TOA

LE'CAM'BIO

## INTEGRATED AUDIO COLLABORATION SYSTEM
w/AUTO PTZ CONTROL

LENUBIO+KD-CAMUSB*

*KD purchase(s) must be made direct with Key Digital

LE'CAM'BIO
Integrated Audio Collaboration System with DSP + KD-CAMUSB

LE'CAM'BIO consists of our LENUBIO audio collaboration system, along with Key Digital's KD-CAMUSB camera & KD-CX800 controller, to improve conference focus, while eliminating operational distractions. LENUBIO LED indicators identify and track the presenter's location, in addition to showing mute status, and microphone gain level. The KD-CX800 uses LENUBIO's real-time, beam steering technology, to automate the KD-CAMUSB's movement to focus on the speaker. Equipment set-up and control is available for both products via iPad with either a Crestron, Extron, or AMX controller module for the LENUBIO, and the Compass Control Pro app for the KD-CAMUSB. The user only needs to connect a single, USB connection via a compatible host device to experience conferencing to the next level!
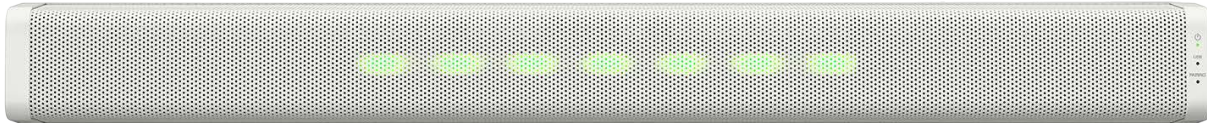

REAL-TIME BEAM STEERING ILLUMINATED

Seven LED indicators behind the front grille illuminate to visually track presenter location, display microphone gain level, and show microphone mute status.

GUI FOR EASY SETUP AND CONTROL

The browser interface is available to make adjustments to parameter settings such as mixer volume controls, audio processing, LED indicator management, control I/O, presets, and voice tracking field adjustments for coverage within a 20 foot range.

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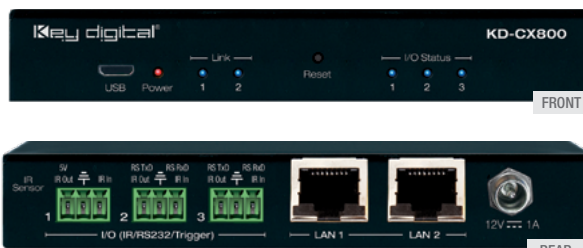
USB 2.0 PAN-TILT-ZOOM CAMERA

