



2017

# Education Product Catalog

FLOATING  
**POINT**

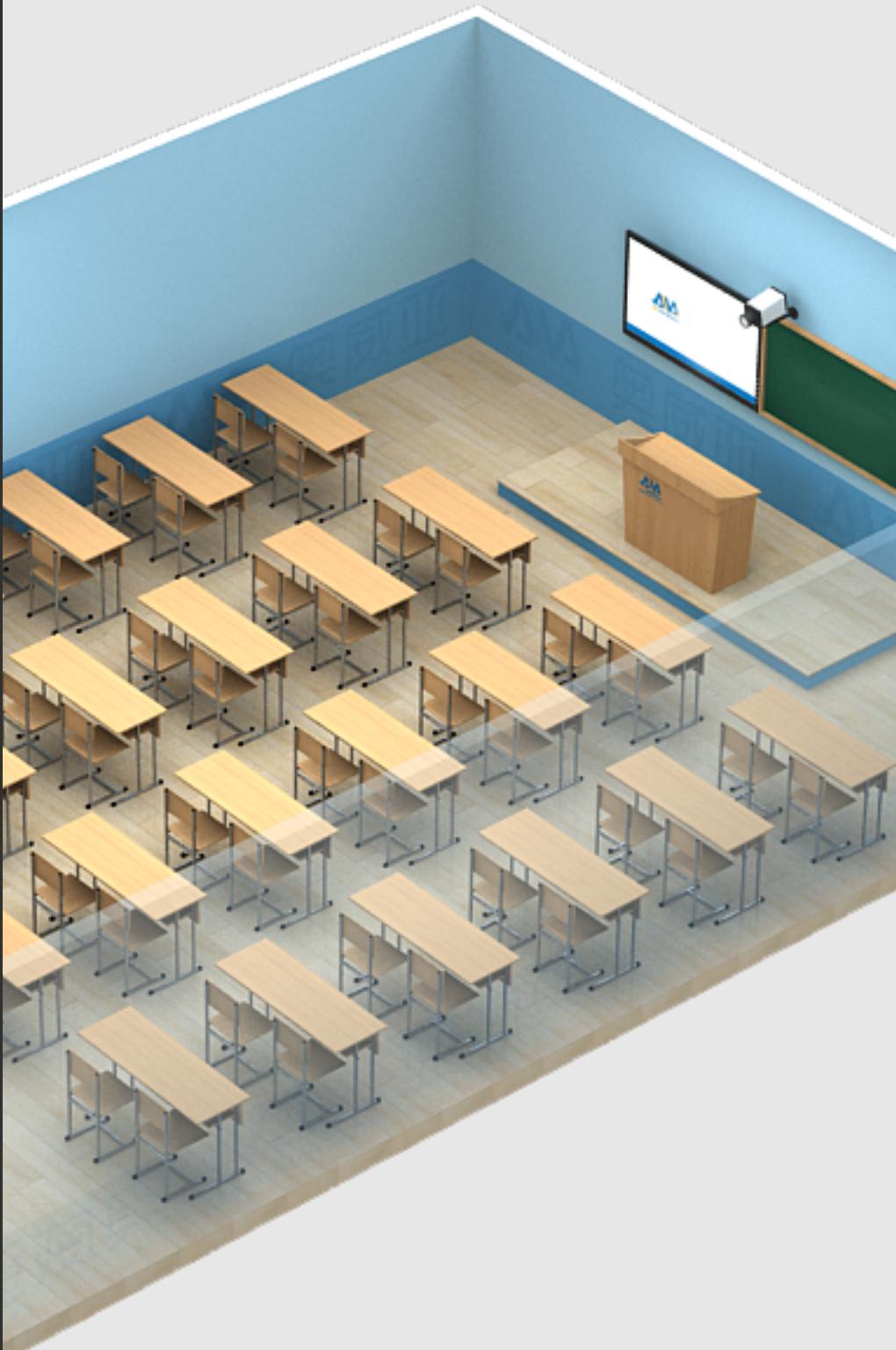
Floating Point Company Limited



# YOUR ULTIMATE TEACHING TOOLS

Teachers, how you can keep your students focus on what you are teaching? This question may have asked by a lot of teachers' interest group. Our interactive teaching tool- Tabella, which you can make your session more interesting by adding video, audio, web contents, and our interactive apps, should be the answer!

And, how teachers can post their session onto the schools' intranet, so that students can watch like YouTube and Ted? The answer is CARS (Classroom Automatic Recording System), which can help teachers to make their own Ted talk by just a one button operation.





## Classroom Automatic Recording System

One touch Ted talk production



## Portable Live Production System

Cable less or cable free production system

## Tabella - Interactive Flat Panel

The powerful teaching tool



Interactive Flat Panel



## Classroom Automatic Recording System

The intelligent HD Recording solution includes the video and audio capturing, signals processing, motion detection and tracking system. It is not necessary to have any operators to control any devices. The system shall capture and record wide shots and tight shots, switching shots in the program of the session automatically. The only step required is to ask teacher to press the “start” button!

