

BOSE

PROFESSIONAL



EDUCATION, AMPLIFIED

HOW AUDIO-ENHANCED CAMPUSES ATTRACT,
ENGAGE, AND RETAIN STUDENTS



IMPROVING THE ON-CAMPUS EXPERIENCE



A NEW ERA IN EDUCATION

Connectivity is in demand and on the rise. The Internet of Things (IoT) is expanding at breakneck speed — from 27 billion connected devices worldwide in 2017 to 73 billion in 2025, affecting every area of life.¹ Colleges and universities were some of the first to feel the effects of the digital revolution — well before the term “IoT” was even invented — with the internet transforming distance education from a side project at some institutions to a core offering at many.

It’s clear that higher-education institutions face significant challenges when it comes to on-campus enrollment. Today, of students taking only distance education courses, almost half are taking *only* distance courses.² Powered by unprecedented connectivity and other innovations — such as rapidly expanding 5G networks and advancements in augmented reality — these trends are likely to increase, continuing to dramatically transform the landscape of education in the modern world.

But in our age of unprecedented connection — and distraction — an on-campus education offers something increasingly rare: time and space devoted to true community, connection, and focus. A place to grow.

THE HARDEST TEST FOR AUDIO

In this context, clear sound plays a critical role — keeping faculty happy and keeping students engaged. Equipped with audio solutions from Bose Professional, AVI Systems designers create tailored sound systems that deliver the full value of the on-campus experience — from lecture halls and multipurpose spaces to performing arts centers and athletics complexes.

¹ “8 in 2018: The top transformative technologies to watch this year,” IHS Markit, 2018.

² “Grade Increase: Tracking Distance Education in The United States,” Seaman, Allen, Seaman, 2018



Clear audio serves students

- Ensures students hear the instructor and enriches experiences inside and outside the lecture hall
- Allows for clear note-taking and better lecture hall engagement
- Supports student clubs and activity groups with audio systems that are intuitive and reliable

HIGHER EXPECTATIONS FOR HIGHER EDUCATION

Generation Z is in college, so you know a lot about them already, including this: they expect technology to just work. More importantly, they expect technology to work for them. They grew up with the internet at their fingertips and intuitive digital technology all around, from touchscreen phones and laptops to easy Bluetooth® connectivity, self-checkout, and Wi-Fi everywhere. For Generation Z, technology just is. Just tap. Just scroll. Just connect. Just go.

For Generation Z, these types of experiences are not innovative or even interesting. They're expected.

Technology has simply become part of that basic, expected infrastructure of higher education, and great campus audio is no exception.



FACULTY



ENDLESS DEMANDS, ONE MISSION

For every instructor and in every discipline, teaching boils down to one universal objective: effective communication. Audio systems can help or hinder that mission. The right audio solution must allow teachers to be heard without strain and to use class time efficiently. It also needs to be flexible, able to support different teaching styles. Reliable and consistent audio is vitally important to providing a modern and effective learning experience.

Reliable audio supports faculty

- Allows instructors to communicate without hassle or strain
- Keeps needless complexity out of the lecture hall and doesn't require daily troubleshooting
- Provides intuitive operation and flexibility to support different teaching styles

INNOVATION BEGINS WITH EXPLORATION

At Bose Professional, we have a heart for education. Founded by MIT professor Dr. Amar Bose, our company was established as an incubator for research, exploration, and innovation. Our **unique relationship with MIT** endures to this day. For us, the classroom is a truly special place. So the audio solutions we offer support every corner of the campus: lecture halls, theatres, activity centers, dining hall, common areas, courtyards, labs, and administration buildings. All to help ensure education fulfills its purpose: transformation.



LECTURE HALLS

WHERE CLEAR COMMUNICATION MEANS VITAL TRANSFORMATION

Teaching is all about communication, so our lecture hall audio solutions make it easier to hear and understand teachers even in the largest halls. Bose Professional

loudspeakers offer superior vocal intelligibility so students can hear clearly and stay focused from every seat.

Here are just a few scalable system examples for lecture halls.

SMALL HALLS



ControlCenter
controllers



ControlSpace
processors



PowerSpace
amplifiers



EdgeMax
in-ceiling loudspeakers

MEDIUM HALLS

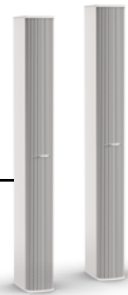


ControlCenter
controllers



ControlSpace
processors

Panaray MSA12X
loudspeakers



LARGE HALLS



ControlCenter
controllers



ControlSpace
processors



PowerMatch
amplifiers

RoomMatch DeltaQ
loudspeakers





MULTIPURPOSE SPACES

SOUND BEYOND THE LECTURE HALL

So much of college life happens outside the lecture hall — dining, performances, recreation, and informal meetings — but they all create the fabric of community on campus. From light background music to high energy dance parties; audio solutions for these spaces need to combine extraordinary versatility with intuitive simplicity.

For multipurpose spaces, here are some system examples, all of which are scalable.