Professional USB camera ideal for Video Conferencing and Capture applications in Huddle Spaces, Conference Rooms, Board Rooms, Lecture Halls, and more
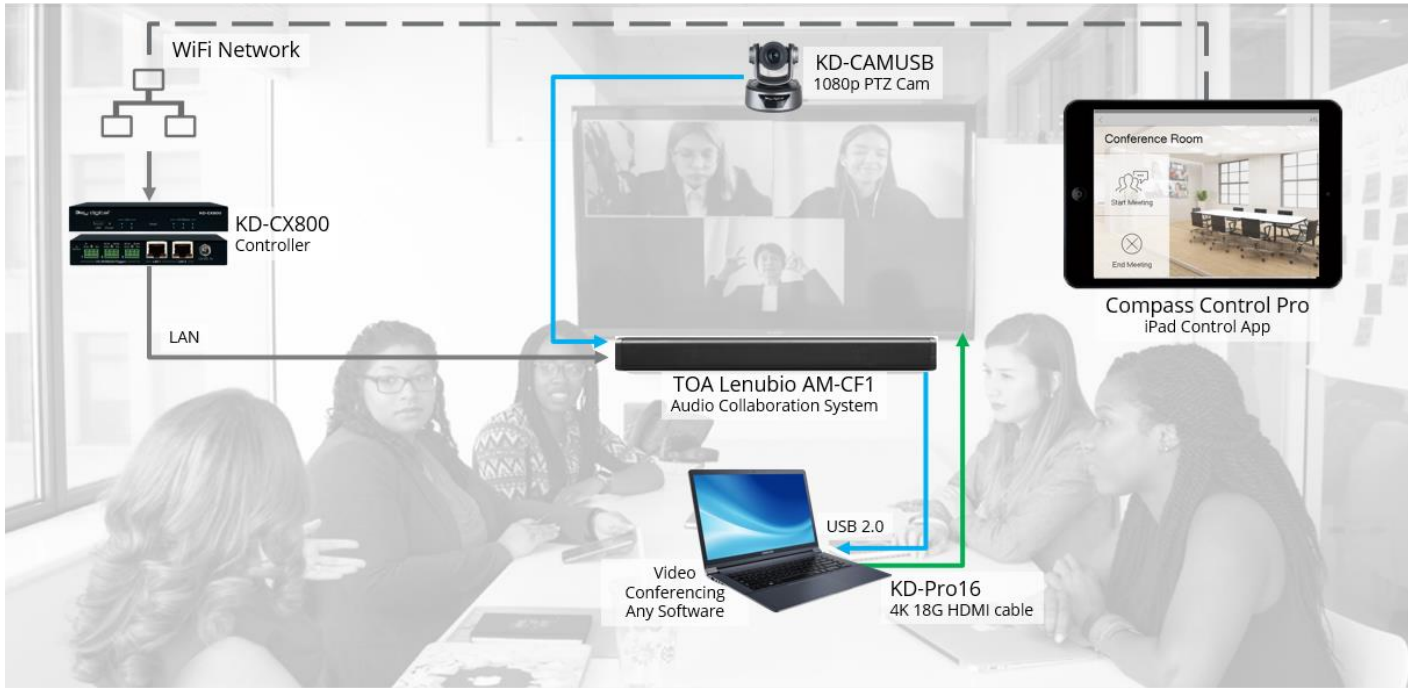
CONTROL SYSTEM SUPPORT

Compass Control® Pro ready. Fully controllable by all IR, and RS-232 supported control systems via open API.

LE'CAM'BIO SYSTEM DIAGRAM

WiFi Network

KD-CAMUSB
1080p PTZ Cam

KD-CX800
Controller

LAN

Compass Control Pro
iPad Control App

TOA Lenubio AM-CF1
Audio Collaboration System

USB 2.0

Video
Conferencing
Any Software

KD-Pro16
4K 18G HDMI cable

Kit 1
≤ 5m / 16ft USB & HDMI cable length from Display

View our 'Step-By-Step Guide'
to see all kit suggestions

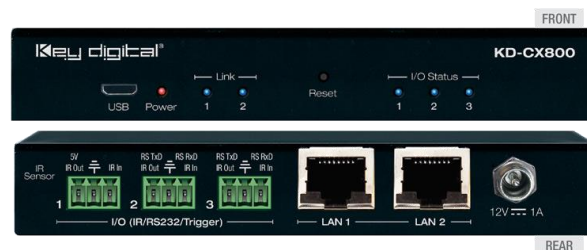# → TOA Lenubio AM-CF1
Web Conferencing Audio System
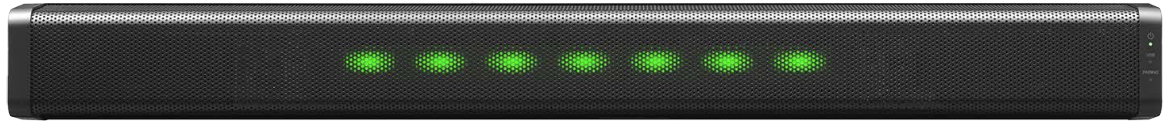
→ KD-CAMUSB
1080p PTZ Conferencing Camera

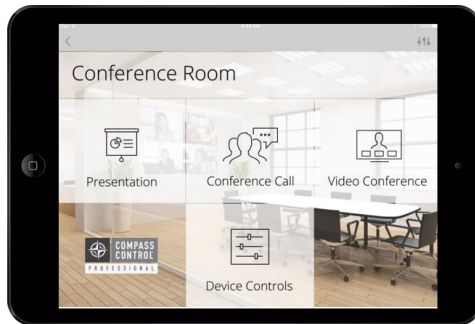*KD purchase(s) must be made direct with Key Digital

