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Specification for Approval

Model: EHA200



Customer	
Product	Network Video Adapter
Model	EHA200
Version	1.0
Issued date	2021.07.01

Prepared by	Checked by	Approved by
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1. Table of specification

Interface with local devices	
Video input	HDMI
Resolution	108060p, 1280x720p-60p, 1280x1024, 1024x768
USB	Compatible with standard PC mouse and keyboard
Video	
System hardware	Ambarella 32 bit Embedded Linux SOC, 256MByte SDRAM, 128GByte NAND flash
Video compression	H.265, H.264, MJPEG
Stream	Triple stream
Resolution	- Primary stream: 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240 - Secondary stream 2: 704x480, 640x480, 320x240 - Tertiary stream: 320x240
Frame rate	Max. 60fps @ 2MP
Video setting	VBR/ CBR/ AVBR/ ACBR, Target bitrate/ image quality, GOP
Audio	
Audio streaming	2-way transmission (full-duplex)
Audio encoding	G.711 u-LAW / G.711 A-LAW / SPEEX / AAC-LC
Function	Audio detection
Network	
Protocol	HTTP, RTP/RTSP (Unicast, Multicast), TCP/IP (v4, v6), UDP, FTP, Telnet, HTTPS, RARP, SNMP, DHCP, NTP, SMTP client, UPnP, ZeroConf, vv...
DDNS	www.ipcctvdns.com
VMS/ NVR	ONVIF Profile S, FlexWATCH SDK
User	Max. 16 user concurrently
User configuration	- Full access - Live view and playback only - Selective access (Stream, Playback, DO, PTZ, Audio)
Security	- Basic Authentication/ Encrypted Authentication - IP filtering - HTTPs - Management White List - FTP/Telnet Disable/ Enable

Event & Alarm	
Motion detection	Settable 4 zones with sensitivity
General	
Connectors & Peripherals	<ul style="list-style-type: none"> - Network: RJ45 10/100/1000Mbps - Power input: DC 12V - Audio: Mic in + Line out - USB: Type B - Alarm: 1 DO - Serial: RS232
Power	DC 12V-1A
Dimension	0 ~50°C, 10 ~ 80% RH
Approval	107(W) x87(D) x26(H) mm
Operating environment	KCC, FCC, CE, RoHS
Client	Microsoft Windows 10 (ActiveX supported) Internet Explorer, CMS, iOS/ Android mobile app
Bundle software	IP Installer, Smart Multi Viewer and Player (CMS), SmartNVR-SV-9 (VMS 9 channel)

2. Technical notes and tips

Device Independent SDK

All FlexWATCH products use the same user interface, the same SDK. If one device is integrated to partner products, it means that all FlexWATCH products are already integrated. It alleviates the development and customization burden. Even though hardware platform is changed, the SDK is forward and backward compatible

Modular Architecture

FlexWATCH system including IP cameras, NVR even mobile application uses the same software platform which is called “Modular Architecture”. FlexWATCH products are composed of several software modules comprised of RX, TX, REC(recording), VMFD(Proprietary middle engine), Display modules. By the combination of each module, it becomes different products like IP camera and NVR. The modular architecture enhances the operating performance such as the lowest streaming performance. It is used to all models whatever operation system and hardware CPU are used.

Unified User Interface

Based on the Modular Architecture, all FlexWATCH products provide the same user interface regardless of product models. It provides common user interface to all devices such as IP camera and NVR. By glance, it is hard to distinguish what OS and SOC are used for the products. The same and unified user interface helps customer reduce the technical support burden.

Perfect Compatibility

All FlexWATCH products supports forward and backward compatibility such as newly released models and the oldest model from more than 10 years ago.

Backdoor Issue free

Majority of FlexWATCH Camera uses backdoor issue free USA Ambarella platform.

H.265 codec

H.265 codec gives more efficient file size than previous H.264 to save storage and bandwidth and to have interoperability with legacy systems.

Integration Services via Email, FTP

Buffered and non-buffered email, ftp services are supported. According to event and schedule, pre-post alarm buffering is supported. There are various types of CGI command to active these services. For the details, please contact technical support team.

