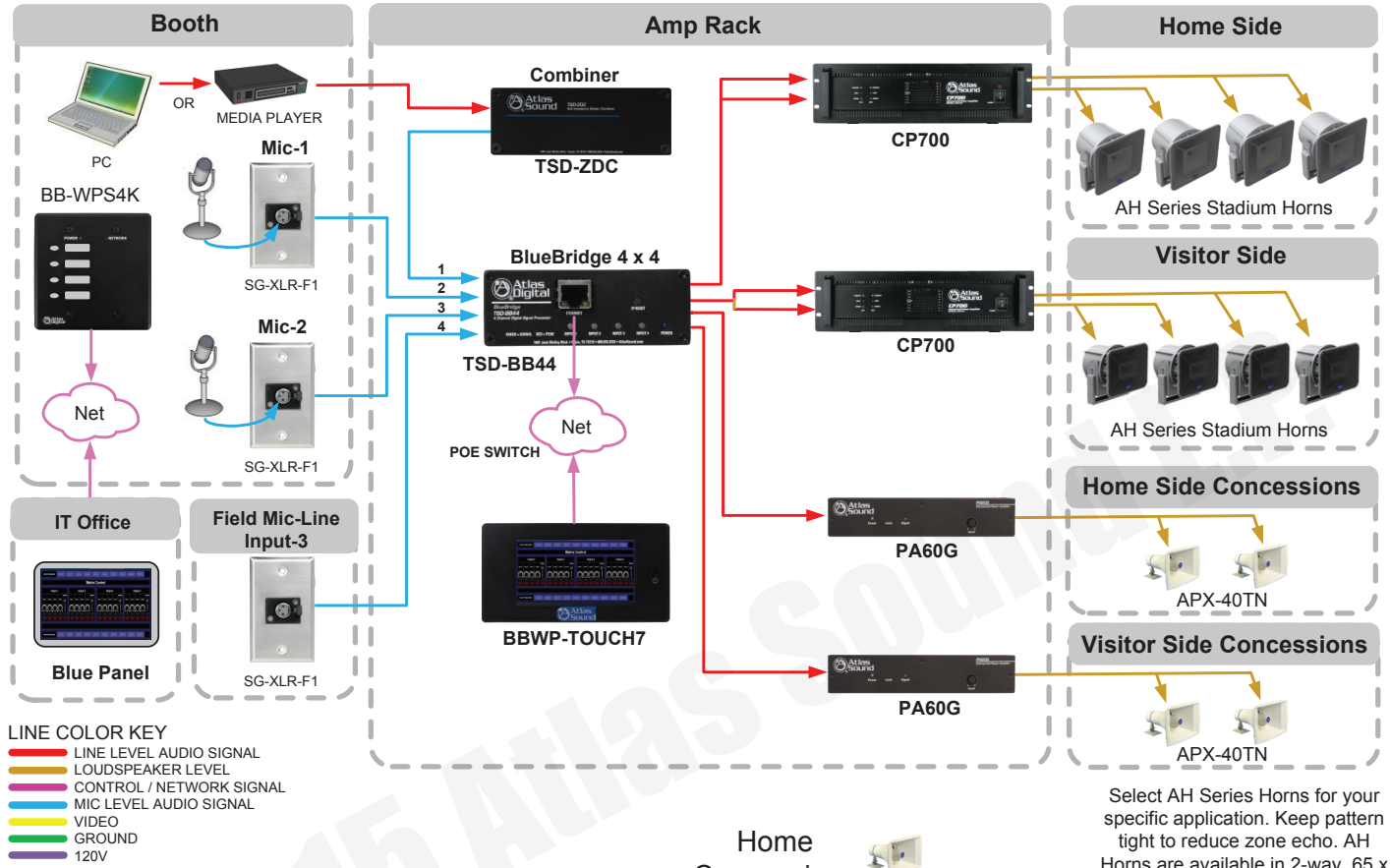
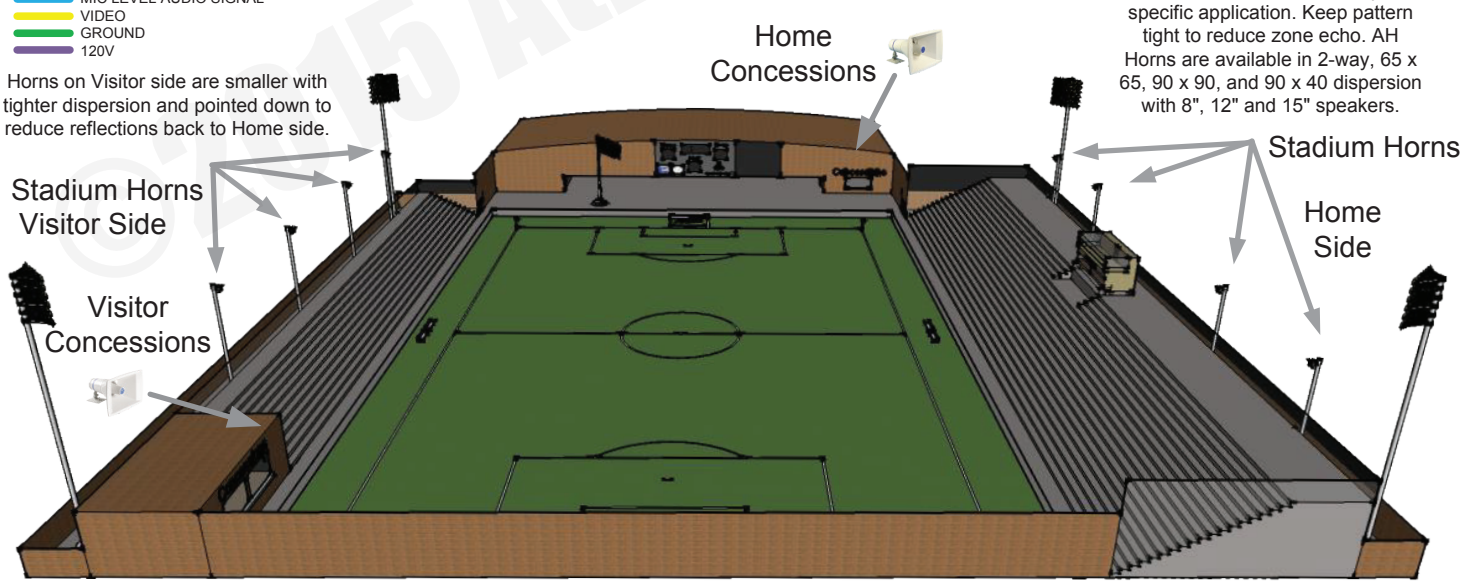
Soccer Field Sound System Featuring BlueBridge TSD-BB44 and Stadium Horns



