JBL PROFESSIONAL

BASAO Audio
Official distributor in VIET NAM

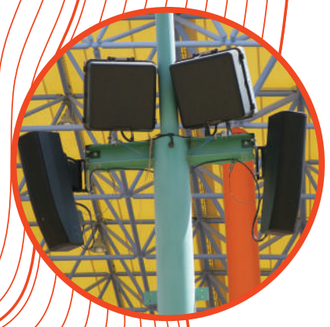
CBT & INTELLIVOX

SCALABLE, INTEGRATED, INSTALLED AUDIO SOLUTIONS

BASAO Audio Official distributor in Viet Nam

JBL AKG Soundcraft crown Martin BSS dbx lexicon DigiTech

www.jblprovietnam.vn WWW.jblpro.com WWW.basaoinvest.com



Contents Guide

About JBL

POWER AND VERSATILITY IS ONLY THE BEGINNING.

When it comes to the listening experience, JBL never ceases to push the boundaries. From its inception over 75 years ago, the brand has grown to become synonymous with epic sound. And while the enjoyment is instinctive, the science behind each and every innovation is precise and methodical. Passionate and gifted engineers and designers around the world devote themselves to developing JBL products and solutions that take listening to the next level - and they've been doing it since day one.

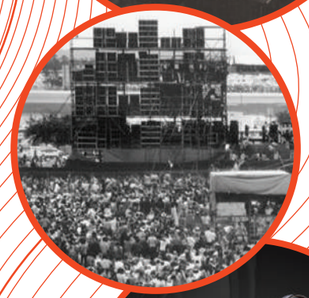
Today, JBL professional solutions encompass recording studios, movie theatres, tour sound, installed sound, arenas and stadiums, and much more. At the heart of each of these solutions is a meticulous attention to detail, a willingness to develop everything from the ground up, and an absolute dedication to giving artists outstanding sound, whether they're performing at a major music festival or busking on a street corner. And the technologies that JBL develops for its professional audience benefit all of JBL's listeners as they are distilled into smaller form factors, allowing people everywhere to enjoy professional quality sound at a convenient size and an affordable price.

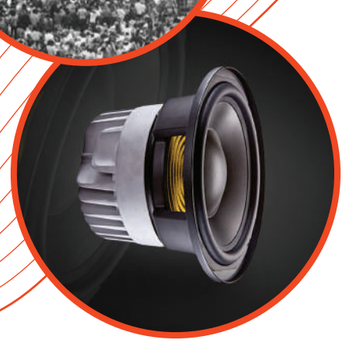
Over the decades, JBL has contributed a remarkable number of industry firsts and technical innovations that further cemented its reputation as an audio pioneer, garnering Grammy® awards, Academy awards, and widespread recognition from the world's most celebrated musicians and consumers along the way.

Expertly blending a bold vision of the future with the passion and talent of its engineers and designers, JBL develops its own solutions, invents its own technologies, and creates its own tools with a pioneering spirit that has defined the brand for the past 75 years. Today, JBL is present in more than 130 countries, encompasses an increasingly diverse range of next-level products and solutions, and has over 300 patents to its name, such as VGC™ transducer technology, Slip Stream™ low frequency port, Progressive Transition™ (PT) waveguides, and Plus One™ woofer cone technology.

Thanks to a truly exceptional dedication to constantly delivering exactly what customers desire, JBL sound has become part of the fabric of people's lives. Whether it's cinema sound that makes the movie-going experience more immersive, soundbars that transform the living room into a concert hall, portables that let listeners enjoy their favourite tunes wherever they go, gaming headsets that make players swear they've just stepped into the game, or in-car audio technology that turns the daily commute into a moment of pure listening pleasure, JBL fills listeners' lives with sound as it was meant to be heard.

A Journey of Engineering Excellence





Audio technology is at the core of everything JBL does. For over 75 years they have employed the best methodology and tools, developing everything from the ground up, guaranteeing their efforts exceed the needs and expectations of audio professionals throughout the world. Never straying from this exacting formula, this journey has produced a prolific list of audio achievements, ground-breaking technologies, revolutionary advances in the art and science of professional audio, many patents, and many awards. It's a journey that is legendary worldwide and has positioned JBL as the world leader in professional audio. Not just as a brand, but as a company known for consistently blending creativity and science as a manifestation of their passion for sound and commitment to those who create it.

Transducers.

