

Bee5S Smart classroom package

Classroom Multi camera and Audio Capture ,Mix,Record,Stream,Control
 Multi-Camera Tracking ,Auto Switching,Smart management
 Close up view capture for teacher and students
 Fullview capture for teacher and students
 Blackboard writing AI capture
 IFPD and teaching PPT seamless capture
 Auto switching base on position change during teaching



Bee5S Package Including the following components

- 1:Media processor :Bee5S
- 2: Dual lens camera for teacher -HD595C-T
- 3: Dual Lens camera for students-HD595C-S
- 4: Ceiling microphone array -ACM700
- 5: Desktop controller -CLX4
- 6: Visual controller-DCS210

Muti Camera
Capture

Mix

Direct

Recording

USB streaming

IP Streaming

Backup&Control

Bee5S Package use for application as follow
 Education smart classroom
 Lecture Capture
 Video session live streaming
 Education content record and stream

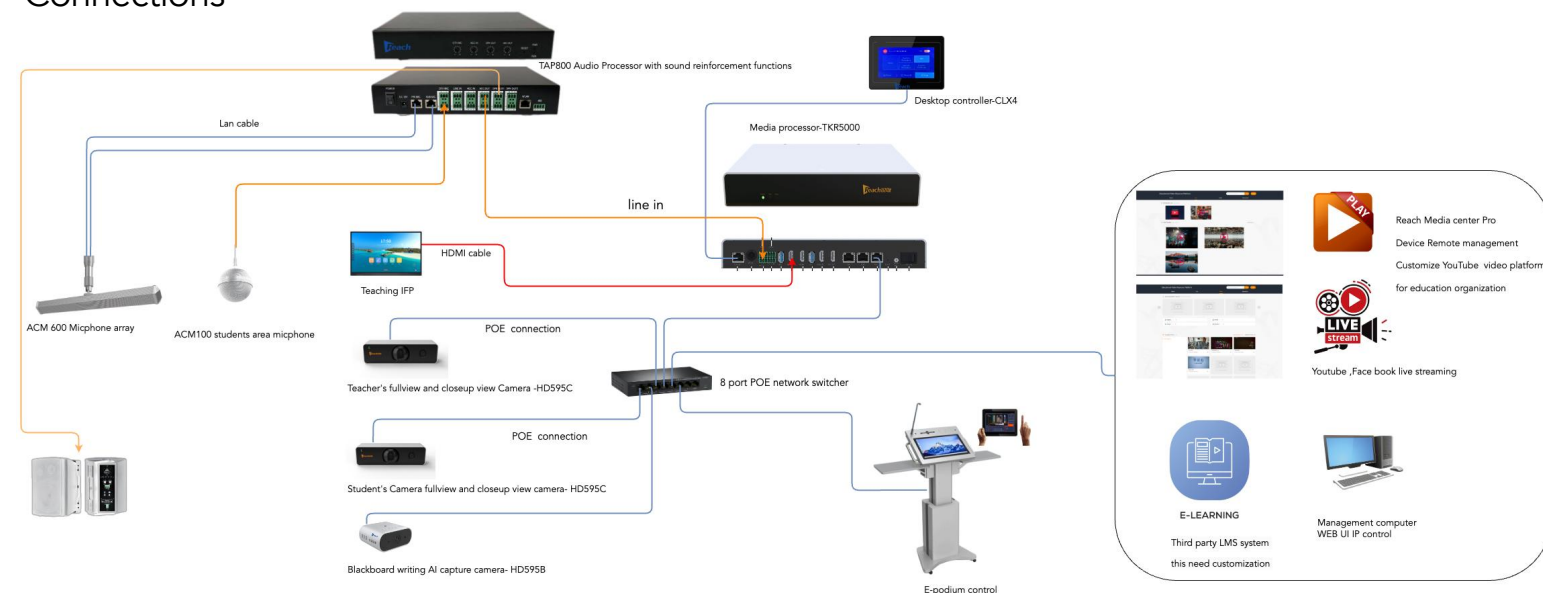
Bee5S media processor main functions



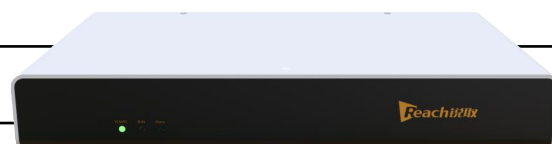
Supports synchronized capture, encoding, and recording of 6 video streams (4 network video signals RTSP IN + 2 HDMI signals).

- Recording files are in standard MP4 format, supporting high and low bit rate recording in cinema mode.
- Equipped with 1TB of internal storage memory.
- Recorded video files can be saved to the local hard drive or uploaded to third-party FTP servers or Reach's Media Center Pro video resource management platform.
- Video recording resolution, bit rate, and frame rate can be adjusted according to different network environments, supporting 6 levels of resolution settings, with a maximum resolution of 1920*1080 and a minimum resolution of 320*180.
- Depending on network bandwidth, different parameter settings can be chosen, supporting 8 levels of bit rate settings, with a maximum bit rate of 3600MB/h and a minimum bit rate of 32MB/h.
- Remote viewing, searching, modifying notes, downloading, and deleting recorded files are possible.
- Multiple control methods: management and control can be done through B/S browser UI and DCS210 C/S client, Reach Media Center Pro platform, CL-X4 control panel, RS232 third-party serial port central control, and network central control commands.
- Supports RTMP and RTSP for live streaming and on-demand playback, suitable for large-scale internet live streaming and computers.
- Compatible with AI cameras, teaching behavior analysis boxes, and Reach Media Center Pro platform for classroom attendance functions and student-teacher behavior analysis.
- Rich and powerful educational video production control strategies, capturing and recording close-up shots of the teacher, full shots of the teacher, full shots of students, close-up shots of students, computer screens, and electronic whiteboards, with intelligent automatic production switching according to changes in teaching scenarios.
- Supports various audio inputs and outputs, including XLR mic in, 3.5mm line in, and phoenix line in.

