

# Product Overview

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Constant Power Point Source Array

Large Format Point Source System

Active Driven Systems

Passive Speakers & Amplifiers

Active Speakers

Stage Monitors

Processors

DI Boxes





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Founder, Chief Engineer, Legendary Pro Audio Pioneer

# Product Overview

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Constant Power Point Source Array / **VHD5.0**

Large Format Point Source System / **VHD**

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Technical Specifications

# Constant Power Point Source Array

## VHD5.0

KV2 Audio's philosophy has always been to embrace the principles of point source speaker system design to provide optimum sound quality and coverage for applications and audiences of all sizes. The challenge for KV2 in building a large point source system for audiences of 50,000 people plus was to reproduce the low mid energy that certain line arrays provide, through the summing of multiple drivers, whilst maintaining the key benefits of point source technology. These benefits include minimal destructive interference in the higher frequency range, accurate impulse response and superior sound.

Utilizing highly advanced point source speaker design, extremely efficient power management amplifier technology and totally unique hybrid signal processing, KV2 has created the first major advancement in large-scale concert sound reinforcement since the development of the Line Array. The VHD5.0 Constant Power Point Source System is a true feat of engineering. Over five years in development it brings the benefits of point source technology to large-scale concert sound reinforcement. The system delivers audio over large areas with clarity and definition simply not achievable from the digitally processed line arrays that are so commonly used today.

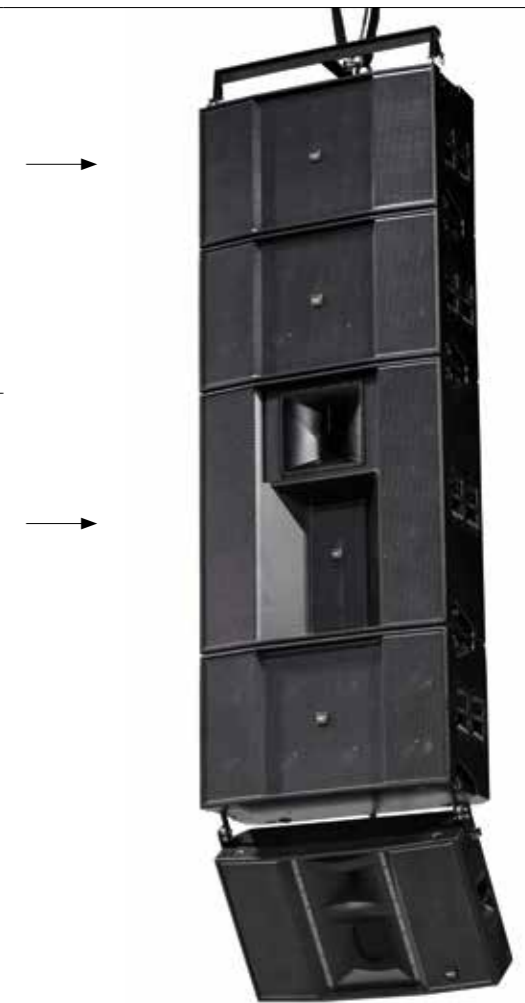


## VHD8.10 Low Mid

To provide the required energy in the low mid needed to cover very large audiences, KV2 developed the VHD8.10 Low Mid Expansion Box. This enclosure carries eight front-loaded 10" speakers and three of these cabinets are added to each VHD5.0. This provides a total of thirty-two 10" speakers giving the extra headroom needed in the low mid band and extended projection of these frequencies over distance.

## VHD5.0 Mid Hi

The VHD5.0 is a three-way enclosure handling low mids, mids and highs over a frequency range from 45Hz through to 20kHz. It incorporates eight front-loaded 10" low mid drivers, six horn-loaded 8" mid range drivers and three 3" NVPD (Nitrate Vapour Particle Deposition) Titanium compression drivers on a custom designed, manifold horn assembly with summing waveguide. With the capacity to run full range down to 45Hz the VHD5.0 is usually crossed over at 70Hz to the VHD4.21 Active Sub Bass Modules. Both the VHD5.0 and VHD8.10 cabinets incorporate very simple to use integrated fly ware that links cabinets together quickly and easily. A complete system (4 VHD5.0's and 12 VHD8.10's) can be flown by two people in less than two hours.



## Amplifiers

### VHD5000 & VHD5000S

The VHD5000 amplification and control unit is specifically designed for powering the VHD 5.0 loudspeaker system and contains two Class AB amplifiers totaling 900-watts for the high frequencies and a 1200-watt Class H amplifier for the mids. It also controls the VHD5000S which houses two 2500-watt Class G amplifiers that power the low mids in the system. The VHD5000 incorporates state of the art hybrid processing via discrete ultra fast analog circuitry and our proprietary 20MHz PDM technology for all required filtering and time alignment.

The VHD5000S is a rack mounted, high efficiency, low/mid amplifier, specifically designed in conjunction with VHD5000 for powering the VHD5.0 low/mid loudspeaker system.

A front panel touch screen allows easy control, level adjustment and muting of the frequency bands and full adjustment of the digital delay lines and other parameters on board. Control can also be done remotely via Ethernet or Wi-Fi utilizing our proprietary K-NET networking.



# Large Format Point Source System

## VHD Series

The Original VHD High Performance Touring and Installation system from KV2 Audio has been designed to revolutionize the concert sound market by offering unparalleled quality, power and coverage, with huge cost savings in terms of size, weight, transportation, storage and set up time.