→ KD-CX800
Master Controller

*KD purchase(s) must be made direct with Key Digital

Install Hardware

1

→ iPad with
Compass Control Pro App

Program System
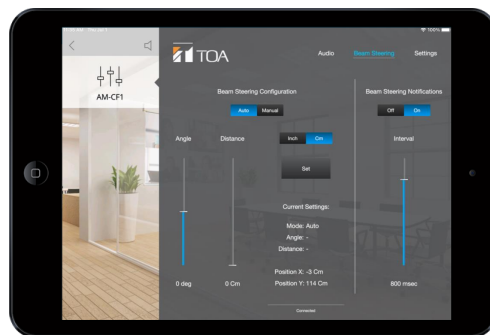
2

→ **Option 1 (Recommended):**
Sub-contract Programmer
https://keydigital.org/compass/installers

COMPASS CONTROL® PRO
CERTIFIED PROGRAMMERS

Load Compass project to server, download to iPad, and control

The Compass iPad must be powered on and in the Compass app to actively listen for beam steering status updates and control the KD-CamUSB
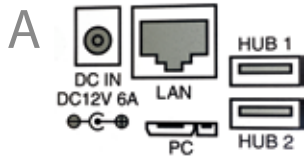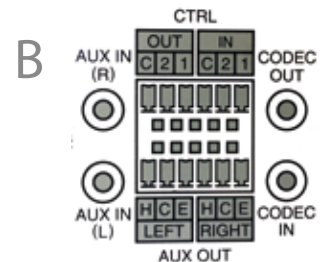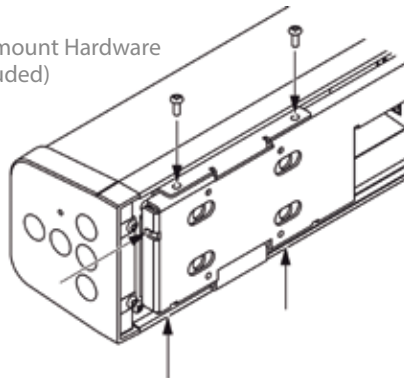
LENUBIO

LENUBIO Specifications

	AM-CF1B (Black)	AM-CF1W (White)
Power Source	12 V DC (supplied from the specified AC adapter) or 52 V DC (supplied rom the specified PoE extender)	
Current Consumption	Under 3.5 A	
Inputs	USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port Bluetooth: 2 channels, Codec: 1 channel, RCA pin jack, −10 dB*1, 10 kΩ, unbalanced type AUX: 2 channels, RCA pin jack, −10 dB*1, 10 kΩ, unbalanced type	
Outputs	USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port Bluetooth: 2 channels Codec: 1 channel, RCA pin jack, −10 dB*1, 600 Ω, unbalanced type AUX: 2 channels, removable terminal block (6 pins), 4 dB*2, 600 Ω, balanced (electronically-balanced) type Internal speaker: 2-way × 2 (woofer × 2, tweeter × 1)	
Control Inputs	2 inputs, removable terminal block (6 pins), no-voltage make contact	
Control Outputs	2 outputs, removable terminal block (6 pins), no-voltage make contact, relay contact output	
Network I/F	10BASE-T/100BASE-TX, RJ-45	
Array Microphone	Unidirectional electret condenser type	
Frequency Characteristics	20 Hz – 20 kHz (AUX IN – AUX OUT)	
Operation Section	Power switch, Bluetooth pairing, Mute, Volume Up/Down	
Indicators	Power (blue/green/orange/red), USB connection (green), Bluetooth (blue), Multifunction (green/red)	
Operating Temperature Range	0 – 40°C	
Operating Humidity Range	90% RH or less (no condensation)	
Finish	Body	Surface-treated aluminium plate, black, 30 % gloss	Surface-treated aluminium plate, white (RAL 9003 equivalent), 30 % gloss
	Punched Net	Surface-treated steel plate, black, 30 % gloss	Surface-treated steel plate, white (RAL 9003 equivalent), 30 % gloss
	Side Cover	ABS resin, black	ABS resin, white
Dimensions	799 (w) x 83.2 (h) x 85.5 (d) mm (31.46" x 3.28" x 3.37")	
Weight	4.6 kg (10.14 lb)	