The technology of transducers is truly the starting place for the entire JBL engineering legacy. Company founder James B. Lansing pioneered the use of permanent magnets in pro transducers – until this point they had all dual been coil designs which were much less accurate and powerful. Building on this historic foundation, JBL engineers continue to break ground on new and better ways to design transducers, reaching beyond what is commonly understood as possible and consistently setting new performance benchmarks for the audio industry. Often developing patents in the process, their work has resulted in technologies such as Differential Drive woofers, CMCD Cone Midrange drivers, and the D2 Dual Voice Coil Compression Driver, covering the entire practical bandwidth of professional audio devices. Simultaneously addressing performance-robbing challenges such as power compression, heat dissipation, distortion, component weight, and physical footprint, JBL has created a range of transducers that are unparalleled in their ability to deliver extraordinary performance throughout a wide range of applications.

Logarithmic Driver Spacing

When it comes to column line arrays, the physical positioning of the transducers is just as important as the quality of the components. Intellivox takes a different approach, calling on logarithmic driver spacing. This technique provides denser driver spacing at short wavelengths and economises on the number of drivers needed for longer wavelengths by spacing them in increasingly larger logarithmic increments. For good line array behaviour, the individual elements have traditionally needed to be spaced more than 1/2 wavelength apart for a given frequency. This meant that loudspeakers reproducing longer wavelengths could be spaced farther apart without any deterioration in performance.

Directivity.

Building better loudspeakers is only the first of many performance challenges that face all audio design engineers. Controlling the sound as it leaves the speaker enclosure is as critical to the performance of the system as the quality of the source component. The goal is always the same: create a consistent sound pattern throughout the desired vertical and horizontal plane without introducing artifacts, while ensuring the full bandwidth and SPL capability of the transducers, and providing a seamless transition from high frequency to low frequency components. JBL engineers relentlessly test new shapes and develop new materials to achieve the desired performance, often inventing new testing methodologies to ensure that nothing is left out of a thorough and rigorous examination of the design. The resulting technology has produced such ground-breaking designs as the Progressive Transition Waveguide, Image Control Waveguide, Slip Stream Port, Radiation Boundary Integrator, and Constant Curvature Waveguide. With multiple patents, and many successful installations in use worldwide, this critical component of JBL technology continues to evolve through our continuous pursuit of better, more accurate sound.

With column loudspeakers like the CBT family, these carefully optimised acoustic waveguides can be successfully combined with other technology, such as passive beam steering. This type of combination will successfully bring out the peak performance from both elements, ensuring a superior end result.

Radiation Boundary Integrator™ (RBI)

JBL's patented Radiation Boundary Integrator combines the high frequency and mid-range so the transition across each band is uninterrupted, undistorted and seamless. A patented, tuned resonant chamber is integrated into the waveguide itself, effectively eliminating throat-related cancellations due to back pressure from the mid-range section. Our refined RBI waveguide implementation provides improved horizontal coverage - broader and more stable.

Constant Beamwidth Technology

JBL's patented Constant Beamwidth Technology (CBT) draws upon two key principles to deliver precise pattern control from passive column array loudspeakers. The development of Legendre Shading for sonar saw the creation of a clean and uniform beam from a sphere of transducers with gain reduction that increases in each driver as you fan out from the centre. Building on this research, JBL's major breakthrough came from the understanding that you can use a passive delay and filter network to achieve the same lobe-free beam from a straight form factor.

The combination of technologies ensures constant directivity up to the highest frequencies and reduces out-of-coverage lobing. This is particularly important for highly reflective or reverberant acoustic environments. Thanks to CBT the acoustic energy can be focused on the audience and not the walls, delivering a vastly improved experience.

DDS Beam Shaping

Digital Directivity Synthesis (DDS) is the foundation of the beam shaping technology that defines Intellivox and marks a significant upgrade on beam steering solutions. DDS allows you to control the near and far field dispersion of a loudspeaker array, creating the best possible coverage with the maximum direct to reverberant ratio, while also defining where you want to cover and where you want to avoid. This allows custom shaping of the directivity pattern for the JBL Intellivox arrays to produce a beam which is tailored to precisely match the audience area within the space in which they are installed.

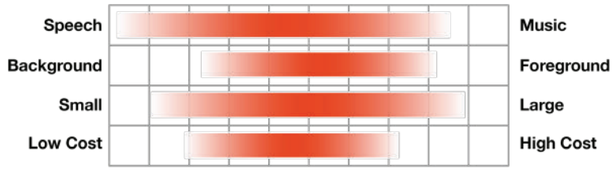
DDS relies on a complex algorithm that works to optimise arrays for consistent frequency response and SPL across listener planes. Using software to define parameters, such as the room's acoustic properties, the loudspeakers you are using and the coverage you require, the DDS algorithm will create the optimum performance for that space to meet your goals.