IP filtering

The IP filtering enables you to control what IP traffic you want to allow into and out of your IP camera. Use IP filtering to help protect your IP camera by filtering the access from the pre-configured IP address set.

Latency

Latency is a request and response time between IP cameras and client devices or servers remotely connected. FlexWATCH IP camera shows the lowest Latency time (25%~40% better) against popular other IP cameras from various brands.

Management white list

A whitelist is a list of items that are granted the access to a certain system or protocol. When a white list is used, all entities are denied the access, except those included in the whitelist. Network administrator may configure a firewall with a whitelist that only allows specific IP addresses to access the IP camera or NVRs.

Optimized Multiple Profile Streaming

Up to 4 streams, many parameters can be set differently such as resolution, video encoding method and frame rate for different purposes

Region of Interest (ROI)

Some cameras offer the ability to transmit only a partial region of a sensor, which offers the option of concentrating on image areas containing the information relevant to image processing. Reducing the size of the image transmitted by the camera reduces the image size and the bandwidth required for each image. In configuring an ROI, the read out window is reduced to the area relevant for analysis, increasing the image frequency significantly.

Text OSD

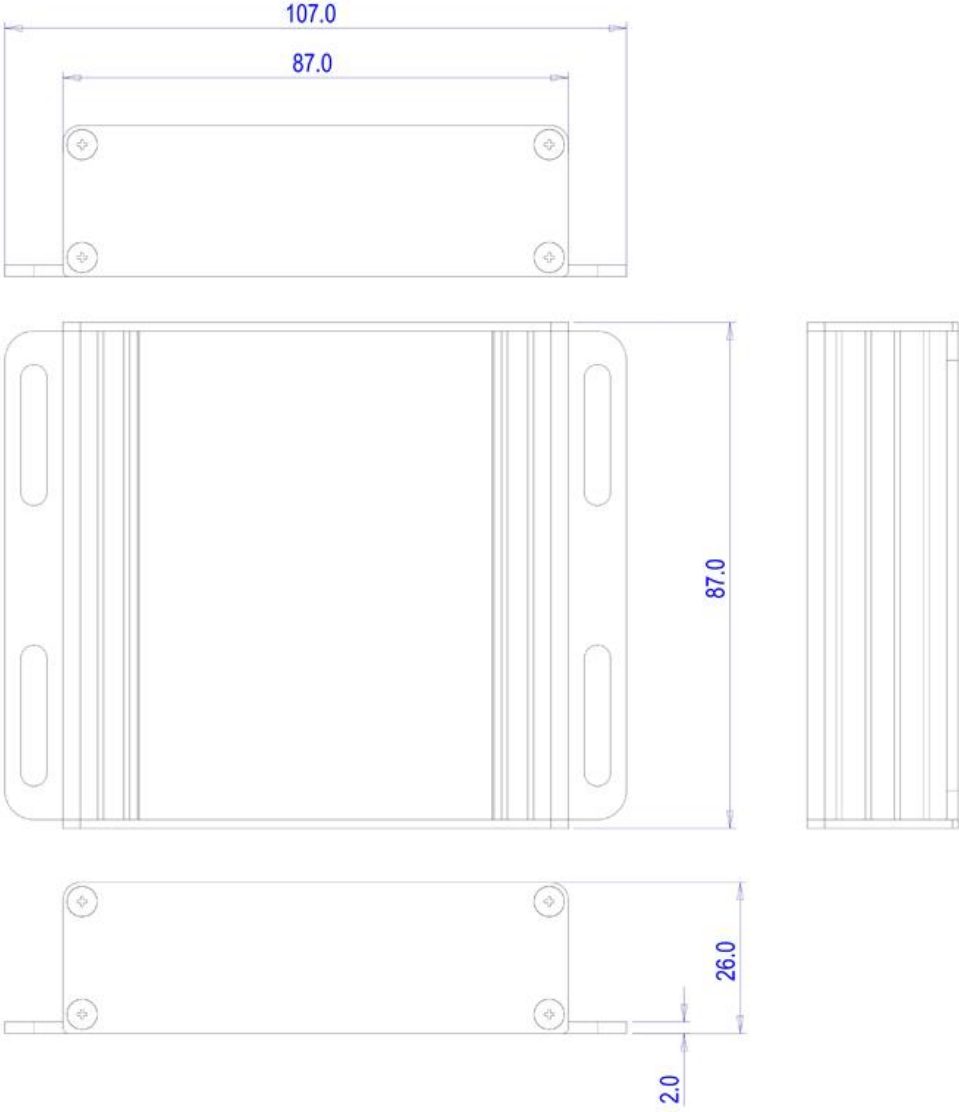
User can set 9 set of text strings to display direction of the camera or location of the camera. Each string can be extended up to 24 alphanumeric characters. In case of PTZ, user can set 8 different directions like to Las Vegas or -> Los Angeles by PAN angle. When PTZ moves to the pre-set PAN angle, it automatically displays the text string set on the PAN angle.