### VHD2.0

A powerful long throw system for audiences of up to 20,000 people without requirement for additional delay systems. A three-way design featuring a 3" compression driver with NVPD treated dome assembly, two horn loaded 8" speakers featuring AIC technology and two horn loaded 12" mid-bass speakers. All speakers employ neodymium magnets to increase force, improve control and lower weight. The VHD2.0 has an 80° horizontal and 40° vertical dispersion and left and right versions of the speaker are offered in order to create larger format vertical arrays of the mid high system.



### VHD1.0

The VHD1.0 downfill enclosure features a single 12" mid-bass speaker, an 8" transcoil mid-range woofer and the same 3" compression driver with NVPD treated dome assembly as the VHD2.0 on a wide angle 110° horizontal by 40° vertical horn. The rear of the box has been angled for use as a downfill with the VHD2.0. Like the VHD2.0, VHD1.0 is available in left and right versions for downfill applications.



### VHD1.21

Single 21", Low Q band-pass subwoofer system that adds extension and weight for applications where you want to feel, as well as hear, very high definition audio working down to 23Hz. With an efficiency for two boxes of 102dB, it shares the same footprint as the other VHD subwoofers in a compact, lightweight easily transported package. Alongside the VHD2.16, it forms part of a remarkable five way system.



### VHD2.16

The VHD2.16 double 15" subwoofer is a development of KV2 Audio's ES 2.5 design that has become a standard for compact, high output subwoofer devices. Acoustical design is based on extreme loading of asymmetrical chambers delivering exceptional output and control. The VHD2.16 delivers output in excess of 140dB when configured in a pair. It also functions as a very effective upper bass cabinet when used alongside the ultra low frequency VHD1.21 or VHD2.21 subwoofers as part of a five way system.



### VHD2.18J

The VHD2.18J is a direct radiating bass-reflex speaker containing two 18" high performance transducers. These 18" transducers are designed to withstand very high power levels. The high efficiency, bass-reflex design of the VHD2.18J produces more output than many comparable double 18" enclosures and integrated proprietary flyware allows for fast rigging of multiple cabinets when subwoofers are needed to be flown. An ideal subwoofer for any application where direct radiating bass reproduction is required.



### VHD4.18

The VHD4.18 is a quad 18" subwoofer system comprising of four individual loudspeaker cabinets. The objective is to make the system easy to transport and setup. When assembled, the VHD4.18 system becomes a high efficiency neodymium subwoofer system with immense output. The system was designed with very high sensitivity in mind; it provides 110dB at 1W/1m and a tremendous output of 149dB when running at full power. Each cabinet incorporates a large port area that becomes an optimized horn aperture when all four cabinets are stacked together. The VHD 4.18 subwoofer system delivers extreme output and controlled low frequency resolution.



## VHD2.21

Originally designed for Super Live Audio as part of a VHD system, the VHD2.21 is voiced for Live Music but also excels in the field of Club and Dance Music. In this situation it works very effectively, operating down to 25Hz alongside other VHD products, the smaller ES range, or as an incredible stand-alone subwoofer that can complement any other manufacturers systems.



## VHD4.21

Housing two newly developed large format 21" Woofers the VHD4.21 Active can power an additional VHD4.21 Passive and deliver up to 14,000 Watts of peak power whilst being plugged in to a standard 16A wall socket (at 230V).



## Amplifiers

### VHD2000

The VHD2000 is the amplification and control unit for the VHD 2.0 System. It is a three-way, rack-mounted unit containing high frequency, mid frequency and mid-bass amplifiers. It also houses all processing, electronics and control for the dedicated VHD3200 subwoofer amplifier. Our own hybrid signal processing utilizes the very best technology available from both the analog and digital worlds to offer complete audio system control, equalization, overdrive protection, thermal protection and user adjustable set up parameters. Time alignment and phase correction is done via KV2's revolutionary 20MHz digital delay line, boasting the highest sampling rate of any digital speaker processor available.



### VHD3200

The VHD3200 rack mounted subwoofer amplifier provides power for VHD subwoofers. The VHD3200 contains two separate 1600W amplifiers with individual power supplies, signal paths and I/O within a single four rack space chassis.



## Active Driven Systems

### SL Series

The SL412 and SL2.15 loudspeakers incorporate eye catching slim and stylish cabinet design. Designed to integrate either externally through simple wall mounting, suspension, ground stacking, or internally within wall cavities, the SL412 and SL2.15 can be designed and supplied with custom colors, grill templates and logos offering a flexible and truly designer integrated product.



### SL412

Using KV2 Audio's VHD technology, the SL412 loudspeaker utilizes four 12" low mid-range components and a wide dispersion horn housing a single 8" mid-range and 3" large format NPVD compression driver. This mid-high horn has an extremely coherent wide horizontal dispersion of over 110° while the purpose designed 4 x 12" configuration keeps a tight pattern control dramatically reducing reflections within the 300 to 800Hz frequency range.



### SL2.15

SL2.15 utilizes the same slim line design to allow for an aesthetically pleasing and acoustically punchy system that can virtually disappear against a wall. Using two 15" woofers the SL2.15 is specially designed to maximize bass response from its shallow cabinet design.



### SL3000

The SL3000 Amplifier is a stereo three-way, amplification and control unit specifically designed for the SL412. The SL3000 drives and controls one SL412 per channel and each channel utilizes a high efficiency, 1000-watt current enhancing switching amplifier with a linear active filter design for the low mid-section, a 200-watt class AB amplifier for the mid-range and a similar 100-watt design for the high frequencies. The SL3000 houses all signal processing and amplification as well as providing control for external subwoofer configurations if required.