AVA Educational SoC Technology

Super fast computing

Low power consumptions

Intelligent Video Switching

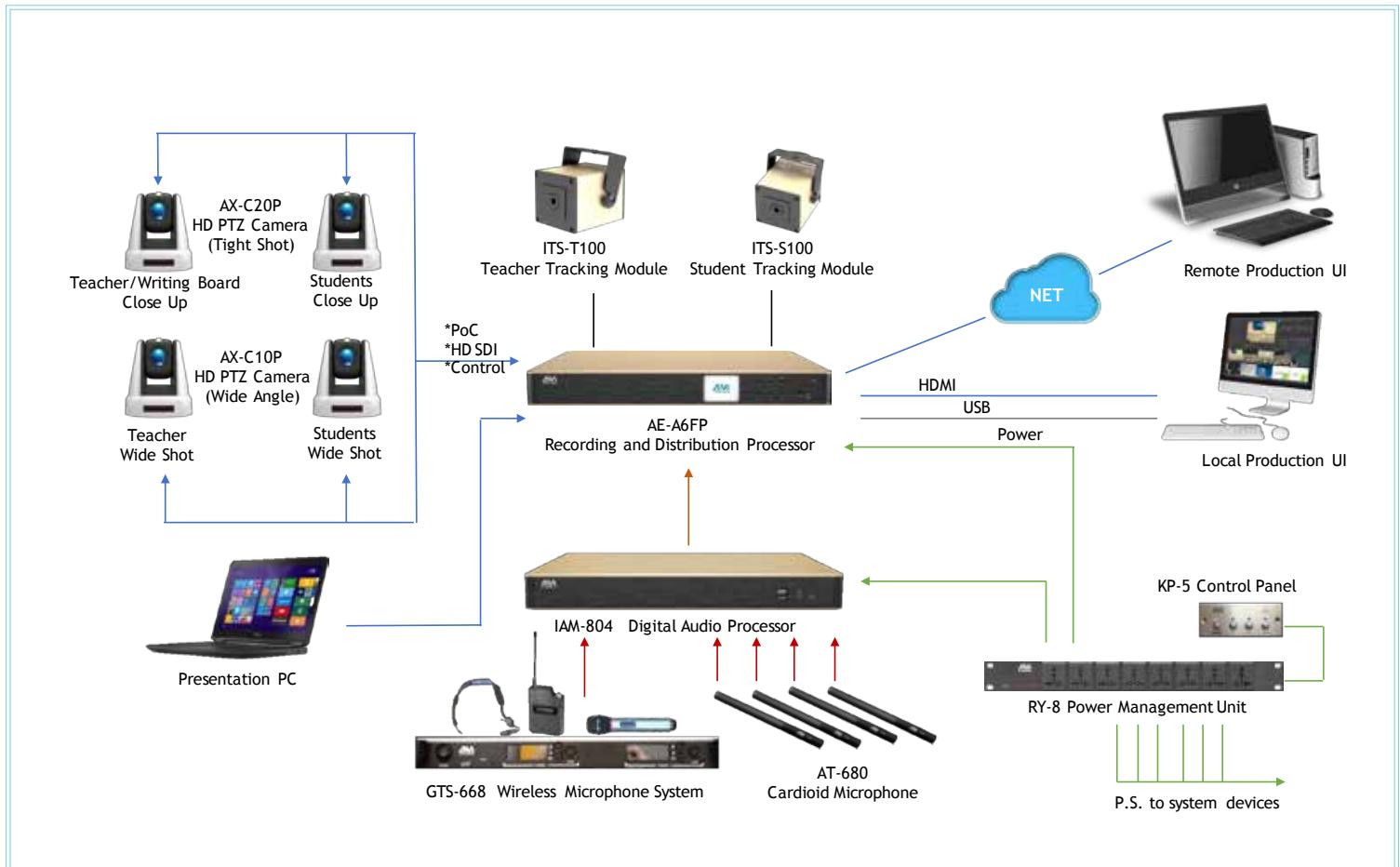
Cut/Mix/Wipe/Subtitle/Logo Effects

Expandable USB Storage

Automatic Dynamic PTZ Camera Control Real Time Images Analyses

Capture all the presentations in the lesson including teacher, students and PPT

Live streaming and broadcasting



# AE-A6FP

## Recording and Distribution Processor



The Innovative AE-A6FP is a highly-integrated professional processing unit for recording and distribution. It can do real time live video distribution at superior picture quality; and all contents including the automatic edited program, individual PTZ camera video source as well as the presentation materials shall be recorded and filed simultaneously. The recorded data will be utilized, managed and distributed to the needs according to different application purposes such as VOD. The traditional human operated camera shootings for education clips is no longer required. The AE product series will make the production, recording and distribution for education video contents easier than ever before. Now, teachers can record their training material and teaching lessons by themselves and manage their recorded material efficiently. AE-A6SFP and AE-A6MFP have additional interactive functions for remote distance teaching and video conference purpose.

## Features

- Highly integrated functional SoC infrastructure design for video live streaming, VOD, recording, automatic editing, camera control as well as object tracking
- Standard and high quality media format MP4 are adopted. They can be retrieved by most of the video playback software and web cast.
- Multiple input channels of high definition 1080P video are processed and recorded simultaneously including 4 CH of SDI cameras and 1 HDMI/VGA computer video signal.
- Control the video switching and operations menu (user friendly GUI) locally or remotely (by web network).
- Able to record program content and all individual input resources simultaneously.
- Built-in advanced tracking function. Precise automatic tracking and switching shots is taken by connecting motion sensors which analyse teacher and students' movements.
- 2 channels digital HDMI real time outputs, adjustable video resolution.
- Solution of connecting the HD PTZ Camera by only one single SDI cable to transmit video signal, power supply and control PTZ of the camera.
- Built-in Interactive function. The AE processors in different classrooms can be networking by point-to-point or multipoint connections (only AE models with suffix xxSFP or xxMFP, eg. AE-A6SFP), remote distance interactive teaching lessons or seminars can be held.
- Support SIP, H.323 protocol of common video conference systems.

## AE-A6FP / AE-A6SFP / AE-A6MFP

System Structure	Functional System-on-Chips Infrastructure
Video Capture Method	Hardware Capturing
Video Inputs	HD:VGA * 1, HDMI * 1, SDI *4, YPbPr * 1, SD-S-Video *1, CVBS * 1
Input Format	HDMI/VGA: 640x480@60, 1080I@50/60, 1080P@50/60 3G-SDI/YPbPr: 720x576-PAL, 720x480-NTSC, 720P@50/60, 1080I@50/60, 1080P@50/60 S-VIDEO/CVBS: 720x576-PAL=720x480-NTSC
Video Outputs	2 Independent CH HDMI; Types: Directing Broadcast GUI/ Main Program Output
Network Stream Out	RTSP, TS Stream
Streaming System Delay	≤1s (Excl networking delay)
Recording Format	MP4
Video Bitrate	48Kbps-10Mbps Adjustable
Video Encoding	Max 1920x1080, H.264
Audio Encoding	AAC
Audio Connectors	2*MIC IN, 2*Line IN; 1*Monitor Out, 1*Line Out
PoC Connection	SDI Cable Support Video, Control and Power
Records and Broadcasts	Live Broadcast/ Sync Recording/ Remote Directing broadcast/ Local Directing Broadcast/ Online VOD/ Users Management/ USB Recording
Director Management System	Local Video Preview/ Live Stream Monitoring, Video Switching, Audio Adjustment, Reording modes, Video Transition Effects, Subtitling, Logo etc
Tracking by mouse click	✓
Single/ Multi Streams	✓
High/Low Bitrate	✓
Content Index	✓
Recording Capacity	2TB
LCD Color Display	2.2" TFT
Control Panel	✓
Control Interface	RS-232/RS-485 2ports; 1000M Ethernet Port*1; PTZ Control*6; USB*4
Keyboard and Mouse Control	Support
Unit Height	1U
Remote Interactive	Build In Ineteractive Module (Model AE-A6SFP and AE-A6MFP only)

## Single Coaxial Cable Connection Simple, Safe & Direct PoC Technology

POWER TO CAMERA

FULL HD VIDEO

PTZ CONTROL





# AX-C20P HD PTZ Camera (Tight Shot)

# AX-C10P HD PTZ Camera (Wide Angle)

The AX-C20P/C10P Pan-Tilt-Zoom HD Camera is specifically designed for education purposes. They are widely used in the installations of standard classrooms, conference rooms, recital halls of academies. It acts as main or auxiliary camera in a classroom or interactive learning system. The AX-C20P captures the close-up images. The wide-angle lens of AX-C10P is able to capture all the people in the venue. With smooth framing control and accurate focusing, high quality and clear images are reproduced.

## Features

Producing high quality image even in low luminance environment. Suitable for most of the classrooms with normal lighting fixtures.

Maximum output resolution for HD is 1920 x 1080. The maximum frame rate is 30fps. Ensure output fluency and stable images even at high resolution.

