

 frontrow™

 CLEARASOUND AV
HEAR • SEE • CONNECT

UNITY
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Instruct. Announce. Alert.

The first device of its kind to unify classroom audio, instructional technology, campus communication, and emergency notification and response. UNITY™ is the ed-tech device that everyone can agree on — making the work of admins, IT, and teachers more efficient and effective.

#UNITY

UNITY



Upgrade at anytime

The removable faceplate allows for in-field upgrade to UNITY Campus in seconds!



UNITY Campus

Key Features



Intercom
Need something?
Call the office.



Ready, set...action!
Customizable buttons to control instructional technology (e.g. on/off displays, change camera presets, etc.)



Bluetooth®
Play audio from your phone, tablet, or PC



Classroom control
Controlled directly from your interactive display



Security lock-down
Lock-down procedure with a single command from anywhere



Get help
Initiate an Alert to administrators



Remote management
Remotely deploy scheduled firmware updates

All together in UNITY

Unite your classrooms, campus, and school district.
Unite your team.



Powered by FrontRow ELEVATE

Decades of research prove the benefits of classroom audio — improvement in phonemic development, comprehension, student behavior, and engagement. UNITY is powered by ELEVATE, the latest technology for highly intelligible classroom audio. When paired with other Boxlight solutions, UNITY unlocks unparalleled student engagement for in-person and online learners.



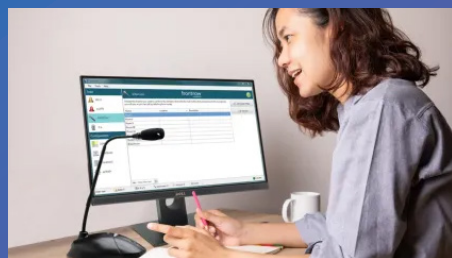
Be heard as you like

With the ELEVATE-powered Action! Teacher Microphone, teachers can speak normally, eliminating vocal fatigue, and control instructional devices anywhere in the room. FrontRow's portfolio of built-in smart technologies — OptiVoice+, PrivaSee, Solo, PrioriTech+, and Adapto+ — ensures teachers are heard when they want.



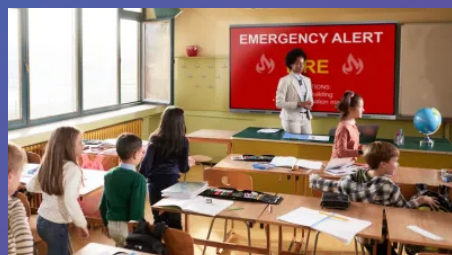
Effortless control

Create a seamless flow of instruction with UNITY. Switch effortlessly between tasks, lessons, and devices with control buttons on the teacher's microphone or UNITY itself. For classrooms with Boxlight interactive panels, MyFrontRow app can be used to control the UNITY system and instructional technology in the classroom. Instructors love UNITY's ease of use and the next-level capabilities to empower their instruction.



Your Emergency Operations Plan

FrontRow Conductor is a powerful platform for campus-wide communications and networked device management. A simple button push on the FrontRow Conductor Admin Station or FrontRow Conductor app initiates an alert and automated actions per your emergency operations plan.



Attention!

Boxlight offers Attention!, an unprecedented capability for simultaneous audio and display messaging and alerting. Attention! is a native integration between FrontRow Conductor, CleverLive, Mimio and Clevertouch displays, and networked FrontRow audio system, including UNITY Campus.

Fully capable, expandable and scaleable

More control and audio inputs and outputs than any other classroom audio system. No other solution does more!



2 powerful new ports
StreamLine and ZipLine for future expansion



Power from anywhere
Built-in PowerLine and connect up to 100ft away



Power Over Ethernet
The only system to support full time or backup PoE+ or PoE++



Audio
Bring in all your audio sources. Send out a balanced mix.

UNITY Base Unit Specifications

Physical Device

Dimensions	45mm tall (1 - 49/64") 175.7mm wide (6 - 59/64") 203.6mm deep w/o faceplate (8 - 1/64") 222.6mm deep w/ faceplate & Knob (8 - 49/64")
Weight	0.760kg / 1.68lbs

Network

Network Support	10/100 Mb/s (auto sensing)
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Amplifier

Power	32W continuous (2 channels x 16W @ 4Ω) Use four(4) - 8 Ohm FrontRow Lay-In or Cut-In Speakers wired in parallel for 32W, for complete classroom coverage. Use two(2) - 8 Ohm FrontRow Lay-In speakers for 16W for smaller rooms.
THD	1kHz, at nominal level (1 watt, 8-ohm load)
Type	Class D
Signal-to-Noise	>84 dB @ 20 Hz to 20 kHz at maximum output (unweighted, with balanced input)

