Tracking, Recording and Streaming Server
Model: Bee9 Plus (V3)

Bee9 Plus is the latest product of Reach, it supports MAX 6 video sources, include Lecturer close-up, Podium panorama, Listener close-up, Listener panorama, Presentation from PC and electronic white board. It integrated auto-tracking, auto-switch, recording and streaming features, can auto tracking personal movement, detect the signal source change and auto-switch the image between all signals.

Bee9 Plus can work with video conference system, to achieve distance Learning, it specialized for classroom's recording solution in education market.

Features:

☐ Multiple video sources supported, up to 6 video sources

Include lecturer close-up, podium panorama, listener close-up, Listener panorama, presentation from PC and electronic white board, totally 6 video sources.

☐ Advanced auto tracking technology

With image recognition and multiple frames comparison technology, system can work out the position and detect lecturer's motion, then can easily auto tracking lecturer's movement without wear any infrared device.

Note: Listener close-up is optional video signal for Auto-tracking function, as there are some requirements for the classroom environment.

☐ Support 4K panoramic capture camera

Bee9 Plus can support 4K-HD panoramic capture camera HD953LWAP, it's more flexible to meet different customer needs.

☐ Exclusive video signal auto-switching technology

Switching between different video signals, recording teaching activities naturally.

☐ USB copy file

Bee9 Plus with USB 3.0 port, can support copy the recorded movie mode high quality file to

mobile storage device via USB interface.

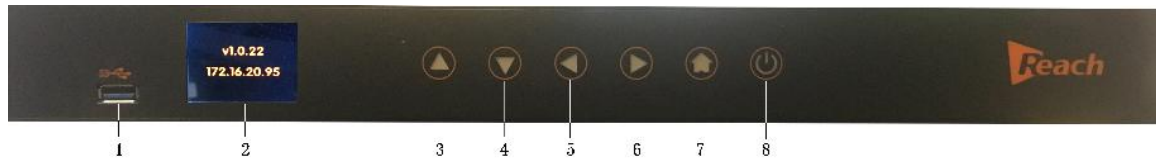☐ Support Movie mode and Resource mode

Bee9 Plus recorded file is a standard MP4 format and supports simultaneous recording of high and low bit rate movie mode and resource mode file.

High bit rate files are used for high-quality file saving, and low bit rate files are used for live streaming and video on-demand in mobile devices or low-bandwidth environments.
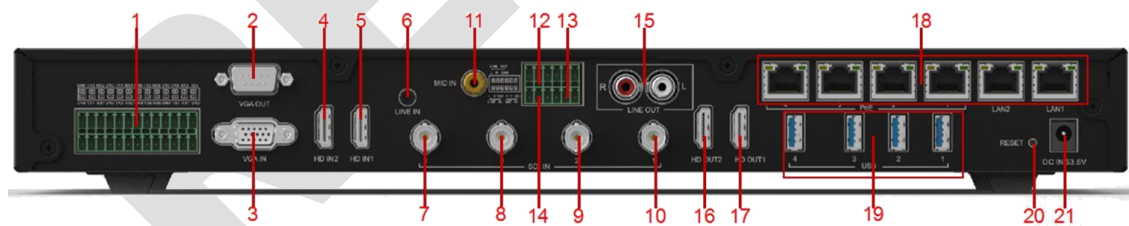
Specifications:

Model	Bee9 Plus
Operation System	Linux OS
Video Input	Multiple video sources supported, up to 5 video sources
Supported Video Input Resolution	HD signal: 720p@50@60, 1080p@25@30
	HDMI signal: 1024*768, 1280*720, 1366*768, 1400*1050, 1440*900, 1920*1080
	VGA signal (analog): 1024*768, 1280*720, 1366*768, 1440*900
Video Output	2*HDMI out
Supported Video Output Resolution	HDMI out: 720p@50@60, 1080p@50@60
	VGA out: support 1080p at maximum
	Movie mode resolution: 720*480, 704*576, 800*600, 1024*576, 1024*768, 1280*720, 1920*1080
Video Encoding	H.264 High Profile
Frame Rate	25fps, 30fps
Recording File Size	300MB/h, 500MB/h, 600MB/h, 800MB/h, 1000MB/h, 1500MB/h, 2000MB/h
Audio Encoding	AAC-LC
Audio Bit Rate	128Kbps
Audio Sample Rate	48KHz
Tracking way	Build-in auxiliary position camera in 4K-HD panoramic capture camera
File Format	Mp4, Movie mode & Resource mode
Network Port	6* RJ45 (include 4 POE port)
Language	English, Chinese
Storage	1TB/2TB/4TB/8TB(optional), support dual hard disk
Power	DC 53.5V
Dimensions	430mm*335mm*44.5mm (L*W*H)
Weight	5.0Kg
Relative Humidity	10% to 90%
Working Temperature	-10°C to 50°C
Storage Temperature	-20°C to 60°C