Signal-to-Noise ratio of a camera is key factor affects the efficiency of the encoding process in classroom/conference-room's main processing unit. AX-C20P/C10P features dynamic 2D and 3D motion detecting noise reduction algorithm, in addition to its high sensitive image sensor, it decreases the noise level significantly.

20 times optical zoom (AX-C20P)

10 times optical zoom (AX-C10P)

Variety of interface ports; HDMI, SDI and Mon Outputs.

Network AV multimedia stream output.

Supports H.264 encoding output.

Supports SD card recording

Supports PoE

Innovative PoC technology that power line, video and control signals can be transferred by one SDI coaxial cable.

	AX-C20P	AX-C10P
Video Outputs	HDMI, SDI	
Image Sensor	CMOS 1/2.7"	CMOS 1/3"
Sensor Resolution	Total Pixels: 2.20M Effective Pixels: 2.12M	Total Pixels: 4.18M Effective Pixels: 4.08M
Scan Mode	Progressive Scan	
LENS Focal Length	20x Optical Zoom, 16x Digital Zoom, f4.42mm ~ 88.5mm, F1.8 ~ F2.8	10x Optical Zoom, 8x Digital Zoom, f3.05mm ~ 30.5mm, F2.0 ~ F8.0
Focus Mode	Auto, Manual	
Sensitivity	0.5 Lux @ (F1.8, AGC ON)	
Electronic Shutter	1/25s ~ 1/10000s	
White Balance	Auto, Indoor, Outdoor, One push, Manual	
Backlight compensation	Support	
Digital Noise Reduction	2D&3D digital noise reduction	
SN Ratio	≥55dB	
Horizontal Angle	60.7° ~ 3.36°	80.7° ~ 9.85°
Vertical Angle	34.1° ~ 1.89°	48.6° ~ 4.1°
Horizontal Pan Range	±170°	
Vertical Tilt Range	-30° ~ +120°	
Horizontal Pan Speed	1.0° ~ 94.2° /s	
Vertical Tilt Speed	1.0° ~ 74.8° /s	
Horizontal/Vertical Image Reverse	Support	
Preset Position Numbers	255	
Preset Position Accuracy	≤0.1°	
Network Port	RJ45	
Audio Port	Line In, 3.5mm	
SD Slot	Micro SD Card	
Com Ports	RS232□RS422	
Control Protocol	VISCA	
Video Resolution	Max 1080P/30	
Network Stream Protocol	RTP, RTSP	
Video Encoding	H.264	
Audio Encoding	AAC	
Power Supply	PoC, POE(Option), AC Adaptor(Option)	
Power Consumption	13W	



# ITS-T100 Teacher Tracking Module

## ITS-S100 Students Tracking Module

ITS-T100 Teacher Tracking Module analyses the video screen image changes. It can identify the speaker's position intelligently, and drives the pan-tilt-zoom camera head to track the speaker to shoot. Teacher is not required wearing any identifying items that make the track-and-shoot simple and easy.

ITS-S100 Students Tracking Module analyses the behaviour of every student in the class.

ITS-T100/S100 adopts the PoE (Power on Ethernet) technology.

## Features

According to the actual situations, ITS-T100 tracks teacher's activities correspondingly. When the teacher move towards to an area, the system can determine the location correspondingly and drives the camera framing the teacher appropriately.

Normal tracking technology using traditional positioning concept, the camera chases the speaker tightly using the "follows" approach; even if the speaker turned around a bit, the camera also will move and follow. Such frequent movements will produce serious jitter screens. The recorded contents are dull and dazzling.

The innovative ITS-T100 teacher tracking sensor operates with "fuzzy logic image stabilization". It allows the speaker move in the foreseeable range while the automatic tracking system can maintain the still of the camera.

The principle is to shoot the speaker as far as possible, at the same time it reduces the frequency of camera's rotation. As a result, the picture quality is greatly improved especially in fluency, effect of rationality and stability.

### Normalization shooting process. Convenient and no interferences.

ITS-T100 and ITS-S100 gets rid of external environmental impacts such as interferences of light, sound, electromagnetic and others. Its comprehensive features and easy installation make it simple to use. The shooting subject does not need to wear any positioning device, nor pressing any buttons. Teachers and the lesson activities can be progress as normal and usual.

### Leading image recognition technology

Employing the advanced image recognition technology together with the independent tracking module, it is a real time automatic filming solution with accurate teacher and students positioning.

	ITS-T100	ITS-S100
Scan Mode	Progressive Scanning	
Frame Rate	30fps	
Image Sensor	1/3 Aptina AR0330	1/3 Sony IMX122
Effective Pixels	1920(H) x 1080(V)	
S/N Ratio	> 48dB (AGC Off)	
LENS	Built-in Lens: f=2.3mm	
Minimum Illumination	0.3Lux	
Auto White Balance	ON	
Auto Exposure	ON	
Focus Mode	Manual	
Port	Network Control	
Power Supply	PoE	



## RY-8 Power Management Unit

Eight units of power sockets with time sequential power management function. It has programmable control interfaces, such as RS-485 / RS-422 / RS-232, for a variety of purposes.

### RY-8

Features power management for Recorded Broadcasting System

8 CH of Power Switch Control

Power ON/OFF in sequential order with 1sec delay per Channel (programable)

Built-in Optoelectric isolators ensure stable and safe operation of main processors and other loadings

Single channel switch capable 20A rating

Total capacity of RY-8 is 30A. 30A terminal connector for power inlet is provided



# GTS-668

## Wireless Microphone System

The GTS-668 features a wide range of high-tech designs in the industry such as ultra-high frequency (UHF) transmission, diversity reception, dual CPU control, liquid crystal display, PLL phase-locked loop technology and noise detection etc.

200 selectable infrared frequency.

## Features

A delicate product with design details for high performance.

The body structure is strong; any vulnerable parts has been strengthened in the design process

Thanks for the strong shock absorbing design on mic capsule, noise level is very low even when handheld

Stable wireless signal is transmitted from the bottom of the microphone that expands the receiving distance range

Equalized and well balance frequency response. Sound is so relaxing and stretching. Voice is full of expression. Details processing on mid-low range to meet the requirements of entertainment works.

SMT technology is taken in the production. Every product has been passed the rigorous burn-in test that results stable and reliable performance.