Audio

Speaker Out	Left / Right channel - Phoenix connector
Line Out	1, 3.5 mm line level output (TRS Stereo Unbalanced)
ALD Line Out	1, 3.5 mm line level output (TRS - Mono Unbalanced) with rotary volume control for assistive listening devices (Headworn microphone 1000-00235 with teacher mic recommended for best experience)
USB-C In/Out	1, USB-C bidirectional audio (USB-2.0)
Line In	2, 3.5 mm line level inputs (TRS Stereo Unbalanced)

Control

RS 232	1, RS 232 connection - 500mA - Phoenix connector
Serial Baud Rate	2400 to 115200
GPI	2, General Purpose Inputs - Phoenix connectors
Relay	1, Normally open / Normally closed - Phoenix connector 1, Normally open - Phoenix connector
Alarm Input	1, Alarm input - Phoenix connector
Analog Page Mute	1, Page Override (PGO) - Phoenix connector
IR Output	1, IR out - Phoenix connector

Power

Power Out	1, 24 VDC - Phoenix connector (Trio Speaker Power) 1, 12 VDC (1.5 Amp) - Phoenix connector 1, 12 VDC (0.5 Amp) - Phoenix connector 1, 5 VDC - USB-A connector (For Charging 1 Microphone)
Power In	Fulltime or backup PoE+ Type 2 / Class 4 (25.5W) 802.3at Fulltime or backup PoE++ Type 3 / Class 6 (51W) and Type 4 / Class 8 (71W) (802.3bt) See PoE Chart on next page FrontRow PowerLine - 90W, 48VDC, up to 100ft.

Other Connections

ClassLight	Multi-color LED beacon for paging, intercom, bells, and alerts
Zipline	Future accessory expansion port
StreamLine	Future accessory expansion port

Microphone Receiver

Frequency Response	150hz to 7.5Khz +/-3db
Carrier Frequency	1.9GHz Band (1.92-1.93 GHz US/CAN, 1.88-1.90 GHz UK/EU/AUS)
Number of simultaneous active microphones	4
Number of base stations each mic can register with	1 Base stations per mic
Operating Range	(open field) 250ft (Line of sight)
Maximum number per school	No limit
DECT Standard	6.0/EU selectable
Wireless Communication	ELEVATE™ technology
Operating Territories	US/CAN - EU/UK/AUS, selectable

Bluetooth

Bluetooth Standard	4.1 BR/EDR
Profile	A2DP for high quality stereo audio
Codecs	SBC, MP3, FastStream
Multipoint support	Connect up to 2 devices at once (1 can stream at a time)
Typical range	Up to 18.2m/60ft depending on transmitter
Latency	40ms - 200ms depending on codec and environment

Remote Management

Web Interface	Complete control of all UNITY settings via device IP address access
Control Commands	Remotely trigger soft and hard resets, ClassLight colors, audio levels, mic and Bluetooth pairing, control I/O commands and more
Rollout App	Network device discovery, device data, configuration file updates, firmware updates. Windows 10 or later.

Classroom Control

MyFrontRow App	Available for Boxlight displays, MacOS, Android tablets, iPad, and Windows PC. (see MyFrontRow datasheet).
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Mounting Options

Tower Holder	For UNITY tower (vertical) model, drop-in flexible holder with rubberized grips (Included)
Wall Mount Bracket (Sold Seperate)	Mount on the wall behind an interactive display panel. Articulated spring-hinge arm with 90 degree rotation for easy cable access and management. Dual cable posts for wrapping cables for a clean install.
M6 threaded insert	Bottom of unit. For securing to shelves for theft prevention.
Shelf	Shelf (horizontal model) can be placed directly on a desk or shelf.

Elevate Microphone Specifications

General Spec

Battery Type/Voltage/Amperage	LiPo 3.7V, 650mA
Battery Life (hours) - talk time	8+hrs US / 7+ EU/AUS
Recharge Time	3.5 hrs
RF Power (dBm)	19dbm peak (teacher only), 6dbm average - US/CAN, 24/10 in UK/EU/AUS
Weight	44.3g / 1.5oz (teacher) 89.7g / 3.16oz (student)
Size (HxWxD)	68 x 36 x 22mm / 2.7 x 1.4 x 0.9 inches (teacher) 118 x 36 x 22mm / 4.6 x 1.4 x 0.9 inches (student)
Headset in	3.5mm TRRS (T=left, R1=Right, R2=Mic, S=Gnd), use with FrontRow headworn mic (1000-00235) or plug in an audio source
Wireless Communication	ELEVATE™
Operating Territories	US/CAN - EU/UK/AUS, selectable

FlipCharger

Size (HxWxD)	127 x 71 x 38 mm / 5 x 2.8 x 1.5 in
Weight	110g/3.9oz
Power Supply	5.9V / 700mA
Mounting Options	Wall Mount (frame included), Desktop

Statement

Size and weight vary by configuration and manufacturing process, please refer to the actual product. The product images are for illustrative purposes only and may be slightly different in appearance, color, size, etc. from the actual product. The description, illustrations, etc. in this document may be subject to change in accordance with the latest product specifications and performance. Should the above-mentioned change in the document become necessary, the document may be updated without written notice.