## Active Driven Systems

### ES Series

As the first product developed by KV2 and continually refined over the last decade, the ES series has become renowned for its unique and versatile capabilities. Its performance has amazed audio professionals around the globe, staggered by the output and clarity of such a compact yet powerful system. The ES Series is an embodiment of KV2 Audio's design philosophies.



#### ES1.0

The ES1.0 is a three-way, very high output, active-driven, mid-high / mid-bass module designed as part of a complete ES speaker system and driven by the EPAK2500/R amplification and control unit. The ES1.0 is compact, lightweight and can be combined with a variety of ES subwoofers. As a single system it offers one of the highest quality portable sound reinforcement solutions on the market today. When coupled with another ES1.0 (running two horizontally per side) it becomes an even more powerful tool, providing peak SPL of 139dB and a throw of up to 40metres for applications of up to 3,000 people.



#### ES1.5

The ES1.5 is a single 15", extremely compact, high output subwoofer weighing just 30.8 kg (67.9lbs). Designed as a part of the ES speaker system when used alongside the ES1.0 singularly or in multiples of up to three, the system is powered by the EPAK2500/R amplification and control unit ensuring fast, easy set up with perfect balance and complete control. The EPAK2500/R also allows up to two ES1.5's to be used alongside an ES1.8, where the ES1.5 can either be flown alongside an ES1.0 or ground stacked with the ES1.8.



#### ES1.8

The ES1.8 is a high-output, reflex horn loaded, single 18" subwoofer, designed as a part of the ES speaker system. It provides tight, up front, low frequency extension with authority, attack and definition. Designed to be used in pairs, or with up to two ES1.5, the ES1.8 can achieve high output levels consistently and safely. Alongside the ES1.0 and EPAK2500/R, the ES1.8 offers a very firm foundation on which to build a powerful ES system.



#### ES2.5 / ES2.6

The ES2.5 (4 ohms) and ES2.6 (8 ohms) are double 15", high output subwoofers designed as a part of the ES speaker system. Using new concepts in twin asymmetrical acoustic chamber design they deliver very high speaker loading and intense output from a relatively small cabinet footprint. Reproducing low frequencies with very high transient content they are ideal for use in live applications or as part of a five-way ES system utilizing VHD1.21 or VHD2.21 subwoofers. Together with the ES1.0 and EPAK2500/R, the ES2.5/2.6 delivers the highest dynamic range of any other comparable system providing new levels of clarity, depth and resolution.



## Amplifiers

### EPAK2500 & EPAK2500R

The EPAK2500 is a four-way, active control and amplification unit specially designed in a road case to drive one side of an ES system whilst the EPAK2500R is the rack mount version. The meticulously designed control and electronics inside the EPAK 2500/R constantly monitor and preserve the relationship between each amplifier and component, delivering exactly the right amount and type of power throughout the system. A multi position switch allows you to select from various subwoofer combinations with subwoofer, HF and overall level attenuation all user adjustable. Both the EPAK2500 and EPAK2500R utilize KV2's industry leading 20MHz sampling for on board time alignment and phase correction of all components in the ES system.