LINE COLOR KEY
- LINE LEVEL AUDIO SIGNAL
- LOUDSPEAKER LEVEL
- CONTROL / NETWORK SIGNAL
- MIC LEVEL AUDIO SIGNAL
- VIDEO
- GROUND
- 120V

Horns on Visitor side are smaller with tighter dispersion and pointed down to reduce reflections back to Home side.

Select AH Series Horns for your specific application. Keep pattern tight to reduce zone echo. AH Horns are available in 2-way, 65 x 65, 90 x 90, and 90 x 40 dispersion with 8", 12" and 15" speakers.



This is a design concept and is not meant to be a fully engineered system design. Contact Atlas Sound for system design help.

Atlas Sound
1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.
Telephone: 800.876.3333 • Fax: 800.765.3435

Overview:

A newly built soccer field is located in an area with a strict noise regulation and needs a sound system that keeps the sound inside the stadium as much as possible. The use of multiple distributed transducers allows SPL to be kept lower than a single point system where typically, long throw horns shoot across the field and bleachers at very high levels and can be heard for miles. This example demonstrates the use of a BlueBridge® TSD-BB44 to control four zones of distributed audio; two zones for Home and Visitor bleachers and one zone for each of the two concession areas. This type of sound system requires careful management of sound coverage, reflections, and SPL to minimize echo, which reduces intelligibility. The BlueBridge TSD-BB44 is ideally suited to this application with extensive DSP speaker management control and programmable preset assignments to simplify use.

Application Example Description:

In this example, four (4) AH66-12T-BSG stadium horns are pole-mounted across the rear of the Home side bleachers. The narrow 65° x 65° degree horns are aimed down at the bleachers to optimize the bleacher coverage while minimizing the echo effect (pattern over-spill) at various seats. This type of non-reflective echo, sometimes referred to as an artificial echo, is created by the audio sources being at different distances from the seats. In addition, coverage for the field from the Home side should be contained from spilling to the Visitor side as much as possible while still getting some fill to the players. Similarly, four (4) AH66-8T-BSG stadium horns are pole-mounted across the rear of the Visitor side bleachers in the same way, except contained to the bleachers only to minimize the "canyon echo" at the Home side. The Home and Visitor concession areas utilize APX-40TN horns to fill local and common areas. The BlueBridge® TSD-BB44 outputs (4) line level signals to four (4) total 70V Atlas amplifiers, two (2) 2-channel CP700 and two (2) PA60G. The BlueBridge® TSD-BB44 has four (4) inputs that can be configured as Mic or Line level and can be included in presets. A stereo media player or PC audio output connects through a TSD-ZDC passive combiner to feed a mono signal to input 1 at Line level. Inputs 2-4 are configured as microphone level inputs wired through (3) XLR wall plates (SG-XLR-F1). "Mic-1" is the main announcer's microphone and "Mic-2" is for a guest. "Field Input-3" is used as a wired or wireless microphone or small mixer for several wireless microphones on the field. There are three controllers shown, a BB-WPS4K wall plate handles the Preset configurations, a BBWP-TOUCH7 touchscreen allows live mixing, dynamic selections, matrix routing, faders, etc., and a Blue Panel running on a PC emulates the Touch Screen from the IT office for remote management. This design concept shows several ways in which the TSD-BB44 can be used but the possibilities are endless.

Note: Horn coverage, Sound Pressure Level and amplifier specifications are specific to the conditions of each application. Contact Atlas for help for your specific engineered design.