The result is a single, coherent beam that can easily cover complex audience planes, along with asymmetrical coverage allowing for improved linearity in the near field versus the far field.

Testing.

All audio products have a useful life, and JBL engineers are committed to making that as long as possible, not only in terms of reliability, but also in terms of how good the sound is the very first time a system is turned on. Every JBL Professional product undergoes stringent testing above and beyond what the product would face when deployed in the real world.

JBL has multiple application specific anechoic testing chambers, and has developed the only known 'Speaker Shuffler' that allows rapid and precise re-positioning of speaker systems in the exact same space for truly accurate A/B testing. This rigorous, uncompromising adherence to testing results in continuous breakthroughs in performance and ensures that JBL users worldwide can always work with confidence.



Constant Beamwidth Technology™ CBT Series

CBT Series Passive Controlled-Coverage Columns

The CBT Series is a supremely flexible family of problem-solving passive column speakers that offer impressive audio quality. Thanks to their Constant Beamwidth Technology and their ability to focus sound on the audience, CBT columns are particularly suited challenging acoustic environments. The end result is a slim column with wide horizontal and narrow vertical coverage which delivers powerful, intelligible full-range sound both indoors and outside.

International Education City, Vietnam

Suffix & Prefix Guide

(not all accessories are shown in brochure):

ADC .....Analogue Directivity Control

CBT .....Constant Beamwidth Technology

DS .....DDS Active Beam Shaping

E .....Extension

H .....Horizontal Orientation

HP .....High Power & High Output

J .....Asymmetrical Vertical Curve

LA .....Line Array Column Loudspeaker

LS .....UL Life Safety (may also have VA certification)