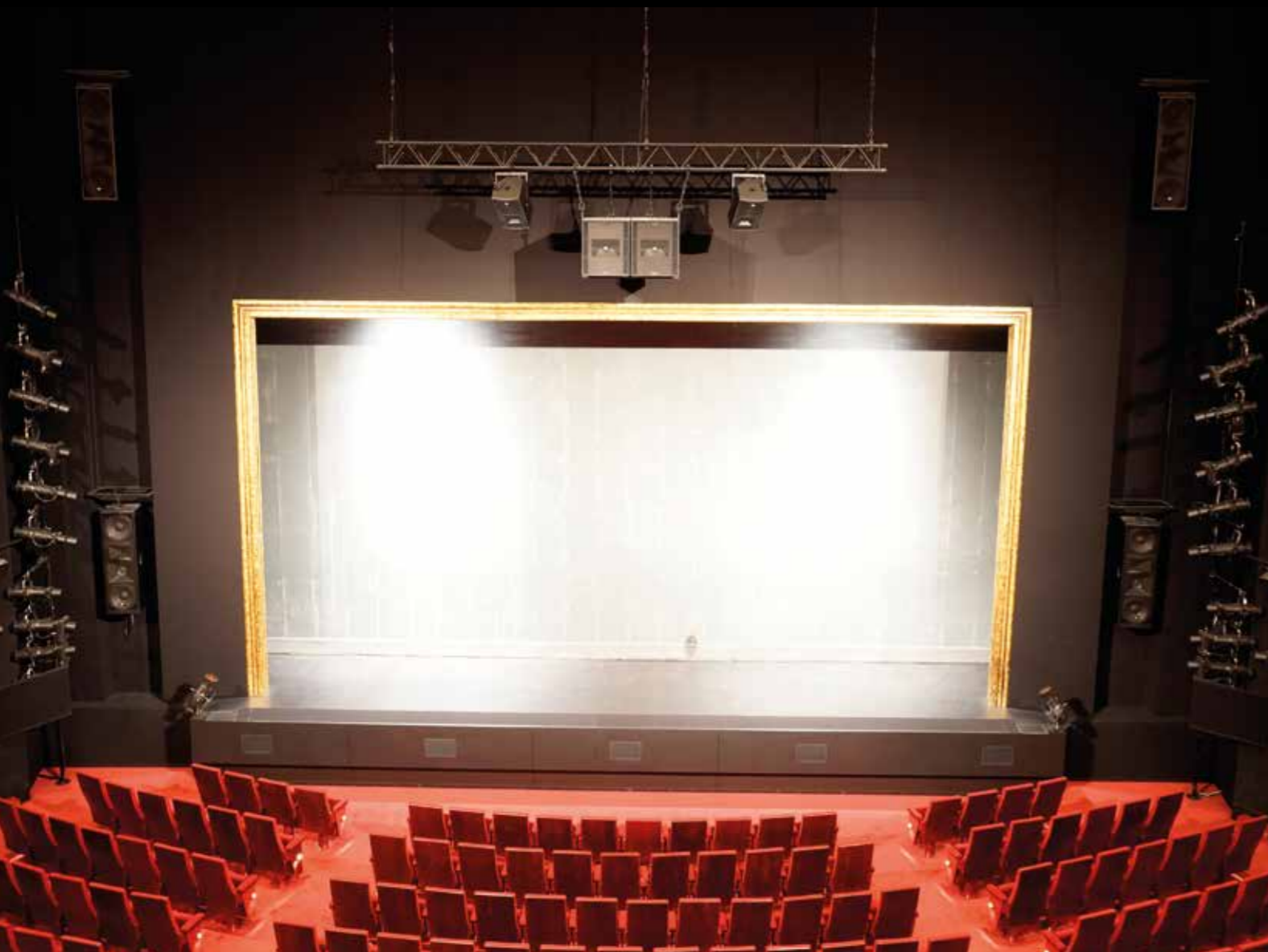


## Active Driven Systems

### ESR Series

The ESR series is specifically designed for applications where a one box solution is needed to give clear, detailed and full-range reproduction over a wide area. The ESR212 and ESR215 are three-way, full range enclosures with wide dispersion characteristics. They can be used vertically for Theatre, House of Worship and Leisure Venue installations or horizontally mounted to give excellent coverage over tiered seating areas for stadium and grandstand type applications.

Similar to our popular ES, VHD and SL series the ESR cabinets are three way actively driven by proprietary amplifiers that deliver fully equalized, time aligned and accurate signal to each of the components. Two ESR cabinets can be driven by a single stereo ESR2800 or ESR3000 unit which house all signal processing and amplification as well as providing control for external subwoofer configurations if required.



### ESR212

The ESR212 is a full-range 3-way loudspeaker system designed for use with the ESR2800 tri-amplified stereo electronic control pack. The ESR212 loudspeaker system features state of the art transducer design. Comprising of two 12" woofers, a 6" mid-range driver and a 1" compression driver, the ESR212 delivers full-range high definition audio over large spaces with a dispersion of 90° horizontal by 40° vertical. With a fully rotatable horn the ESR 212 can be installed either vertically or horizontally.



### ESR215

The ESR215 is a large format full-range 3-way loudspeaker system with a wide horizontal dispersion of 110°. Designed for use with the ESR3000 tri-amplified stereo electronic control pack the ESR215 loudspeaker system features two 15" woofers, an 8" mid-range driver and the same large scale NPVD 3" compression driver found in KV2 Audio's VHD mid-hi enclosures. With a wide and smooth frequency response the ESR215 is ideal for theatre or stadium applications.



## Amplifiers

### ESR2800 & ESR3000

The ESR2800 & ESR3000 are stereo three-way, amplification and control units specifically designed for the ESR212 and ESR215 full-range loudspeakers. They house all signal processing and amplification needed as well as providing control and crossover function for external subwoofers if required. Each unit incorporates six amplifiers consisting of two 100-watt, Class AB, push pull, low intermodulation high frequency amplifiers, two 200-watt, Class AB, push pull, low intermodulation mid-range amplifiers and two 1000-watt, high-efficiency, current-enhancing switch mode technology bass amplifiers. The ESR2800 and ESR3000's stereo configuration powers two ESR212 and ESR215 cabinets respectively.



## Passive Speakers & Amplifiers

### ESD Series

In developing the ESD series of passive loudspeakers KV2 designed a unique revolutionary analog delay line circuit that provides time alignment and phase correction passively, substantially improving clarity and definition. We have carefully tailored the frequency response and sensitivity of each loudspeaker so minimal or no outboard control is needed when installed in venues with varied impedances for the different cabinets to suit a variety of applications.

Enclosed within Baltic Birch cabinets the conservative aesthetic and tactile feel present an air of quality that matches the audio performance. Holding true to our philosophy of achieving the best sound quality possible, we have created a speaker range that incorporates all of the economical and easy installation aspects of passive speakers without the need for expensive external processors.



#### ESD5

The ESD5 is a 2-way full-range, ultra-compact low profile passive loudspeaker with performance that defies its size. The ESD5 is perfect for discreet installations and audiovisual presentations. The carefully selected trapezoidal design allows neat installation directly to ceilings via the dedicated ceiling plate whilst also excelling in under balcony or front fill applications in theatres and performing arts spaces. The ESD5's high impedance capability means that up to sixteen units can be run from a single suitable quality stereo amplifier.



#### ESD25

The ESD25 is a 2-way full-range, ultra-compact low profile passive loudspeaker with increased lower bass extension than the smaller ESD5. Its opposing driver design assists with pattern control of the low mid frequencies reducing reflections in reverberant spaces and improving intelligibility. Delivering exceptional clarity for speech and program reproduction the ESD25 is ideal for corporate presentations, discreet installations, or fill applications in theatres and performing arts spaces.