COMPACT, VERSATILE

L1 and S1 Pro
portable PA systems



SLIM, POWERFUL



ControlCenter
controllers



ControlSpace
processors

Panaray MSA12X
loudspeakers



VERSATILE, INSTALL INDOORS OR OUTDOORS



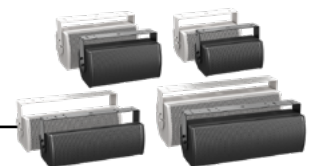
ControlCenter
controllers



ControlSpace
processors



PowerSpace
amplifiers



ArenaMatch Utility
loudspeakers

SUPPORT SYSTEMS



PowerShare amplifiers

DesignMax loudspeakers



PERFORMING ARTS

SOUND THAT CAPTURES AND CONNECTS

For theatrical performances, musical acts, dance, comedy, and more, great audio systems connect the art of the performer to the science of sound. Our loudspeakers, amplifiers, and signal processors are built to create real

impact — connecting artist and audience in a memorable, shared experience — and designed with precision to perform reliably, delivering sound with depth and clarity, so the audience hears exactly what each artist intends.

Here are a few options for performing arts venues.

COMPACT, VERSATILE

L1 and S1 Pro
portable PA systems



POWERFUL, COMPACT, INSTALL INDOORS



ControlCenter
controllers



ControlSpace
processors



PowerMatch
amplifiers

ShowMatch
DeltaQ loudspeakers



POWERFUL, COMPACT, INSTALL INDOORS



ControlCenter
controllers



ControlSpace
processors



PowerMatch
amplifiers

RoomMatch
DeltaQ loudspeakers





ATHLETICS

SO FANS FEEL EVERY SECOND

From the sideline to the concourse, great sound should deliver an unforgettable experience. In live sports, sound is one of the most important players. It needs to be powerful in the bowl. Full but not overpowering in the suites and

at the concessions. Even and consistent as you walk the concourse. So, for every audience space, we've developed full solutions to keep fans energized.

Athletic spaces often require both main and supporting systems. Some examples:

POWERFUL, COMPACT, INSTALL INDOORS



ControlCenter
controllers



ControlSpace
processors



PowerMatch
amplifiers

ShowMatch
DeltaQ loudspeakers



POWERFUL, INSTALL OUTDOORS



ControlCenter
controllers

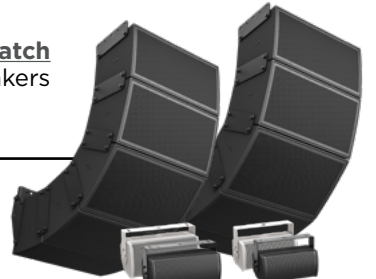


ControlSpace
processors



PowerMatch
amplifiers

ArenaMatch
DeltaQ loudspeakers



ArenaMatch Utility
loudspeakers



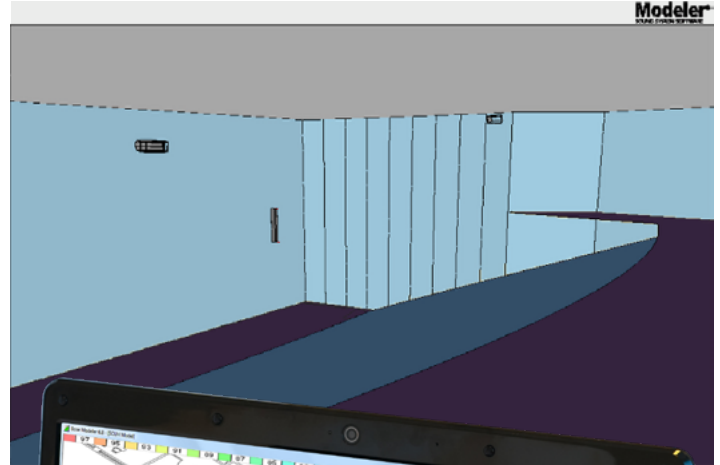
SUPPORT SYSTEMS



DesignMax loudspeakers

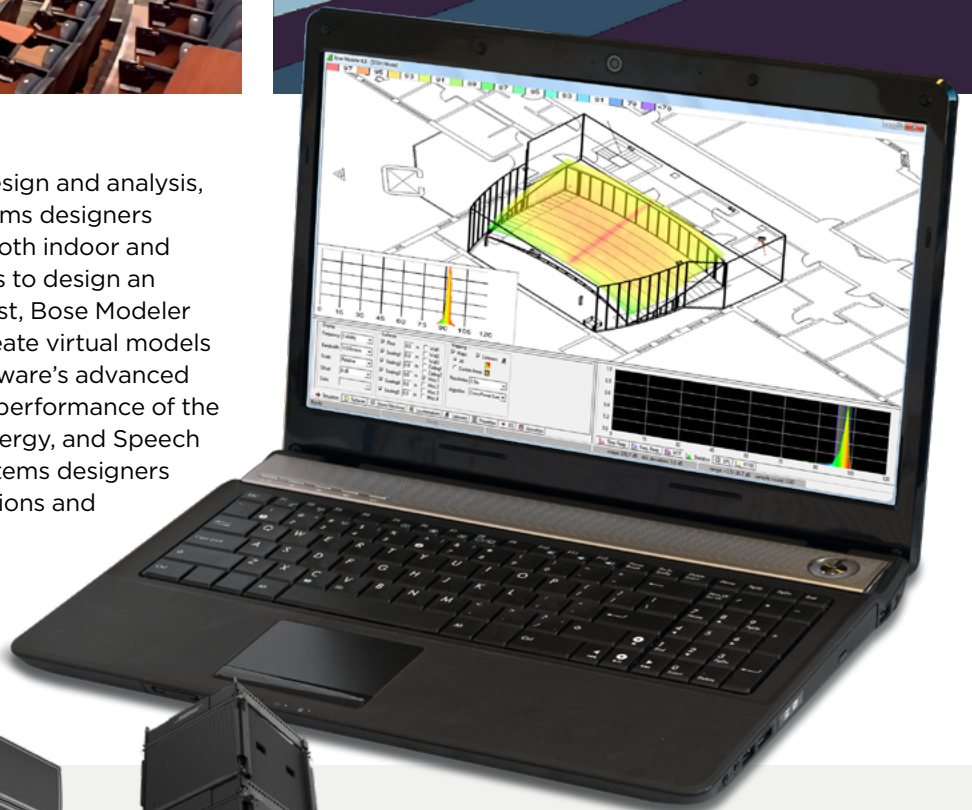


PowerShare amplifiers



BOSE MODELER SOFTWARE

A 3D modeling program for acoustic design and analysis, **Bose Modeler** software helps AVI Systems designers predict sound system performance in both indoor and outdoor higher-education environments to design an optimal sound system for the space. First, Bose Modeler software allows system designers to create virtual models of real rooms on campus. Then the software's advanced algorithms are able to predict acoustic performance of the space, including direct and reflected energy, and Speech Transmission Index. This allows AVI Systems designers to test different loudspeaker configurations and placements for optimal coverage, SPL, and intelligibility.



left to right:
RoomMatch, ArenaMatch, ShowMatch line arrays

ARRAYS TO MATCH ANY SITUATION

For larger rooms and venues, we have sound reinforcement solutions to meet the need.

For indoor installation: **RoomMatch loudspeakers.**

For outdoor installation: **ArenaMatch loudspeakers.**

For temporary or movable applications indoors or outside: **ShowMatch loudspeakers.**



When it comes to sound reinforcement in large spaces, you need more than raw power. You need precision. Bose DeltaQ array technology lets AVI Systems designers improve sound quality, consistency, and vocal clarity. DeltaQ technology allows for selectable coverage patterns, meaning directivity, or "Q," can vary in each module to more precisely match the coverage of the array to the audience area.

TECH TEAM

MANAGING TECHNOLOGY, NOT FRUSTRATION

For campus technology teams — whether comprised of students, full-time staff, or a mix of both — an unreliable audio system made up of disparate components can present constant obstacles and frustration.

Alternatively, the right audio solutions can form a campus-wide audio ecosystem, providing both predictable performance and a consistent operating framework for both faculty and staff.

Flexible audio empowers staff

- Provides predictable and reliable performance across campus
- Allows for easy reconfiguration to adapt to various needs quickly



COMPLETE SYSTEMS

Of course, loudspeakers are only as good as the system supporting them. So we've created an entire range of complementary products, such as Bose PowerMatch amplifiers and ControlSpace DSPs, to ensure your sound reinforcement system has everything covered.



DELIVERING A LEARNING EXPERIENCE

It's true that higher-education institutions face significant challenges when it comes to increasing — or even maintaining — on-campus enrollment. But they also have extraordinary advantages that can't be duplicated online. Because education is about a lot more than downloading information from one brain to another. It's about venturing

out, encountering the unfamiliar, growing as an individual and as part of society, stretching the mind, building enduring friendships. Education is about true human connection and community, and ultimately that's what good campus audio systems facilitate: connection and community. That's the best way to learn. That's the value of the on-campus experience. ■



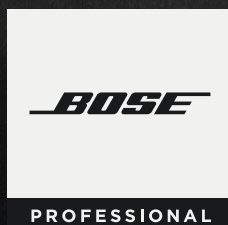
CONTACT AVI SYSTEMS FOR A FREE ASSESSMENT

To learn more about the full range of Bose Professional audio solutions and how they can enhance your entire campus, contact AVI Systems at **855 521 0050** or www.avisystems.com/av-assessment.



ABOUT BOSE PROFESSIONAL

Pro audio is about creating incredible experiences, and those experiences don't just happen. They need to be built, one piece at a time. That's why we're here. Our loudspeakers, amplifiers, and processors deliver great sound in spaces all around the world — lecture halls, corporate buildings, places of worship, stadiums, restaurants, retail stores, hotels, and more.



PRO.BOSE.COM

ABOUT AVI SYSTEMS

Organizations who value the power of visual communications trust AVI to enable people and teams to communicate their critical ideas. AVI technologies accelerate decision making, improve human interactions and create immersive digital experiences.



AVISYSTEMS.COM