### GTS-668

Transmission Frequency	740MHz---790MHz
Modulation	FM
Oscillator Mode	PLL
Biase	$\pm 48\text{KHz}$ (Auto Level Limit)
Channel Bandwidth	250KHz
S/N Ratio	>105dB
Distortion	$\leq 0.3\%$ (1KHz $\square$ A $\square$ )
Frequency Response	40Hz-18KHz( $\pm 3\text{dB}$ )
<b>Receiver</b>	
Receiving Mode	Automatic
Oscillator Mode	PLL
Sensitivity	12dBuv
Harmonic Wave Interference Ratio	>80dB
Image Frequency Interference Ratio	>70dB
<b>Handheld Transmission Microphone</b>	
Transmission Power	10mW
Max. Inputs	130dB
Transducer Type	Condenser Mic or Dynamic Mic (Selectable)
Battery used	AA Battery*2pcs
<b>Beltpack Transmitter</b>	
Transmission Power	10mW
Oscillator Mode	PLL
Mic Capsule	Condenser Mic
Capsule Polar Pattern	Omnidirectional, Cardioid and Supercardioid (Selectable)
<b>Capsule Wearing Method</b>	Lavalier, Headset (Selectable)

### AM-1200

Frequency Response	20Hz-20KHz $\square$ +0/0.5dB 1W/8 $\Omega$
Output Power	2x200W (8 $\Omega$ ) , 2x350W (4 $\Omega$ )
SN Ratio	100dB(at 8 $\Omega$ @1kHz)
IMD	$\leq -90\text{dB}$
Slew Rate	$\geq 25\text{V}/\text{us}$
Load Impedance	4-8 $\Omega$
Sensitivity	0dB(0.775V) (at 8 $\Omega$ rated output)
Power Supply	220V/50Hz-60Hz
THD	<0.01%(8 $\Omega$ ,60Hz-7KHz)
Input Connection	Female XLR, (pin2+, configurable for pin3+), TRS(tip+)
Output Connection	5-way binding port or speaker connectors
Dimension	480mm*350mm*45mm 1RU

## AM-1200 Power Amplifier





# CS-305

## Professional Conference Speakers

The professional conference speaker composed of a NdFeB magnet film tweeter and high effective woofer. The speakers reproduce a wide range of frequencies with even sound field coverage over large listening area. Polyester shell effectively resist external damage, and also to withstand indoor and outdoor temperature changes, humidity and other harsh environmental erosion. The speaker comes with a metal bracket, which is useful for wall mount installation.

## Features

Small size, high power. Convenient and flexible ways for installation. Suitable for different venues

Different units can be combined and oriented according to different environments

Built-in standard HF linear characteristic that reproduces pure and clear sound to ensure high fidelity.

The unique units' combination technology eliminates the low-frequency signal harmonic distortion so that purer bass is obtained

High performance electrodynamic drivers are adopted to achieve high efficiency. Higher power input signals can be applied to bring high sound pressure level but very low distortion. The speakers are durable and suitable for long-term use.

### CS-305

Tweeter	1"
Woofer	6.5"
Frequency Reponse	60Hz-20KHz
Impedance	6Ω
Power	60W(RMS) 120W(PEAK)
Sensitivity	91dB
Max Input	105dB
Color	white/black
Shell Material	Polyester
Mounting Kit	U shape hanger
Dimensions (WxHxD)	13x300x195mm
Weight	4Kg/pcs

## KP-8P Control Panel

KP-8P control panel is specially for Interactive functions of AVA recording and distribution processors. It supports ONE BUTTON CLICK to trigger the system power and the START/STOP of Classroom Automatic Recording System (CARS). KP-8P is useful in interactive remote distant learning class system. The direct quick keys switch among the local video source and remote video sources. Together with pre-set buttons for switching different screen layouts, teachers feel simple to use and they just conduct the lessons in usual way.

### KP-8P

To be mounted on speech stand
Supports one key control of system power ON/OFF
One key control of START/STOP recording
One key trigger the interactive learning and connect signals among different learning classrooms/venues.
Switch among video sources to output to interactive screens, and output it to different classrooms or venues.
The screens may include local teacher framing, computer material, signals from individual remote classrooms
Supports kinds of layout of multiview screen, such as full screen, double, triple or quad splits and PinP.
The multiview signal is transmitted to other remote learning classrooms/venues.
Control Interface: RS-232