Power Over Ethernet Compatibility

PoE+

Standard	802.3at
Type	2
Class	4
Power Sent	30W
Power at Endpoint	25.5W
Cabling	Cat5e
UNITY Support	Maximum amp power may be limited to 25.5W (same as any device running PoE+) ClassLight not supported. Supports fulltime or backup power.

PoE++

Standard	802.3bt
Type	3
Class	6
Power Sent	60W
Power at Endpoint	51W
Cabling	Copper Cat6a or better recommended. Cable compatibility test kits available from Boxlight.
UNITY Support	All UNITY features supported, including ClassLight. Recommended for new construction or campus communication with ClassLight. Supports fulltime or backup power.

PoE++

Standard	802.3bt
Type	4
Class	8
Power Sent	90W
Power at Endpoint	71W
Cabling	Copper Cat6a or better recommended. Cable compatibility test kits available from Boxlight.
UNITY Support	All UNITY features, including ClassLight, plus future accessories.

PoE Power Draw

	Idle (powered on but no audio)	Typical (normal volume settings and usage)	Max (inputs and outputs at full power with active signal)
UNITY only (no ClassLight or powered accessories)	8W	25W	42W
UNITY + ClassLight	8-9W (ClassLight off)	32W	49W

UNITY Options

1000-00284	UNITY Essentials Kit (V)		FrontRow UNITY classroom audio system. Includes UNITY with vertical controls, Flex Stand, Action! Mic, and PowerLine + 10ft Cat5e Cable.
1000-00285	UNITY Essentials Kit (H)		FrontRow UNITY classroom audio system. Includes UNITY with horizontal controls, Action! Mic, and PowerLine + 10ft Cat5e Cable.
1000-00286	UNITY Complete Kit (V)		FrontRow UNITY classroom audio system. Includes UNITY with vertical controls, Flex Stand, Action! Mic, Bravo! mic, FlipCharger, Headworn Mic + Belt Clip, and PowerLine + 10ft Cat5e Cable.
1000-00287	UNITY Complete Kit (H)		FrontRow UNITY classroom audio system. Includes UNITY with horizontal controls, Action! Mic, Bravo! mic, FlipCharger, Headworn Mic + Belt Clip, and PowerLine + 10ft Cat5e Cable.
1000-00288	UNITY Campus Essentials Kit (V)		FrontRow UNITY classroom audio and campus communication system. Includes UNITY with vertical controls, Flex Stand, Action! Mic, ClassLight + 50ft Cat5e Cable, and PowerLine + 10ft Cat5e Cable.
1000-00289	UNITY Campus Essentials Kit (H)		FrontRow UNITY classroom audio and campus communication system. Includes UNITY with horizontal controls, Action! Mic, ClassLight + 50ft Cat5e Cable, and PowerLine + 10ft Cat5e Cable.
1000-00290	UNITY Campus Complete Kit (V)		FrontRow UNITY classroom audio and campus communication system. Includes UNITY with vertical controls, Flex Stand, Action! Mic, Bravo! Mic, FlipCharger, Headworn Mic + Belt Clip, ClassLight + 50ft Cat5e Cable, and PowerLine + 10ft Cat5e Cable.
1000-00291	UNITY Campus Complete Kit (H)		FrontRow UNITY classroom audio and campus communication system. Includes UNITY with horizontal controls, Action! Mic, Bravo! Mic, FlipCharger, Headworn Mic + Belt Clip, ClassLight + 50ft Cat5e Cable, and PowerLine + 10ft Cat5e Cable.
1000-00298	UNITY Campus Upgrade (V)		Upgrade from UNITY to UNITY Campus, providing support for Conductor (Bells, Paging, Intercom, Alerts). Includes faceplate with vertical controls and ClassLight with 50ft plenum Cat5e cable.
1000-00299	UNITY Campus Upgrade (H)		Upgrade from UNITY to UNITY Campus, providing support for Conductor (Bells, Paging, Intercom, Alerts). Includes faceplate with horizontal controls and ClassLight with 50ft plenum Cat5e cable.

All kits include 4m USB-C cable, USB-C to USB-A adapter, and mic charge USB cable.