy modifying the IP address of AVer IP camera.
- 9. Supports to configure the streaming settings such as AVer's ROI (region of interest), smart stream (up to 5 regions), privacy mask (up to 3 regions), motion detection (up to 3 regions with sensitivity adjustment) and PTZ network settings adjustment for each channel.
- 10. Supports to configure the AVer "MFZ" settings such as "Auto focus" and "Zoom in/out" function.
- 11. Supports to set the schedule recording for each IP camera channels. The recording mode contains "continuous recording", "smart recording", "Event (motion) recording", "no recording".
- 12. Support AE (auto exposure) and AWB (auto white balance) control.





### **Recording Settings:**

- 1. Provides 4 selectable recording modes: 24-hour recording, motion recording, smart recording and no recording.
- 2. Smart recording features full frame recording when there is motion scene detected. If there is no motion scene detected, then system records key frame only.
- 3. A table-based configuration of the recording frame rates lists the channels for users to select the desired resolutions and frame rates for each individual channel. It is able to automatically calculate the remaining megapixel resolution.

### **Network Settings:**

- 1. Supports DDNS server.
- 2. Allows customer to set total bandwidth limitation for all IP camera channels.
- 3. Supports bidirectional network communications.
- 4. Supports to sync the local system time to the NTP server.
- 5. Supports mobile viewing such as iPhone / iPad / Android phone / Android Pad.
- 6. Users can perform remote management through CM5000 (Central management system.)

#### **Audio Settings:**

1. Supports two way audio feature. (For AVer IP camera only.)

#### **Schedule Settings:**

- 1. Supports setting schedules using the calendar, which allows for multiple time period or single time period scheduling.
- 2. Schedule entries include: record recording and Alarm condition.

## **Backup Settings:**

- 1. Supports to backup files to external storage devices such as external hard drives or USB flash drives.
- 2. Once you complete the backup selections, the system will automatically calculate the required capacity for external storage device.
- 3. Provides an easy of use backup interface where users can directly select the desired cameras and backup the files during a specific period of time.
- 4. Supports to include the player for user to easy playback the backup files.





#### **Sensor and Relay Settings:**

1. Embedded sensor/relay test function for 16 channels of alarm inputs and 4 channels of alarm outputs, which enables the resume time and time intervals of continuous triggers (from 1-300 seconds).

### **Alarm Settings:**

- 1. Includes the following trigger conditions: motion detection (1-300 seconds delay), video loss (0-300 seconds delay).
- 2. Reboot, abnormal reboot and hard disk failed which can all be set as trigger conditions as well.
- 3. Alarm triggers have multiple actions in the following functions: E-map, enlarge camera view, trigger relay output (can set the retrieve time), play sound effect play, Send email (with pictures attached), file transmission via FTP (upload video clip), PTZ presets (when triggered, the speed dome cameras will return to their default points, it supports preset cruises of 1-4, 5-8, 9-12, 13-16).
- 4. 32 different groups of settable trigger actions.

#### **User Settings:**

- 1. Two levels of user access (Administrator and Operator).
- 2. Operator access includes the following management functions: control permissions, login time limitations, camera viewing permissions, and account expiration. Control permissions: system settings, camera settings, alarm settings, playback, E-map, power off. Permanent or customized time (in minutes). Camera viewing permissions: select all channels, or one or more of the1-16 channels. Account expiration: customized start date and end date. User can also define the login ID / password, account description for each operator (user) account.