CONNECTIONS

A

DC IN
DC12V 6A
LAN
PC
HUB 1
HUB 2

Wallmount Hardware
(included)

B

CTRL
AUX IN (R)
OUT C 2 1
IN C 2 1
CODEC OUT
AUX IN (L)
H C E LEFT
H C E RIGHT
CODEC IN
AUX OUT

KD-CAMUSB

PTZ USB 2.0 1080p Camera, IR/RS-232/Visca Controllable

KEY FEATURES

› **USB 2.0 Pan-Tilt-Zoom Camera**: Professional USB camera ideal for Video Conferencing and Capture applications in Huddle Spaces, Conference Rooms, Board Rooms, Lecture Halls, and more.

› **Compatible Operating Systems**: Generic USB Video Class Driver for effortless use on Windows 7, Windows 10, Mac OS X, and Linux machines

› **Video Conference Software Support**: Delivers professional PTZ features for popular video conference software such as Skype®, GoToMeeting®, Microsoft Teams®, Zoom™, RingCentral®, Google® Hangouts, and more

› **Soft Conference Enabling System**: Use with Key Digital Presentation Solutions family including KD-UPS52U, KD-X100MRx, KD-PS42, and KD-X40MRx to add USB plug-in wall plates, USB/KVM routing and extension, Digital Video switching, integration with professional audio visual systems (use external microphones as KD-CAMUSB does not feature built-in mic), TCP/IP and KD-App ready control.

› **Multiple Mounting Options**: Wall, and ceiling mounting hardware included. May also be table surface mounted.

› **Recall & Store Position Presets**: Up to 255 presets may be created, with up to 12 presets accessed via IR remote control on Home, Privacy, and numeric buttons.

› **Auto Focus**: Fast and accurate auto focus via leading auto focus algorithm

› **Video Resolutions**: From 320x240p @ 30fps up to 1920x1080p @ 30fps. Adjustable via Windows camera viewer and conferencing software camera settings panels

› **Pan-Tilt-Zoom**: Pan = ±170º. Tilt = -30º to +90º. Zoom = 10x

› **User-Friendly IR Remote**: Provides intuitive and ergonomic control

› **RS-232**: Bi-Directional control to/from KD-CAMUSB or via Key Digital Presentation Solutions Extender & Switcher units

› **VISCA Controllable**: Responds to VISCA protocol for control by PTZ camera control consoles. Supports addressing for multi-camera systems.

› **Control System Support**: Compass Control® Pro ready. Fully controllable by all RS supported control systems. TCP/IP controllable when integrated with supported Key Digital Presentation Solutions Extenders and Switchers.

› **KD-App Ready**: When integrated with supported Key Digital Presentation Solutions Extenders and Switchers including KD-UPS52U, KD-X100MRx, KD-PS42, and KD-X40MRx. Pre-built GUI populates offering PTZ controls as source selection and display/projector controls via CEC Manager™.

SPECIFICATIONS

» Regulation: CE, RoHS, WEEE, EAC
» Enclosure: Silver Plastic

KD-CX800

Control Interface with IR and RS-232 Over IP Routing
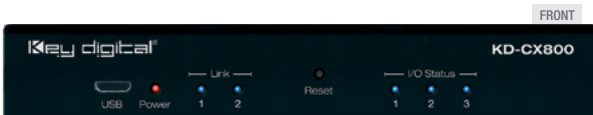
Specifications

» Power Supply: KD-PS12V1ASC, 12V/1A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
» Regulation: CE, RoHS, WEEE
» Enclosure: Black Metal
» Product Dimensions: 5.06" x 3.08" x 0.78"
» Packaging Dimensions: 5.78" x 4.01" x 3.46"
» Product Weight: 0.5 lb
» Shipping Weight: 1.5 lb

Key Features

KD-CX800 is very flexible, with four supported modes of use:

› **Mode 1: Control gateway for Enterprise AV Over IP system**

› **Mode 2: Compass Control® Master Controller**

› **Mode 3: Third-Party Control via KeyCode Open API**

› **Mode 4: Control Extension via IP**