## KP-5

### Control Panel (For CARS System)



# CARS Mini

## Classroom Automatic Recording System

One Key START/STOP Recording

Easy Installation and Setup

AVA Educational SoC Technology

Super-fast computing

Low power consumptions

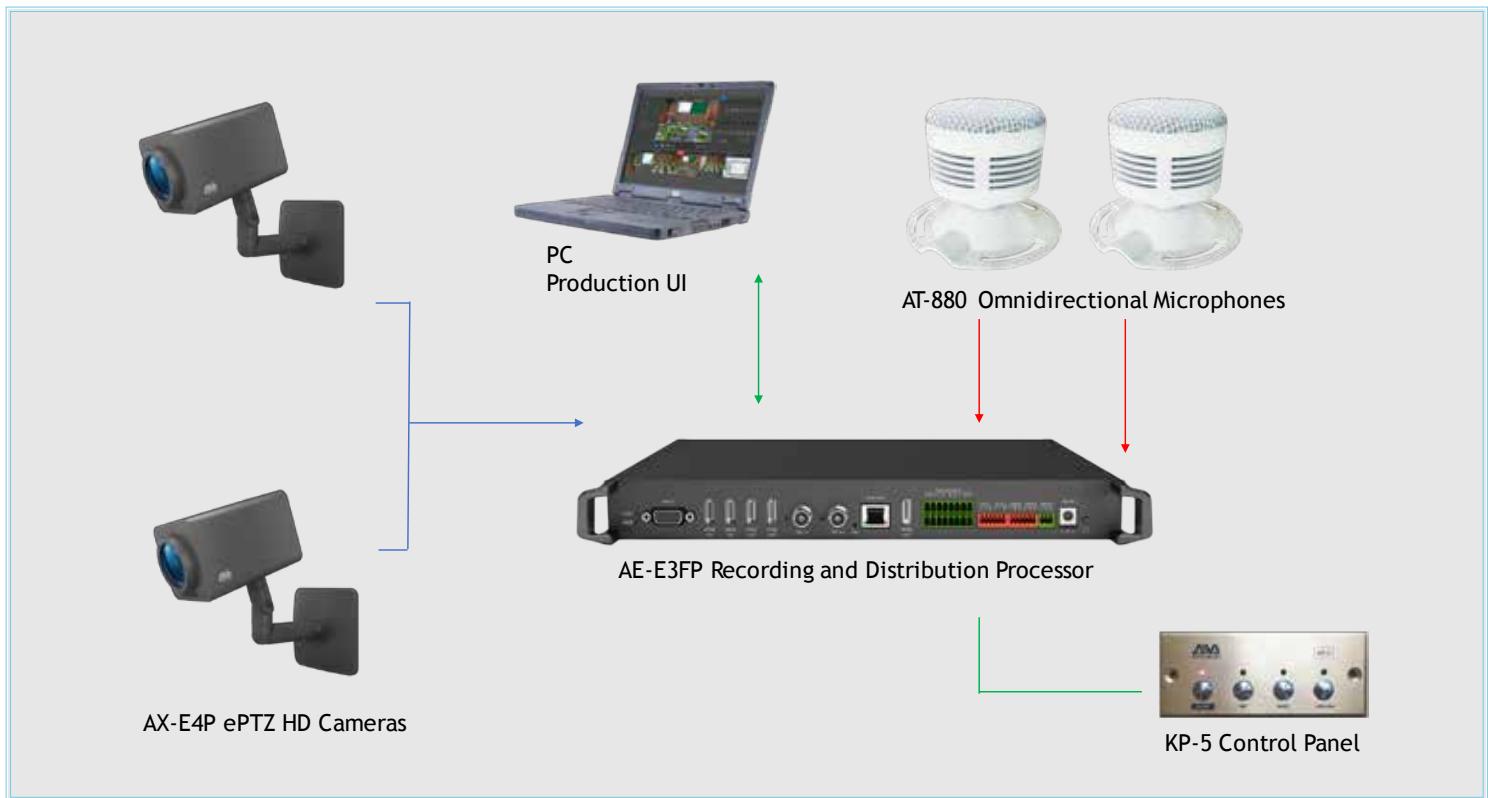
Cut/Mix/Wipe/Subtitle/Logo Effects

Dynamic ePTZ Camera Control Real Time Images Analyses

Intelligent Automatic Tracking and Switching Features

Capture all the presentations in the lesson including teacher, students and PPT

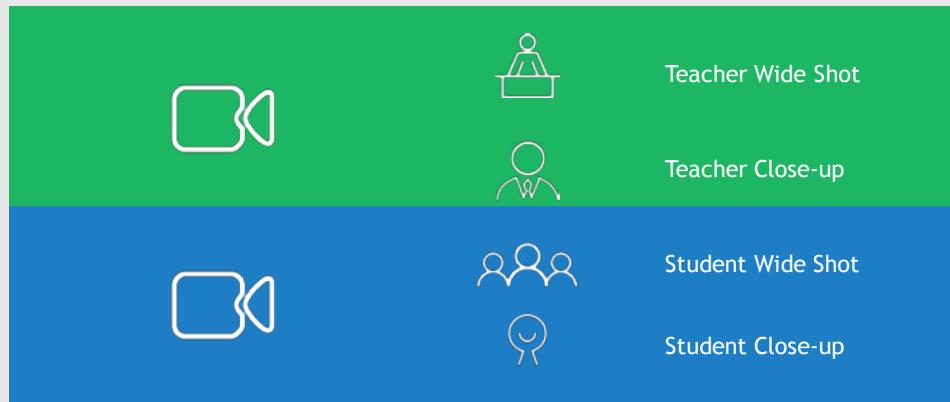
Live streaming and broadcasting



**Dynamic ePTZ Camera Control**

**Real Time Images Analyses**

**Automatic Tracking**



# AE-E3FP

## Recording and Distribution Processor



The AE-E3FP is a compact processor unit for recording and distribution. It can do real time live video distribution; all the production contents including the automatic

edited program, individual PTZ camera video sources as well as the presentation materials are all being recorded and filed simultaneously. The recorded data will be utilized, managed and distributed to the needs according to different application purposes such as VOD. The traditional human operated camera shootings for education clips is no longer required. The AE product series will make production, recording and distribution for education video contents easier than ever before. Now, teachers can record their training material and teaching lessons by themselves and manage their recorded material efficiently.

AE-E3SFP and AE-E3MFP has additional interactive function for remote distance teaching and video conferencing purpose.

## Features

- Highly integrated functional SoC infrastructure design for video live streaming, VOD, recording, automatic editing, camera control as well as object tracking
- Support common media format MP4. They can be retrieved by most of the video playback software and web cast.
- Multiple input channels at max 1080P HD are processed simultaneously including SDI cameras and HDMI/VGA computer video signal.
- Control the video switching and operations (GUI menu) remotely through web network.
- Simultaneously recording of program content and all input resources.
- Built-in advanced tracking function. Automatic tracking and recorded broadcasting by analysing teacher and students' movements.
- 3 channels digital HDMI real time outputs, video resolution can be adjusted.
- Featured PoC technology that video signal, control data and power supply can be transmitting through a SDI BNC cable
- Built-in electronic PTZ function. Stable and smooth pan-till-zoom control for desire framing of capturing camera images.
- Built-in AV Interactive function. The AE series processors in different classrooms can be networking by point-to-point or multipoint connections (only AE model with suffix xxSFP or xxMFP, eg. AE-A6SFP), remote distance interactive teaching lessons or seminars can be held
- Support SIP, H.323 protocol of common video conference systems.

## AE-E3FP / AE-E3SFP / AE-E3MFP

System Structure	Functional System-on-Chips Infrastructure
Video Capture Method	Hardware Capturing
Video Inputs	HD: VGA * 1; HDMI * 2; SDI * 2 ;
Video Outputs	3 CH HDMI: 1 CH Program Out & 2 CH HDMI Loop through Out
Network Stream Out	RTSP, RTMP
Streaming System Delay	≤1s (Excl networking delay)
Recording Format	MP4
Video Bitrate	48Kbps~10Mbps, Adjustable
Video Encoding	Max 1920x1080, H.264
Audio Encoding	AAC
Audio Connectors	2*MIC IN ,2*Line IN; 1*Line Out
PoC Connection	SDI Cable Support Video, Control and Power
Records and Broadcasts	Live Broadcast/ Sync Recording/ Remote directing broadcasts menu control/ Online VOD/ Users Management
Director Management System	Local Video Preview/ Live Stream Monitoring, Video Switching, Audio Adjustment, Reording modes, Video Transition Effects, Subtitling, Logo etc
Tracking by mouse click	Support
Automatic Tracking System	Built-in
Electronic PTZ Control	Support
High/Low Bitrate	Support
Content Index	Support
Recording Capacity	1TB
Control Interface	RS-232/RS-485 *2 , 1000M Ethernet Port*1
Remote Interactive	"(Only AE-E3SFP and AE-E3MFP) Interactive Module; Max Resolution 1920x1080 ; Support AVA Standard Interactive protocol Support H.323, SIP protocol. Built-in MCU (only AE-E3MFP), "

## Production GUI of AE Series Recording and Distribution Processor





## AX-E4P ePTZ HD Camera

The AX-E4P ePTZ super high definition camera is tailor made for education purpose. It is the key components in CARS-Mini classroom automatic recording system for capturing the HD color images. With the AVA AE-E3FP Series recording and broadcasting processor, one unit can produce wide shot and tight close images intelligently. The inherent wide angle coverages all people inside the classroom. By utilizing the electronic pan-tilt and focusing function, it reproduces stable, smooth and clear images.

## Features

Image sensor of AX-E4P totally has 4.20 Mega pixels. Max output resolution for HD is 1920 x 1080. The maximum frame rate is 30fps. Ensure output fluency and smooth images at high resolution.

Signal-to-Noise ratio of a camera is key factor affects the efficiency of the encoding process taken place in classroom/conference main unit. AX-E4P features dynamic 2D and 3D motion detecting noise reduction algorithm, in addition its high sensitive image sensor, it decreases the noise effectively.

Supports H.264 encoding output.

Innovative PoC technology that power line, video and control signal can be transferred by one SDI coaxial cable.