Front Panel:

No.	Component	Statement
1	USB Port	USB3.0, for download the latest file
2	LCD	Display system info, IP address, status, etc.
3	Up button	Reserved
4	Down button	Reserved
5	Left button	Reserved
6	Right button	Reserved
7	Main interface button	Reserved
8	Power button	Light touch to display IP address

Rear Panel:

No.	Connector	Statement
1	Control	Control port
2	VGA OUT	VGA output
3	VGA IN	VGA input
4	HD IN 2	HDMI input, for PC signal input
5	HD IN 1	HDMI input, for Electronic White Board signal input
6	LINE IN	Line in (3.5mm)
7	3G-SDI IN 4	3G-SDI input, Reserved if work with HD953LWP
8	3G-SDI IN 3	3G-SDI input, Reserved if work with HD953LWP

9	3G-SDI IN 2	3G-SDI input, Reserved if work with HD953LWP
10	3G-SDI IN 1	3G-SDI input, Reserved if work with HD953LWP
11	MIC IN	MIC in (RCA)
12	LINE OUT	Audio output (Phoenix)
13	MIC IN	MIC in (Phoenix)
14	LINE IN	Line in (Phoenix)
15	LINE OUT	Audio output (RCA)
16	HD OUT 2	HDMI output
17	HD OUT 1	HDMI output
18	4 POE/LAN 2/LAN 1	RJ45 port for network connection and POE power support (optional)
19	4 USB	USB port, can connected with Keyboard, mouse and so on
20	RESET	Reset system
21	Power input	DC power input

4K Panoramic Camera

（Model: HD953LWP）

REACH HD953LWP is a 4K-HD panoramic camera, it can support 3840*2160@30 capture at maximum, with strong image resolution. With dual stream function, can stream close view and panoramic view at the same time.

Features：

☐ 4K Ultra-clear

1/1.8-inch Progressive Scan CMOS Sensor, image Resolution up to 3840 × 2160.

☐ HD video output

Max support 1080P@30 HD video output.

☐ With dual stream function

Can stream close view and panoramic view at the same time.

☐ H.264 / H.265

Support H.264 / H.265 encoding, ultra-clear 4K/30fps ultra-low bandwidth transmission, delay as low as 200ms.

Specifications：

Image sensor	1/1.8" Progressive Scan CMOS
CMOS MAX resolution	3840 × 2160
Effective pixels	800W

Video format	4K@30(3840*2160) , 1080P@30, 720P@30
Video output resolution	Default 1080P@30
Variable gain	Digital gain -30dB-23.9dB
Minimum illumination	Multicolor: 0.001 Lux @(F1.2,AGC ON)
ISO mode	ISO100、ISO200、ISO400、ISO800、ISO1600、ISO3200
Local length	Lecturer camera: 6mm, Listener camera: 4mm
Video encoding	H.264/H.265
Bit rate	256kbps ~ 20Mbps adjustable
Auto tracking	Support, build-in auxiliary positioning feature
Video out	RJ45 port, with PoE, MAX 1080P@30
Power input	DC 12V, 1A
Power dissipation	9W Max
Working temperature	-10 ~ 50°
Working humidity	<85%, No condensation

Rear Panel:

No.	Connector	Statement
1	POE	RJ45 POE network port
2	DC 12V	DC 12V power in
3	Reset	Reset button
4	Pilot light	Power pilot light
5	Audio IN	Audio IN, Reserved port
6	Audio OUT	Audio OUT, Reserved port

REACH Control Panel（Optional）

(Model: CL-X8A)

Reach Control Panel CL-X8A, is the height Integrated control terminal of Reach based on its own product demand and market trends, CL-X8A integrates HD video, audio, TF card, USB and other input and output interfaces, default comes with Android Operation System, system integration remote interactive control, multimedia central control and local background control.

CL-X8A can works with Reach Record and Streaming Server, Reach Central Control System and Reach Video Conference System.

Features:

☐ System power on/off control

☐ Multi-media control function, support video sources switch.

☐ Recording operation, include start and stop recording operation.

☐ Interactive teaching management, can call, hang up and switching Remote interactive teaching.

☐ Support HDMI output

☐ Support external TF card

Specifications:

Model	CL-X8A
Operation System	Android
CPU	4 core 1.8Ghz
Storage Capacity	32GB
Memory Capacity	2GB
Storage Type	SSD
Screen Size	7 inches
Display Resolution	1280×800

Interface Type:

No.	Interface	Statement
1	Power ON / OFF	Long press this button to Power ON / OFF
2	Volume adjustment	Audio Volume adjustment
3, 4, 7	USB port	External USB2.0 device (USB disk, keyboard, mouse, etc.)
5	3.5 audio output	External 3.5 audio output interface
6	TF card input port	For TF card
8	HDMI output	HD signal output
9	Network port	RJ45
10	Power connector	12V power input