#### ESD6

The ESD6 is a 2-way full-range, compact passive loudspeaker with output that defies its size. Delivering amazing clarity for speech and program reproduction, the ESD6 is perfect for discreet installations and audio-visual presentations where sound quality is paramount but size also matters. The ESD6's high impedance capability means that up to sixteen units can be run from a single suitable quality stereo amplifier to provide high fidelity background reinforcement throughout a venue.



#### ESD10

The ESD10 is a 2-way full-range, high output passive loudspeaker incorporating a 10" trans-coil woofer and rotatable wide dispersion 100° horizontal by 80° vertical horn. The ESD10 provides a smooth high fidelity response that delivers sound quality and level that is superior to many larger competing products. The ESD10 is ideal as a primary PA speaker with or without additional subwoofers or as in-fill for larger systems.





## ESD12

The ESD12 is a 2-way full-range, high output passive loudspeaker that provides unmatched clarity and definition in a simple elegant package. The ESD12 utilizes a 12" trans-coil woofer and the same 3" NVPD large format compression driver found in our flagship VHD products, which has one of the lowest distortion ratings on the planet. Combined with our unique delay line technology the ESD12 delivers a beautifully balanced, phase coherent and accurate compact, 2-way passive solution that is adaptable to a wide range of applications.



## ESD15

The ESD15 is a 3-way full-range, high output passive loudspeaker that incorporates a unique coaxial 15" transducer with a 1.75" Nitride Titanium Neodymium Compression Driver on a wide dispersion 80° horizontal by 60° vertical horn. Whilst most coaxial speakers will try to cover the full frequency response, the ESD15's coaxial driver only covers bass and high frequencies leaving the all-important mid-range to a 6" neodymium speaker also mounted on a large 80° horizontal by 60° vertical horn. This resolves the issue of the 15" driver trying and failing to reproduce mid-range, a common problem with conventional coaxial designs.



## ESD36

The ESD36 is a 3-way full-range, compact passive loudspeaker system for speech and music reproduction. The ESD36 features a 6" driver dedicated to high quality mid-range reproduction and a further two low frequency 6" drivers for enhanced bass extension with a wide dispersion 100° by 100° horn section housing a 1" compression driver. Delivering impressive full-range response the ESD 36 has an aesthetically pleasing narrow design ideal for House of Worship and corporate applications where space and sightlines need considering.



## ESD1.12

The ESD1.12 is a passive version of the active EX1.2mkII 12" subwoofer and features the same high quality ferrite woofer. This subwoofer's low profile and size makes it ideal for discreet applications. With power handling of 600-watts the ESD1.12 is capable of delivering tight, fast, controlled bass response at high output levels from a compact cabinet.



## ESD1.15

The ESD1.15 is a passive version of the active EX1.5 subwoofer featuring a single 15" ferrite woofer with power handling of 600-watts. Offering a peak SPL of 130dB the ESD1.15 produces considerable output yet in true KV2 style retains a compact footprint. Multiple ESD1.15's can be stacked together to create a powerful and scalable subwoofer system.



## ESD1.18

The ESD1.18 is the passive version of the incredible active EX1.8. The ESD1.18 features a ferrite woofer with power handling capabilities of 1000-watts and makes a firm foundation from which to build an incredibly powerful ESD system, or as a stand-alone subwoofer to enhance any existing passive or active system.



## Amplifiers

### ESP2000

The ESP2000 amplifier incorporates KV2's Super Live Audio design principles, delivering very low distortion characteristics, even under extreme operation. Equally at home as a reference amplifier in a high-end recording studio or driving a large-scale live audio system, the ESP2000 is a sonically superb unit featuring two 1000-watt Class H amplifier channels. The ESP2000 incorporates the same cooling system as other KV2 amplifiers where only the heat sinks are exposed protecting the internal electronics.



### ESP4000

The ESP4000 builds on the ESP2000 and is an ultra high definition 4-channel rack mountable power amplifier from KV2 Audio, specifically designed for optimized performance with ESD loudspeakers, as well as with other passive systems. The ESP4000 features four 1000-watt Class H amplifier channels with two power supplies to ensure continuous delivery of full power within a single four rack space chassis.



# Active Speakers

## EX Series

There are lots of powered speakers, but at KV2 Audio building an active speaker goes beyond bolting a Class D amplifier to the back of a box. Precisely selected amplifier topologies have been designed to deliver power through a unique LF amplifier for perfect control of the woofer, working alongside an HF amplifier implementing a discreet, classic class AB push-pull topology and an Intermodulation Distortion (IMD) restricting output transformer. Our EX Subwoofers each use a version of our proprietary high efficiency, high current switching amplifiers delivering efficiency of over 90% and offering incredibly high quality bass performance and total flexibility from standalone, small footprint cabinets.



### EX6

The EX6 is a 2-way full-range, compact active speaker system producing output that defies its size. With amazing clarity for musical reproduction the EX6 is perfect for discreet installations or audio-visual presentations where sound quality is paramount but size also matters. The EX6 features state of the art components including an NVPD compression driver, 6" woofer and complete on-board control with electronic crossovers, phase alignment, equalization and speaker protection integrated into the EX6's amplifier module.



### EX10

The EX10 is a 2-way full-range, high-output active speaker system. Despite its 10" woofer and remarkably small footprint it successfully takes on many larger 12" models and is favored by audio-visual and rental companies all over the world for its sheer quality and tremendous output. On-board electronics ensure fast, easy set up and complete control with electronic crossovers, phase alignment, equalization and speaker protection integrated into the EX10's amplifier module. The EX 10 can also be used as a floor monitor.