### AX-E4P

Video Outputs	SDI, Ethenet Port
Image Sensor	CMOS 1/3"
Sensor Resolution	Total Pixels: 4.18M; Effective Pixels: 4.08M
Scan Mode	Progressive Scan
Focus Mode	Auto, Manual
Sensitivity	0.5 Lux @ (F2.0, AGC ON)
Electronic Shutter	1/25s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One push, Manual
Backlight compensation	Support
Digital Noise Reduction	2D&3D digital noise reduction
Horizontal Angle	80.7° ~ 9.85°
Vertical Angle	48.6° ~ 4.1°
Network Port	RJ45
Audio Port	Line In, 3.5mm
Network Streaming Protocol	RTP / RTSP
Video Encoding	H.264
Audio Encoding	AAC
Power Supply	PoC; Power AC Adaptor (Option)
Power Consumption	6.0W

## AT-880 Omnidirectional Microphone



A beautiful white ceiling mounted omnidirectional pickup microphone. Bright transparent voice, rich in detail and strong sense of hierarchy. It is very suitable for recording, interviews and other occasions and good for indoor usages.

### AT-880

Pickup Mode	Omni-directional
Frequency Response	40-20 KHz
Sensitivity	-38dB±2dB; 1dB=1V/Pa at 1kHz
Standard Impedance	25Ω
Min Connecting Impedance	800Ω
Maximum Sound Pressure Level	130dB when 1kHz
Power	phantom 48±12V
Current	2mA
Size	Φ85×72mm
Weight	About 231g

# IAM-804 Digital Audio Processor



IAM-804 is generally used in small to medium size professional audio systems. Applications include theatre, concert hall, video conference, sport venues, churches, conference centre, theme parks and PA systems etc. Its operation is simple and intuitive. On top of the basic digital audio matrix functions, it has unique automatic noise control (ANC). The device supports max 8 channels input and 4 channels output of analog audio; and 1 USB extended recording and broadcasting channel. The high quality 21 steps preamplifier circuits, DSP processing mastering bus structure, built-in feedback eliminator, noise canceller, echo canceller that ensure the outstanding sound quality.

## Features

24bit/48KHz sampling frequency, high performance A/D and D/A conversion and 32 bit floating point DSP processing; Full function audio matrix mixer.

High precision inputs with sensitivity control, total 21 steps at 3dB interval; Max input gain is 60dB

Efficient functional processes include AFC, AEC, ANC, Automixer, EQ, Gate and AGC etc.

Connection ports: GPIO, USB, RS-485 and RS-232.

Supports scene preset function, user friendly operation interface.

Quick and intuitive web page controlling

### IAM-804 Specifications

Max Inputs	8
Max Outputs	4
RS 232	1
RS 485	1
GPIO	8 I/O, Assignable
RJ45	1
USB	1: Support Record/Spread
Max Analogue Gain	-60dB
Phantom Power	48V
IN/OUT Sampling	48KHz/24bit
A/D Dynamic Range	120dB
CMR	80 dB @ +24dBu @60Hz
Input Impedance	20kΩ balance, 10kΩ unbalance
Max Input Level	24dBu
D/A Dynamic Range	120dB
Channel Isolation	100dB
Frequency Response	20-20kHz (±0.25dB)
THD+N	≤0.002% @1kHz +4dBu
Output Impedance	100 Ω balance, 50Ω unbalance
Max Output Level	24dBu
Power Rating	AC 90V-260V AC=50Hz /60Hz
Op. Temperature	0-40°C

## AT-680 Cardioid Microphone

Excellent directional shot gun microphone in metallic matte black shell.

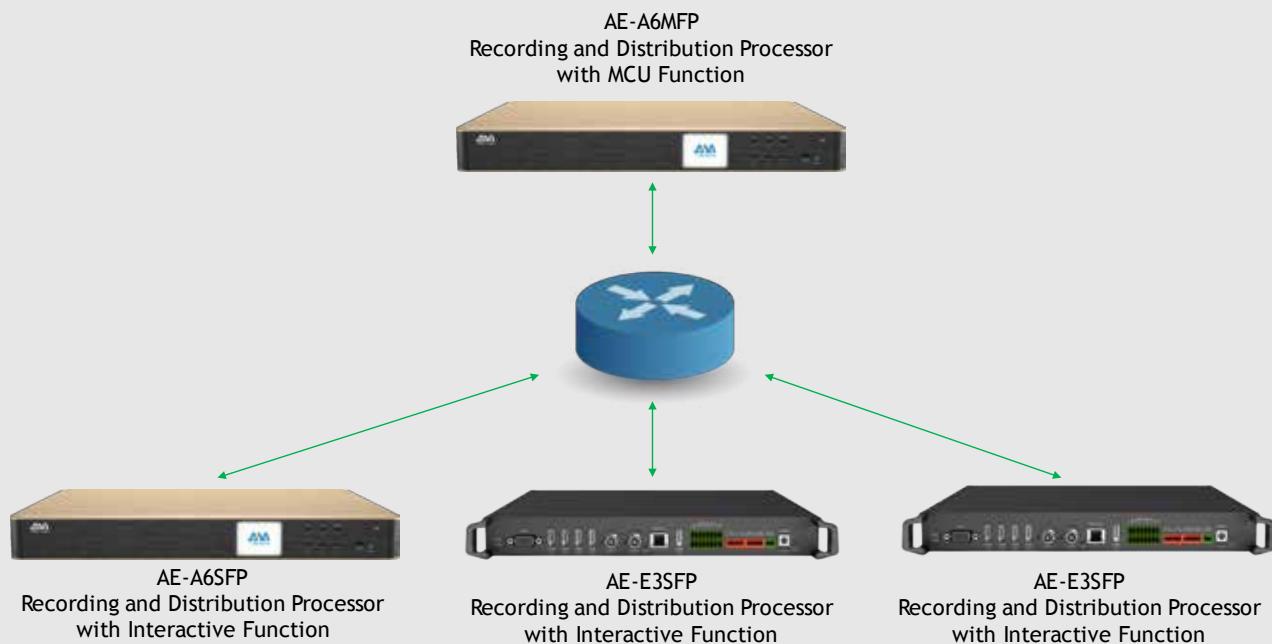
Sophisticated design, high resolving power and noise suppression.