V .....Vertical Orientation

Black / White

CBT 50LA-1

Constant Beamwidth Technology™ Line Array Column Loudspeaker

Components:
8 x 50mm (2-in) Full Range

Frequency Range (-10dB):
80 Hz – 20 kHz

Dimensions:
528 x 99 x 153mm
20.8 x 3.9 x 6-in

Black / White

CBT 50LA-LS

Line Array Column Loudspeaker, EN54:24 Certified

Components:
8 x 50 mm (2 in) Full Range

Frequency Range (-10dB):
120 Hz – 20 kHz

Dimensions:
528 x 99 x 153 mm
20.8 x 3.9 x 6 in

Black / White

CBT 100LA-1

Constant Beamwidth Technology™ Line Array Column Loudspeaker

Components:
16 x 50 mm (2 in) Full Range

Frequency Range (-10dB):
80 Hz – 20 kHz

Dimensions:
1000 x 98.5 x 153 mm
39.4 x 3.8 x 6 in

Black / White

CBT 100LA-LS

Line Array Column Loudspeaker, EN54:24 Certification

Components:
16 x 50 mm (2 in) Full Range

Frequency Range (-10dB):
80 Hz – 20 kHz

Dimensions:
1000 x 98.5 x 153 mm
39.4 x 3.8 x 6 in

Black / White

CBT 200LA-1

Constant Beamwidth Technology™ Line Array Column Speaker

Components:
32 x 50 mm (2 in) Full Range

Frequency Range (-10dB):
80 Hz – 20 kHz

Dimensions:
2000 x 98.5 x 153 mm
78.8 x 3.8 x 6 in

Black / White

CBT 70J-1

Constant Beamwidth Technology™ Two-Way Line Array Column

Components:
4 x 130 mm (5-in) LF
16 x 25 mm (1-in) HF

Frequency Range (-10dB):
60 Hz – 20 kHz

Dimensions:
694 x 170 x 237 mm
27.4 x 6.7 x 9.3 in

Black / White

CBT 70J-1 + 70JE-1 SYSTEM

Extension for CBT 70J-1 Line Array Column Speaker

Components:
8 x 130 mm (5 in) LF
16 x 25 mm (1 in) HF

Frequency Range (-10dB):
45 Hz – 20 kHz

Dimensions:
1388 x 170 x 237 mm
54.8 x 6.7 x 9.3 in

Black / White

CBT 1000

Constant Beamwidth Technology™ Adjustable Coverage Line Array

Components:
6 x 165 mm (6.5 in) LF
24 x 25 mm (1 in) HF

Frequency Range (-10dB):
45 Hz – 20 kHz

Dimensions:
1020 x 250 x 345 mm
40.2 x 9.9 x 13.6 in

Black / White

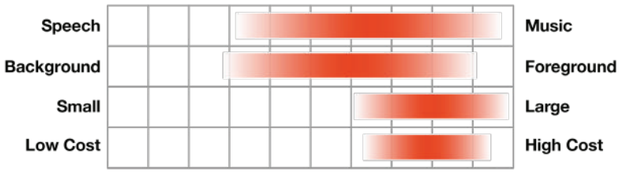
CBT 1000 + CBT 1000E SYSTEM

Extension for CBT 1000 Line Array Column Speaker

Components:
12 x 165 mm (6.5 in) LF
24 x 25 mm (1 in) HF

Frequency Range (-10dB):
38 Hz – 20 kHz

Dimensions:
2040 x 250 x 345 mm
80.4 x 9.9 x 13.6 in



White / Custom Colour

Intellivox HP-DS170

Active Beam Shaping Self Powered Column Loudspeaker Array, IP55

Components:
10 x 165 mm (6.5 in) Full Range
2 x 1 Compression Driver,
Coaxially Mounted

Frequency Range:
140 Hz – 18 kHz (+/-3 dB)

Typical Throw Distance:
15 – 30 m

Dimensions:
1698 x 198 x 189 mm
66.9 x 7.8 x 7.4 in

White / Custom Colour

Intellivox HP-DS370

Active Beam Shaping Self Powered Column Loudspeaker Array, IP55

Components:
14 x 165 mm (6.5 in) Full Range
2 x 1 Compression Driver,
Coaxially Mounted

Frequency Range:
130 Hz – 18 kHz (+/-3 dB)

Typical Throw Distance:
25 – 50 m

Dimensions:
3738 x 198 x 189 mm
147.2 x 7.8 x 7.4 in

Kölner Dom Cologne, Germany

Intellivox High Power Series

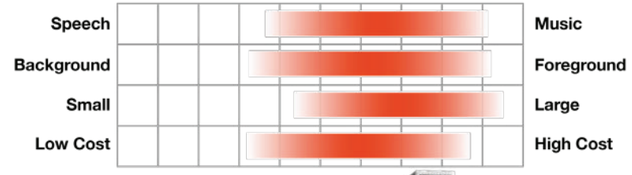
Active Beam Shaping Column Loudspeaker Arrays

The Intellivox High Power Series has been created for applications that require high sound pressure levels or can be paired with a subwoofer to provide full range sound reinforcement. With DDS Beam Shaping technology, each active DSP-controlled loudspeaker array delivers high-quality music reproduction while overcoming speech intelligibility issues in challenging environments. These slim, unobtrusive columns are a perfect solution for reverberant spaces such as houses of worship, theatres and transport hubs.

Intellivox DSX

Active Beam Shaping Columns For Full Range Applications

Intellivox DSX active beam shaping columns are the ideal choice for projects in reverberant spaces that will benefit from heightened directional control. Thanks to DDS Beam Shaping technology, users obtain full control of near- and far-field coverage to direct the acoustic energy exactly where it is required – the listener's ear. The superb speech intelligibility that results from this design makes these slim, unobtrusive Intellivox columns a perfect, reliable fit for mission-critical, life safety applications as well as full-range reproduction.



White / Custom Colour

Intellivox DSX180

Active Beam Shaping, Self Powered, Loudspeaker Array

Components:
10 x 101 mm (4 in) Full Range
4 x 1 Dome Tweeter, Horn Loaded

Frequency Range:
130 Hz – 10 kHz (+/-3 dB)

Typical Throw Distance:
10 – 25 m

Dimensions:
1780 x 134 x 92 mm
70.1 x 5.3 x 3.6 in

White / Custom Colour

Intellivox DSX280 HD

Active Beam Shaping, Self Powered, Loudspeaker Array

Components:
12 x 101 mm (4 in) Full Range
4 x 1 Dome Tweeter, Horn Loaded

Frequency Range:
130 Hz – 10 kHz (+/-3 dB)

Typical Throw Distance:
20 – 35 m

Dimensions:
2800 x 134 x 92 mm
110.2 x 5.3 x 3.6 in

White / Custom Colour

Intellivox DSX380 HD

Active Beam Shaping, Self Powered, Loudspeaker Array

Components:
16 x 101 mm (4 in) Full Range
4 x 1 Dome Tweeter, Horn Loaded

Frequency Range:
130 Hz – 10 kHz (+/-3 dB)