### EX12

The EX12 further builds on the success of the EX6 and EX10 by implementing the revolutionary 3" NVPD large format compression driver found in our flagship VHD range of products. This makes for one of the most perfectly balanced and accurate 2-way active boxes available on the market today. Complete onboard control courtesy of electronic crossovers, phase alignment, equalization and speaker protection are all integrated into the EX12's amplifier module. The EX 12 can also be used as a floor monitor.



### EX15

The EX15 introduces a 3-way design to the active EX loudspeaker range and incorporates a unique coaxial 15" transducer with a 1.75" Nitride Titanium Compression Driver on a wide dispersion 80° horizontal by 60° vertical horn. Whilst most coaxial speakers will try to cover the full frequency response, the EX15's coaxial driver only covers bass and high frequencies leaving the all-important mid-range to a horn loaded 6" neodymium speaker. This allows the 15" to deliver accurate and deep bass, an area in which it excels, rather than trying to also reproduce a compromised mid range above its natural frequency window achieving optimum speed and dynamic musical performance.



### EX26

The EX26 is a unique 2-way full-range active loudspeaker system that provides superb vocal intelligibility and high quality musical reproduction. Its 100° by 100° horn allows for wide, even coverage making it ideal for audio-visual presentations, Houses of Worship, meeting rooms and various other applications where high quality speech reproduction is required. With a neodymium compression driver and two 6" neodymium mid - bass woofers the EX26 is a compact, aesthetically pleasing and easily portable solution that also excels as an ideal under balcony solution when used in its horizontal orientation.



### EX1.2MkII

The EX1.2MkII is a compact single 12" active subwoofer system. With an efficient passive cooling system the EX1.2MkII – like all KV2 Audio products - boasts output that belies its compact, low profile cabinet size. Its dimensions make it ideal for discreet installations, as it can be installed either horizontally or vertically under seating and in furniture surrounds, or as a portable solution for corporate applications.



## EX1.5

The EX1.5 is a compact active subwoofer system featuring a single 15" ferrite woofer and a 500-watt high efficiency power amplifier with an efficient passive cooling system. Offering a peak SPL in excess of 130dB, the EX1.5 produces considerable output, yet in true KV2 style retains a small footprint. The EX1.5 can be deployed in multiples giving a compact yet scalable high output subwoofer solution.



## EX1.8

The EX1.8 is a high output active subwoofer housing a revolutionary VHD technology 18" neodymium woofer. The EX1.8 features an impressive 1000-watts of power courtesy of KV2 Audio's switching amplifier technology and provides a very firm foundation on which to build a powerful EX system, or as a standalone subwoofer to enhance any existing system.



## EX2.2

The EX2.2 is a compact high output active double 12" bass module. Like the other subwoofers in the EX range on-board electronics include a stereo crossover with high pass outputs and full overdrive protection. Featuring KV2 Audio's switching amplifier technology, precision manufactured woofer designs and a high efficiency, twin chamber acoustic design, the EX2.2 delivers tight, fast, controlled bass response at very high output levels from a small cabinet footprint.



## EX2.5 MkII

The EX2.5MkII is a double 15" subwoofer and the 'active' brother of the ES2.6 passive bass module. It provides real depth and power where high bass output is required. The product uses the same low frequency amplifier found inside the EPAK2500/2500R and features in-built stereo crossovers, high pass outputs, and full overdrive protection. The EX2.5MkII also has the capability to power an additional ES 2.6 subwoofer at the same time, directly from its own amplifier via a dedicated output socket.



## Passive Speakers & Amplifiers

### ESM Series - Stage Monitors

For years people have been asking KV2 to produce foldback monitors that had the same sound characteristics as EX and ESD ranges. Many foldback wedges utilize on board active technology or bi-amping and external processing to achieve optimum output. In developing the ESM series of stage monitors KV2 implemented the same unique revolutionary analog delay line circuit used in the ESD series to provide time alignment and phase correction passively, offering performers on stage the same incredible experience as the audience members without the need for expensive external processors.



### ESM26

The ESM26 is a purpose built stage monitor with incredible clarity and presence, especially in the all-important vocal range achieved by incorporating two high quality 6" drivers and a 1.75" compression driver on a 100° by 100° horn. The ESM26 utilizes KV2's revolutionary passive delay line technology for optimum output and feedback rejection. A full width bass port along the bottom of the cabinet couples with the floor to deliver bass response comparable to monitors twice its size.



### ESM12

The ESM12 is a 2-way full-range, low profile passive monitoring solution with a 12" trans-coil neodymium woofer and the same 3" NVPD large format compression driver found in our flagship VHD products. Available as a left or right version, the ESM12 also utilizes KV2's revolutionary passive delay line for optimum output and feedback rejection. Housed in a professional Baltic Birch cabinet with a protective Polymer coating and heavy-duty grill, the ESM12 is designed to withstand the rigors of the road and can also be used as a traditional PA with the inclusion of a pole mount.



## Processors

# Processors

In keeping with our focus on the highest possible sound quality we also manufacture a number of electronic processors that integrate into both ours and other systems to provide the best achievable signal path from source to speaker.



## LD4

The LD4 is a four-channel line driver designed to maintain audio signal integrity over long cable lengths. The LD4 eliminates standing waves and signal impurities resulting in the delivery of a high quality audio signal no matter what the cable length. Each channel features an individual transformer based power supply with insulated grounding. Circuitry is designed to provide excellent resolution of signal with very high dynamic content as found in live sound applications.