### AT-680

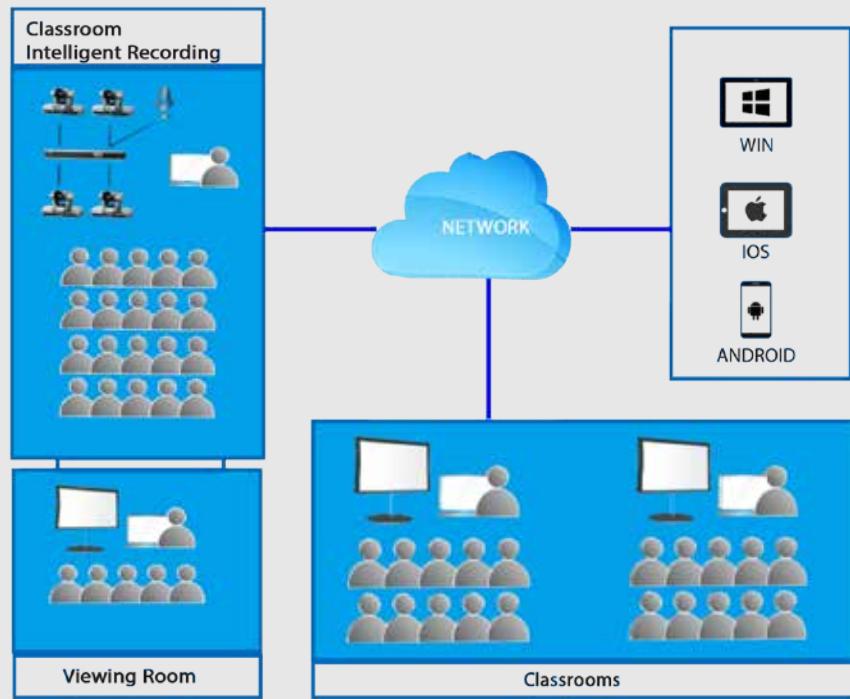
Mic Capsule	Electret Condenser Microphone
Pickup Direction	Hypercardioid
Frequency Response	40Hz-16KHz
Low Frequency Attenuation	Built In
Sensitivity	-29dB±3dB=1V/Pa at 1kHz
Output Impedance	500Ω±20% at 1kHz
Max. Sound Pressure Level	500Ω±20% at 1kHz
S/N Ratio	70dB±1KHz at 1Pa
Dynamic Range	106dB±1kHz at Max SPL
Power Supply	48V Phantom (48V DC), 2mA
Weight	165Kg (excl accessories)
Dimension	Φ19×206mm
Connector	XLR Male

## Interactive Remote Distance Teaching



KP-8P

- 1 ONE KEY System Power On/Off
- 2 ONE KEY Connect & Setup
- 3 ONE KEY Record & Broadcast
- 4 ONE KEY Changing Interactive Points



## CARS System Configuration List

Item	Product Name	Model No.	QTY
1	Recording and Distribution Processor	AE-A6FP	1
2	CARS Production System License	V8.0	1
3	Digital Audio Processor	IAM-804	1
4	Cardioid Microphone	AT-680	4
5	Wireless Microphones Kit	GTS-668	1
6	HD PTZ Camera (Tight Shot)	AX-C20P	2
7	HD PTZ Camera Module (Wide Shot)	AX-C10P	2
8	Teacher Tracking Module	ITS-T100	1
9	Student Tracking Module	ITS-S100	1
10	Control Panel	KP-5	1
11	Power Management Unit	RY-8	1
12	Production Control Panel (Option)	DCP-1000	1
13	Amplifier	AM-1200	1
14	Speaker (pair)	CS-305	1
15	Teacher Stand		1
16	Interactive Flat Panel (Optional Screen Size)	Tabella L65EB	1
17	Racks		1
18	Cables (lot)		1
<b>Interactive Remote Classroom Learning</b>			
	Processor - Incl. Interactive Module	AE-A6SFP	1
	Processor - Incl. MCU Module	AE-A6MFP	1
	Upgrade license key from A6FP to slave function		1
	Upgrade license key from A6FP to MCU function		1

## CARS Mini System Configuration List

Item	Product Name	Model No.	Qty
1	Recording and Distribution Processor	AE-E3FP	1
	CARS Min Production Software License	Included	1
2	Omnidirection Microphone	AT-880	2
3	Digital Audio Processor	IAM-804	1
4	HD Camera Module	AX-E4P	2
5	Control Panel	KP-5	1
6	Power Management Unit	RY-8	1
7	Amplifier	AM-1200	1
8	Speaker (1 pair)	CS-305	1
<b>Interactive Remote Classrooms Learning</b>			
	Processor- Incl Interactive Module	AE-E3SFP	1
	Processor- Incl MCU Module	AE-E3MFP	1
	Upgrade license key from E3FP to E3SFP		1
	Upgrade license key from E3FP to E3MFP		1

# Mobile Production System

The Potable Live Production Unit enables intuitive, easy operation.

The unique “power on cable” PoC and wireless connection provide a cable less or cable free production system.

Built-in recording and distribution functions.



AE-V6FP  
Mobile Production Unit





## AE-V6FP Mobile Production Unit

This all in one mobile unit easy the setup for a live production system. High performance hardware design with system on chips (SoC) technology ensure stable and reliable operations. Real time multi-cameras production, recording, live broadcasting and network streaming. Built-in HD display

### Features

- Portable small in size with all the features of AV Live productions at high definition. High mobility for production works at any indoor venues and outdoor environment.
- Quick system deployment. Using PoC technology, connecting camera and the production unit by just one SDI cable. With the optional antennas, you can even connect four cameras and the unit wirelessly.
- All in one design for education class recording and AV live production. Practical switcher effects including types of transition modes, chroma key, logo insertion and subtitle etc. In addition to the 4 CH HD SDI sources, VGA/HDMI inputs for teacher's PPT.
- Broadcast quality H.264 video and ACC audio format recording. The unique system-on-chip hardware infrastructure ensures stable and fast response, low signal latency and low power consumptions.
- Delegated built-in control panel for production server and switcher operation. The panel layout is very intuitive with scene preset buttons and Pan/Tilt/Zoom cameras control. 15.6" HD display GUI running on reliable Linux OS platform.
- Optional AE-V6SFP can be integrated in interactive classrooms teaching system.

### AE-V6FP/ AE-V6SFP

System Structure	Functional System-on-Chips Infrastructure
Video Capture Method	Hardware Capturing
Video Inputs	HD:VGA * 1, HDMI * 1; SDI *4
Video Outputs	1CH HDMI=1CH SDI
Network Stream Out	RTSP, RTMP
Streaming System Delay	≤1s (Excl networking delay)
Recording Format	MP4
Multiple Streams Recording	✓ (Capable to record every Input Source)
Video Bitrate	48Kbps~10Mbps, Adjustable
Video Encoding	Max 1920x1080, H.264
Audio Encoding	AAC
Audio Connectors	2*MIC IN, 2*Line IN; 1*Line Out, 1*Monitor Out,
PoC Connection	One SDI cable supports Video Singal, Control Signal and Power Supply
Records and Broadcasts	Live Broadcast/ Simultaneously Recording/ Remote Directing Broadcast/ Local Directing Broadcast/ Online VOD/ Users Management/ USB Recording
Real Time Production Broadcasts	Local Production with GUI operation and Remote production control thru network; Local Video Preview / Live Stream Monitoring, Video Switching, Audio Adjustment, Reording modes, Video Transition Effects, Subtitling, Logo etc
Color LCD Display	15.6", Resolution 1920*1080
High/Low Bitrate	✓
Recording Capacity	1TB
Control Interface	RS-232/RS-485 2ports; 1000M Ethernet Port*1
USB Ports	USB3.0*1, USB2.0*3
Dimension	380mm*254mm*55mm



Configuration List - Wireless Live Production Mobile System

Item	Product Name	Model No.	QTY
1	Mobile Production Unit	AE-V6FP	1
2	Recording Management Software	V1.0	1
3	Tight Shot Camera Module	AX-C20P	2
4	Wide Angle Camera Module	AX-C10P	2
Optional	Handheld Wireless Mic	UWP-D12	1
Optional	Lapel Wireless Mic	UWP-D11	1
7	Tripod		4
8	Wireless Receiver/Transmitter	LAEW-7811UAC	5
9	Wireless Mobile Video Encoder	AWX-F2	1
10	Cable (1 lot)		1
11	Flight Case		1



# TABELLA

## Interactive Flat Panel

Tabella - A Latin word for blackboard, the presentation aid which was invented over 200 years.