Typical Throw Distance:
30 – 40 m

Dimensions:
3750 x 134 x 92 mm
147.6 x 5.3 x 3.6 in

White / Custom Colour

Intellivox DSX430

Active Beam Shaping, Self Powered, Loudspeaker Array

Components:
13 x 101 mm (4 in) Full Range
8 x 1 Dome Tweeter, Horn Loaded

Frequency Range:
130 Hz – 10 kHz (+/-3 dB)

Typical Throw Distance:
35 – 55 m

Dimensions:
4350 x 134 x 92 mm
171.3 x 5.3 x 3.6 in

White / Custom Colour

Intellivox DSX500

Active Beam Shaping, Self Powered, Loudspeaker Array

Components:
28 x 101 mm (4 in) Full Range
8 x 1 Dome Tweeter, Horn Loaded

Frequency Range:
130 Hz – 10 kHz (+/-3 dB)

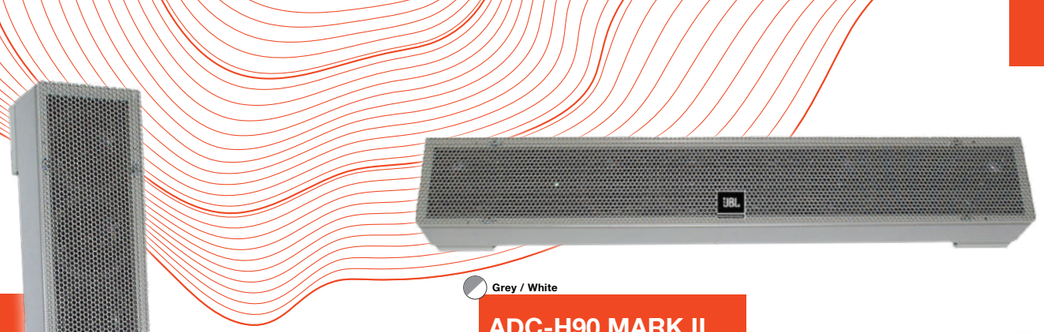
Typical Throw Distance:
50 – 70 m

Dimensions:
4930 x 134 x 92 mm
194.1 x 5.3 x 3.6 in

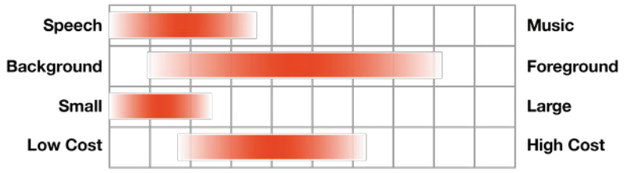
Intellivox ADC
Analogue Directivity Control

Compact Loudspeaker Arrays for 70V/100V PA/VA Systems

The Intellivox ADC (Analogue Directivity Control) Mark II range has been created for 70V/100V Public Address and Voice Alarm (PA/VA) systems. The columns rely on ADC technology, a set of passive filters which has been precisely transferred into the analogue domain from the Digital Directivity Control (DDC) algorithm. The Passive filter network provides time alignment for the individual drivers, equalisation of the complete array and creates a constant wavelength line source.



COLUMN



Grey / White

ADC-V90 MARK II

Vertically Mounted 100V Line Passively Powered Intellivox With Fixed Beam, EN54:24 Compliant for Life Safety Applications

Components:
6 x 101 mm (4 in) Full Range

Frequency Range:
120 Hz – 12 kHz (+/-3 dB)

Typical Throw Distance:
10 – 15 m

Dimensions:
865 x 134 x 92 mm
34.1 x 5.3 x 3.6 in

Grey / White

ADC-H90 MARK II

Horizontally Mounted 100V Line Passively Powered Intellivox With Fixed Beam, EN54:24 Compliant for Life Safety Applications

Components:
6 x 101 mm (4 in) Full Range

Frequency Range:
150 Hz – 14 kHz (+/-3 dB)

Typical Throw Distance:
10 – 15 m

Dimensions:
865 x 134 x 92 mm
34.1 x 5.3 x 3.6 in

Dushanbe Central Mosque, Tajikistan

Kings Cross, London, UK

CBT & INTELLIVOX

SCALABLE, INTEGRATED, INSTALLED AUDIO SOLUTIONS

JBL PROFESSIONAL

BASAO Audio

Official distributor in VIET NAM

www.jblprovietnam.vn

www.jblpro.com

www.basaoinvest.com