## SD8

The SD8 is an eight-channel stage preamp designed with individual line drivers that maintain audio signal integrity over long cable lengths. The SD8 features eight independent mic inputs with gain control adjustment, -20dB pad and 48V phantom power. Each input has two outputs allowing signal routing to two separate locations such as front of house and monitoring consoles. A five bar LED display provides signal level information and a rotary knob provides 0db to +30dB of gain control.



## SAC2

The SAC2 is a 2 in 4 out system controller and features a musical four-band equalizer that allows users to quickly shape the sound as required without affecting the overall linear response. Two notch filters per channel give further adjustment and enable the quick removal of dominant room resonances where necessary. The switchable crossover points of 70Hz or 120Hz can be independently applied to the Low and High Outputs or can be bypassed altogether and a transparent limiter feature is also included to maintain the desired level without affecting the quality or dynamic performance of the system. A truly impressive controller which when deployed anywhere in the signal chain gives an immediate improvement in definition, resolution and dynamic range.



## SDD3

The SDD3 is a true technology statement by KV2. It utilizes our groundbreaking 20MHz PDM digital conversion process developed for time alignment applications throughout our speaker range. The SDD3 incorporates high quality line driver outputs allowing users to deliver pristine audio signal to delay speakers or under balcony fills over 100m from the source. The ultimate choice for the distribution of time corrected audio signal, the SDD3 has two Super Digital channels that will deliver up to 400 milliseconds of delay as well as a third channel with up to 10 milliseconds of delay specifically for setting up cardioid subwoofer set-ups.



## COMPEX

Using KV2's Super Analog technology the COMPEX is a signal processor designed to optimize poor quality recordings for playback at high volume levels through the use of an optical audio compressor, with level dependent filters that reduce unpleasant high frequency distorted signals from bad signal sources and recordings. The COMPEX features a very high quality harmonics expander, which adds harmonic content to the depleted high frequencies in such recordings.



## VHD Preamp

The VHD Preamp is a Very High Definition, stand-alone microphone and stereo input signal mixer with switchable A-B outputs. Primarily designed as a high quality preamp enabling the quick and easy comparison of two individual sound systems using the same source. Both outputs feature line drivers ensuring signal integrity over long cable lengths and create a great sounding and versatile tool for a range of applications.



## DI Boxes

### JK Series

KV2 Audio's JK Series of DI Boxes and Audio Tools provide the ultimate solution in transferring unbalanced signals to balanced signals. They deliver crystal clear, distortion-free audio from any source over greater distances. KV2 has optimized the use of phantom power in the JK series with a switching power supply, providing a huge 20-volts of peak power on the internal rails. This allows the JK Series to deliver 50 Ohms on the XLR output giving true line driver capability. With line drivers delivering a high quality balanced signal on a low impedance output this gives the JK Series the ability to deliver greater audio integrity and output over any cable length and up to four times further than it's nearest competitor. It also means far greater headroom - nearly double that of any other phantom powered unit.



**KV2 Audio R&D team**

#### JK1

The JK1 features two 1/4" jack inputs with a mix or parallel function, a fixed low cut filter and 15dB pad, as well as Phase Shift and Ground Lift switches. The JK1 is ideal for connection of single keyboards, guitars and instrument amplifier outputs or combining two inputs via the mix function.



#### JK2

The JK2 features two 1/4" jack inputs with parallel monitor outputs as well as RCA inputs. The JK2 has two completely separate channels and can be used with two different instruments, or stereo keyboards and other two channel sources such as laptops, computers and tablets. The JK2 features a variable pad, Phase Shift and Ground Lift switch.



#### JKA

The JKA is a dedicated DI for acoustic instruments. The JKA features a high-impedance 1/4" jack input capable of receiving signal from all types of pick-ups. A +10dB gain boost is available for low-level instruments. The JKA also features a tunable notch filter for eliminating the resonant frequency in an acoustic instrument, reducing feedback issues.



#### JKP

The JKP serves as a universal passive DI box with low output impedance. The JKP features one XLR input and two 1/4" jack inputs in parallel. The JKP is designed for multiple instrument connection such as keyboards, guitars and instrument amplifiers outputs. The JKP also features phantom power supply pass-through for condenser microphone connection and output signal Line Driving.



#### JKT

The JKT is the perfect tool for checking and tuning PA systems. Phantom powered, it has one combined input/output XLR and one combined XLR and 1/4" jack output. The JKT delivers a full range of tones from 20Hz through to 30KHz, as well as both White and Pink Noise.



# Technical Specifications

## VHD5.0 & VHD8.10

Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Full Range mode -3dB Response	Crossover Point	Dimensions H/W/D	Weight
147dB	150dB	70Hz to 20kHz	45Hz to 22kHz	50Hz to 20kHz	70Hz, 400Hz, 2.0kHz	<b>VHD5.0</b> / 1125mm (44.29") x 1110mm (43.7") x 500mm (19.69") <b>VHD8.10</b> / 640mm (25.20") x 1110mm (43.7") x 500mm (19.69")	<b>VHD5.0</b> / 151kg (332.2lbs) <b>VHD8.10</b> / 92 kg (202.4lbs)