Unified Communication (Single HTTP port for live/ playback/ control) FlexWATCH camera uses only TCP port 80 of HTTP. All communication ports are integrated to single port. This is based on proprietary streaming protocol which helps reducing installation burden. Most of other vendors IP camera uses different TCP/UDP ports for video/audio/data communication. FlexWATCH camera supports other industrial standard protocols as well.

Zero-configuration networking (zeroconf)

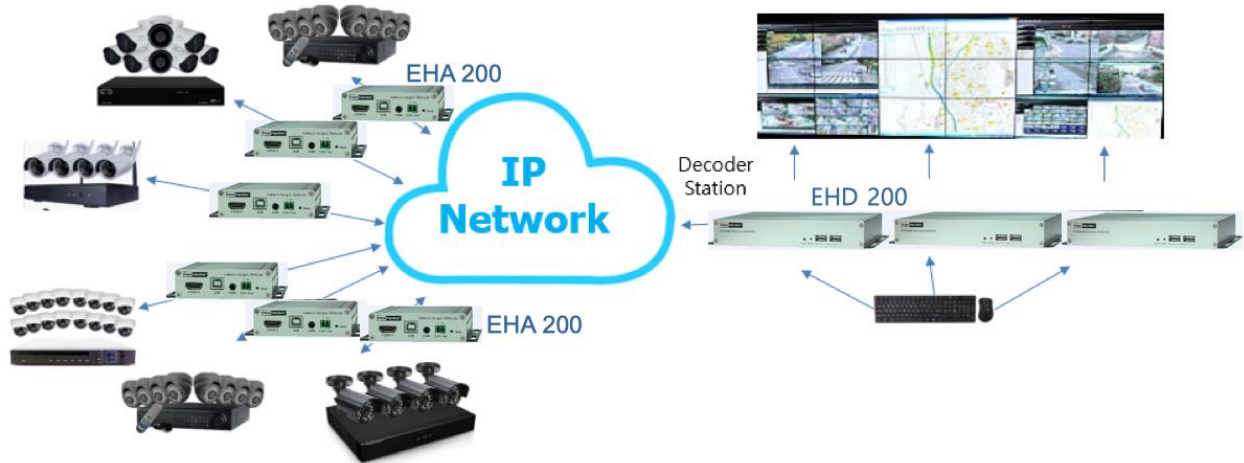
is a set of technologies that automatically creates a usable IP camera network based on the Internet Protocol Suite (TCP/ IP) when IP cameras are interconnected with other device or server. It does not require manual operator intervention or special configuration servers. Without zeroconf, a network administrator must set up network services, such as Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS), or configure each computer's network settings manually.