Tabella - your Interactive Flat Panel comes with sizes 55", 65", 75" , 86" and 98".

Tabella - your tools to creative presentation

**High Accurate Touch Experience**

Accurate and smooth touch and writing experience

Support up to 20 points touch

**Multi OS plus Multi Module**

Built-in Android + Pluggable PC module

2nd High Performance Android Module for 75'/86"

Detachable Wifi Module

**Ultra-thin Design**

Ultra-thin design and ultra-narrow appearance

The USB ports are accessible to the PC and Android sources

**AG Glass**

AG Tempered Glass 4mm Mohs level 7



## Interactive Flat Panel

Model	L55EB	L65EB	L70EB	L75EB	L86EB
Resolution	55"	65"	70"	75"	86"
UHD 4K	•	•	•	•	•

## Windows Education Software For Plugin PC Module

(OS not included with PC module)

Tabella Interactive Flat Panels (IFP) feature easy-to-use tools such as “Note” for on-screen writing and slideshows. If you prefer to keep using familiar programs such as PowerPoint, you can do that too—the panels work well with multiple systems, and you’re free to choose what works best for you.



Annotate & Enrich  
your Presentations



Connect Mobile or  
Tablet to IFP



Video Capture Your  
Teaching & Share  
on IFP



Manage Your  
Interactive Flat  
Panels



Multimedia  
Broadcast &  
Sharing



## MT21 4K PC Module

(OS not included)

Intel 6th Skylake CPU

Intel®CoreTM i3/i5/i7 optional

Pin Connector: 120pin

4K2K/60hz output

Chipset: Intel H110 Express

Integrated HD Graphics

6xUSB 3.0 + HDMI/VGA/Display Port Out



## SI01 Dual Band Wi-Fi Module

Detachable USB port

Dual wifi bandwidth: 2.4GHz 15GHz

Bluetoth 4.0: one to one pair to transfer files and data

New generation 11ac: up to 433Mbps wireless transmission rate

Public hotspot setter: Get all your mobile devices online when the panel is connected to the Internet

A more stable network: Auto adjust the bandwidth in avoidance of channel interference



## SC03 Visualizer

Efficient, Simple, Clear and Smooth

SC03 is a compact wall-mount visualizer designed for classroom to cooperate with IFP devices; it can capture images, movement, scan and annotate paper documents and other objects through the IFP screen

## ST01 Mobile Stand

The height of the wall mount is adjustable.

Universal wheels with wheel brake design.



## SP05 Smart Pen

SP05 integrates the functions of writing, slide playback and annotation during presentations.

It also isolates pen writing and hand/gesture control which is convenient for users



## SL01 EasiCable

SL01 is one cable solution to sharing your PC/Mobile Device screen to Interactive Flat Panel via USB Port; It also provides reverse touch control of PC/Mobile Device through Interactive Flat Panel.

# TABELLA Interactive Flat Panel

Model	L55EB	L65EB	L70EB	L75EB	L86EB
<b>Display</b>					
Panel Size	55 inch	65inch	70 inch	75inch	86 inch
Aspect			16:9		
Display Area	1209.6mm*680.4mm	1428.48mm*803.52mm	1538.88mm*865.62mm	1649.664(H)*927.936(V)mm	1895.04(H)*1065.96(V)mm
Resolution			3840(H)*2160(V)		
Pixel Pitch	0.315mm*0.315mm	0.496mm*0.372mm	0.40075mm*0.40075mm	0.429mm*0.429mm	0.4935mm*0.4935mm
Back Light Unit			Direct type LED		
Response Time	9ms			8ms	
Refreshing Frequency			60Hz		
Display Color			1.07B (10bit)		
Brightness with glass(typ)	350cd/m2			330cd/m2	
Brightness with glass(min)	300cd/m2		270cd/m2		300cd/m2
Contrast Ratio	1200:1		4000:1		1200:1
Viewing Angle	178°		176°		178°
Life Time			30000 Hours		
<b>Video/Audio</b>					
Speaker Type			Built-in Speaker		
Output Power			12W*2		
<b>Connectors</b>					
HDMI Out			1		
USB		USB2.0: 4 (including 2 USB ports in front) ; USB3.0: 2 (including 1 USB port in front)			
Touch Out			2		
HDMI In 2.0 In			HDMI 2.0: 1 ; HDMI 1.4: 2		
DP In			1		
VGA In			1		
Audio In			1		
AV In			1		
RS232 Control			1		
Audio Out			1		
LAN			1		
COAX Out			1		
<b>Touch System</b>					
Sensing Type			Infrared recognition		
System		Windows10/Windows8/Windows7/Windows/XP/Vista/Linux/Mac/Android/Wince/Chrome			
Touch point			10 points writing and 20 points touch		
Writing Response			single-touch $\geq$ Φ6mm and multi-touch $\geq$ Φ8mm		
Touch Tool			Finger, Finger cover by glove, Opaque objects		
Response Time			<15ms		<20ms
Accuracy			$\pm$ 2mm(over 90% Area)		
Communication Mode			Full-speed USB (driver free)		
Interface			USB2.0 type B		
Touch Drive			Free drive		
Surface Hardness			Toughened Glass with Level 7 of Mohs Standard		
Output Coordinate			32767*32767		
<b>Android System</b>					
System Version			Android 5.1		
CPU			ARM Cortex A53 Dual Core CPU		
GPU			Quad Core Mali 450MP		
RAM / (ROM)			2G / (16G)		
<b>General</b>					
Power Requirements			100-240V- 50/60Hz		
Standby Power			$\leq$ 0.5W		
Overall Power(nominal power)	TBD	250W	TBD	400W	500W
Dimension L*H*D	1302*791*98mm	1521*915*98mm	1638*982*98mm	1762*1034*100mm	1988*1178*99.6mm
Dimension (package) L*W*H	1458*220*932mm	1697*220*1071mm	1803*243*1160mm	1913*1225*280mm	2211*280*1370mm
Net Weight	32kg	44kg	56kg	60kg	78kg
Gross Weight	40kg	55kg	68kg	78kg	105kg
Thickness of machine and wall mount	144mm (9060A)	144mm (9060A)	144mm (9060A)	146mm (9060A)	145.6mm (9060A)
Wall-hanging Screw Spec			M8*25mm		
VESA	400*400mm	600*400mm	600*400mm	800*400mm	800*600mm



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