Connections



Video input	4 Channels IP stream(RTSP video in ,onvif protocol) IN + 2 HDMI IN, up to 6 video sources,Included lecturer close-up, podium panorama, listener close-up, listener panorama, presentation from PC and electronic white board	
Video Input Resolution	IP Stream IN: 1280*720, 1920*1080 HDMI IN: 1280*720P@30/60, 1440*900P@30/60, 1920*1080P@30/60, 1920*1080I@50/60, 2560×1440P@30, 3840*2160P@30	
Video output	2*HDMI out, 1*UVC, H.264 Media Stream	
Video Output Resolution	HDMI OUT: 1080P@50@60 UVC OUT: MAX support 720P (Windows 10 OS and USB3.0 port)	
Video encoding	Codec	H.264
	Bitrate	300 kbps to 16 Mb/s
	Resolution:	User selectable up to 1920 × 1080,
Video switching	During live streaming and re cording via director software DCS210, web UI, 3 rd party control system	
Streaming protocol	TS, RTSP, UDP, RTMP,RTMPS (support publish to youtube, twitter, facebook)	
Recording	Real time, Time-Lapse	
Video layout	PIP, POP, Single video, Size by size and up to 10 groups of layout	
Encoded programs	Max 7 simultaneous 1080p programs	
Audio encoding	AAC (sampling @ 48 kHz),Audio Bitrate 128Kbps, XLR ,3.5mm line in ,Phoenix line in	
Security	One-button lock screen	
	User management and Password login	
Network	1 ×1000 Ethernet port (RJ45)	
Storage	Hard disk	In default 1TB , 2TB can be selectable
	USB 3.0	Automatic or manual copy via USB 3.0 ports
Network Storage	SFTP, FTP,SCP, Dropbox(optional)	
Recording formats	Mp4	
Control	WEB UI , desktop controller CLX4, Third party control system via RS232 API, Telnet Control,Android APP ,Windows OS C/S	
PTZ control camera	Pan/Tilt/Zoom over RS485 API and over network Telnet API	
Dimensions (W x D x H)	275mm*164mm*40mm (L*W*H)	
Power Consumption	72 W	



Main features :

- Dual-Lens Integration
- Ultra-High Definition Close-Up
- Smart Teaching Tracking
- Micro-Pan-Tilt
- Built-in Microphone



The built-in array microphone supports omni-directional sound pickup within an 8-meter range.

- Multi-Interface Output
- Supports a variety of video output interfaces,including PoE,USB 3.0
- PoE and PoC One-Cable Solution
- Supports both POC(Power Over Cable)and POE(Power Over Ethernet)
- Built-in Directional Control,Network or USB interfaces.

Camera Spec of Close-up Camera Sensor

- Educational Camera: 1/2.7", CMOS, Effective pixel:8.29Megapixels
- Scanning Mode :Progressive
- Type of Lens Mount :M12
- Student Close -up Lens f=7.37mm, Horizontal FOV: 43°
- Teacher Close -up Lens f=12.49mm, Horizontal FOV: 26°
- Digital Zoom :2×
- Minimum Illumination :0.5 Lux
- Shutter: 1/30s ~ 1/10000s
- White Balance: Auto, Indoor, Outdoor, One Push, Manual, VAR
- Digital Noise Reduction: 2D&3D Digital Noise Reduction
- Backlight Compensation :Support
- Pan Angle :±40°
- Tilt Angle :+5°~ -30°
- Maximum Rotation Speed
- Student Camera:Pan Speed 60° /s,Tilt Speed 30° /s
- Teacher Camera:Pan Speed 30° /s,Tilt Speed 30° /s
- Image Flip: Support
- Image Freeze :Support
- Preset Position :255
- Preset Accuracy :0.5°

Camera Spec of Panoramic Camera Sensor

- Educational Camera:1/2.7", CMOS, Effective pixel:4.93Megapixels
- Scanning Mode Progressive
- Type of Lens Mount :M12
- Student Panoramic lens f=2.2mm, Horizontal FOV: 110°
- Teacher Panoramic lens f=7.37mm, Horizontal FOV: 43°
- Minimum Illumination:0.5 Lux;
- 0.5 Lux (Teacher Panoramic Camera) ;
- Shutter 1/30s ~ 1/10000s
- White Balance :Auto, Indoor, Outdoor, One Push, Manual, VAR
- Digital Noise Reduction :2D&3D Digital Noise Reduction
- Backlight Compensation: Support
- Tilt Angle: +0°~ -24°
- Image Flip: Support
- Image Freeze :Support