3. Appearance and dimensions

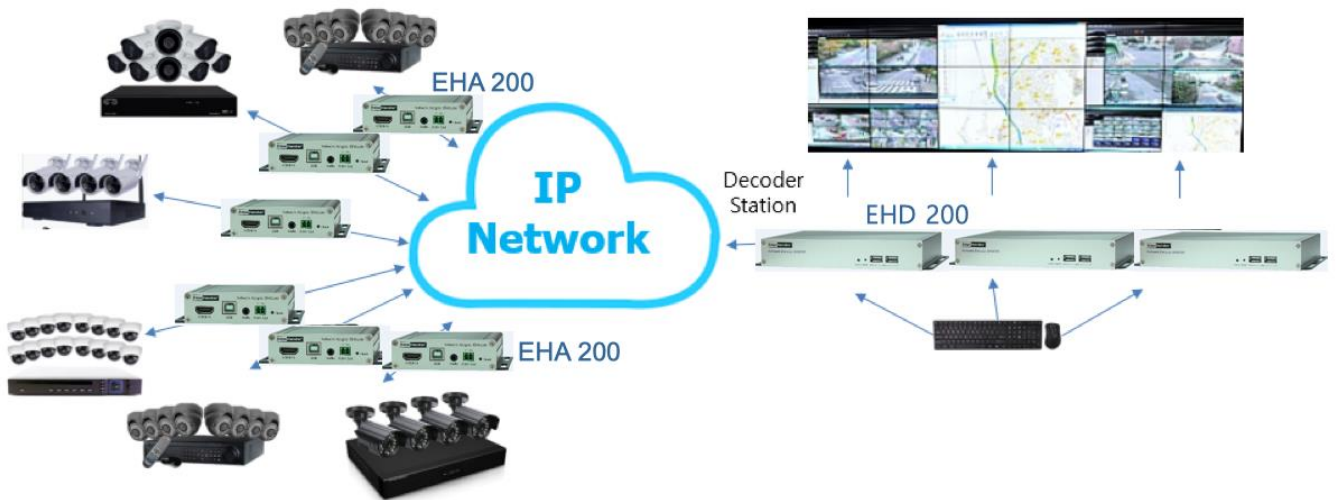


4. Examples of applications

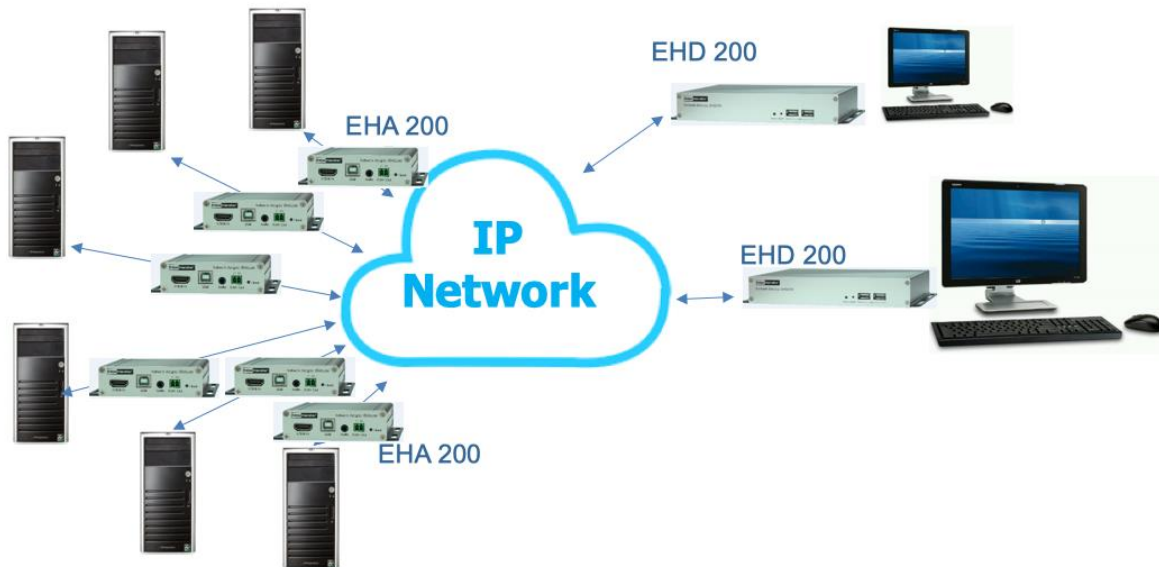
* 3rd party DVR/ NVR management



* Video wall application



*** Remote monitoring of server**



*** Remote management of self-service system**

- Bios-level access and Remote Power Cycling
- Remote file sharing, booting, etc.
- PC-based computing devices ultimately require their own troubleshooting and maintenance

*** Digital signage application**

- Duplicating a single video source to multiple displays
- Routing multiple sources to many displays