## VHD Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>VHD2.0</b>	139dB	142dB	100Hz to 22kHz	85Hz to 30kHz	100Hz, 450Hz, 2.2kHz	933 mm (36.72") x 700 mm (27.55") x 495 mm (19.48")	70 kg (154.0lbs)
<b>VHD1.0</b>	134dB	137dB	100Hz to 22kHz	85Hz to 30kHz	100Hz, 450Hz, 2.2kHz	660 mm (25.98") x 700 mm (27.55") x 495 mm (19.48")	45 kg (99lbs)
<b>VHD2.16</b>	143dB (4x VHD2.16)	147dB (4x VHD2.16)	37Hz to 100Hz	32Hz to 130Hz	100Hz to 130Hz	600 mm (23.62") x 700 mm (27.55") x 750 mm (29.52")	65 kg (143lbs)
<b>VHD2.18J</b>	135dB	138dB	32Hz to 200Hz	28Hz to 250Hz	70Hz to 150Hz	570 mm (22.44") x 1080 mm (42.52") x 800 mm (31.5")	92 kg (202.83lbs)
<b>VHD4.18</b>	146dB (4x VHD4.18)	149dB (4x VHD4.18)	36Hz to 100Hz	31Hz to 100Hz	100Hz	600 mm (23.62") x 700 mm (27.55") x 750 mm (29.52")	52 kg (114.4lbs)
<b>VHD1.21</b>	135dB (2x VHD1.21)	137dB (2x VHD1.21)	29Hz to 60Hz	23Hz to 60Hz	60Hz	700 mm (27.55") x 700 mm (27.55") x 750 mm (29.52")	60 kg (132.0lbs)
<b>VHD2.21</b>	143dB (2x VHD2.21)	146dB (2x VHD2.21)	34Hz to 180Hz	28Hz to 240Hz	60Hz to 120Hz	700 mm (27.56") x 1080 mm (42.52") x 1200 mm (47.24")	155 kg (341.7lbs)
<b>VHD4.21</b>	147dB	150dB	34Hz to 180Hz	28Hz to 240Hz	70Hz	700 mm (27.56") x 1080 mm (42.52") x 1200 mm (47.24")	Active 175kg (386lbs) Passive 155kg (342lbs)

## SL Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>SL412</b>	134dB	137dB	70Hz to 22kHz	58Hz to 22kHz	400Hz, 2.5kHz	670 mm (26.38") x 1080 mm (42.52") x 300 mm (11.81")	60 kg (132.28lbs)
<b>SL2.15</b>	129dB	132dB	40Hz to 500Hz	35Hz to 500Hz	70Hz	960 mm (37.8") x 1080 mm (42.52") x 350 mm (13.78")	61 kg (134.5lbs)

## ESR Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>ESR212</b>	128dB	131dB	38Hz to 22kHz	28Hz to 28kHz	500Hz, 2.5kHz	1135 mm (44.69") x 447 mm (17.6") x 444 mm (17.48")	45 kg (99.2lbs)
<b>ESR215</b>	132dB	135dB	35Hz to 22kHz	28Hz to 28kHz	400Hz, 2.5kHz	1515 mm (59.65") x 470 mm (18.50") x 500 mm (19.69")	71 kg (156.53lbs)

## ES Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>ES1.0</b>	131dB	134dB	130Hz to 20kHz	85Hz to 28kHz	130Hz, 500Hz, 2.5kHz	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")	34 kg (74.8lbs)
<b>ES1.5</b>	127dB (134dB - 3x ES1.5)	130dB (137dB - 3x ES1.5)	40Hz to 130Hz	36Hz to 130Hz	130Hz	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")	30.8 kg (67.9lbs)
<b>ES1.8</b>	131dB (136dB - 2x ES1.8)	134dB (139dB - 2x ES1.8)	37Hz to 130Hz	33Hz to 130Hz	130Hz	600 mm (23.62") x 700 mm (27.55") x 750 mm (29.52")	52 kg (114.4lbs)
<b>ES2.5</b>	134dB	137dB	38Hz to 130Hz	34Hz to 130Hz	130Hz	600 mm (23.62") x 700 mm (27.55") x 750 mm (29.52")	69 kg (151.8lbs)
<b>ES2.6</b>	132dB (137dB - 2x ES2.6)	135dB (140dB - 2x ES2.6)	38Hz to 130Hz	34Hz to 130Hz	130Hz	600 mm (23.62") x 700 mm (27.55") x 750 mm (29.52")	69 kg (151.8lbs)

## ESD Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>ESD5</b>	112dB	115dB	130Hz to 22kHz	74Hz to 28kHz	3.0kHz	150 mm (5.9") x 316 mm (12.4") x 224.7 mm (8.84")	7 kg (15.4lbs)
<b>ESD25</b>	118dB	121dB	120Hz to 22kHz	72Hz to 28kHz	3.0kHz	150 mm (5.9") x 442 mm (17.4") x 260 mm (10.24")	9.6 kg (21.2lbs)
<b>ESD6</b>	117dB	120dB	68Hz to 20kHz	51Hz to 28kHz	2.0kHz	390 mm (15.35") x 220 mm (8.66") x 240 mm (9.45")	9.5 kg (20.9lbs)
<b>ESD10</b>	125dB	128dB	65Hz to 20kHz	56Hz to 30kHz	1.8kHz	514 mm (20.32") x 310 mm (12.20") x 324 mm (12.76")	16.5 kg (36.38lbs)
<b>ESD12</b>	127dB	130dB	55Hz to 22kHz	50Hz to 30kHz	1.2kHz	619 mm (24.37") x 368 mm (14.48") x 368 mm (14.48")	23 kg (50.7lbs)
<b>ESD15</b>	126dB	129dB	48Hz to 18kHz	45Hz to 28kHz	500Hz, 2.5kHz	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")	35 kg (77.2lbs)
<b>ESD36</b>	122dB	125dB	65Hz to 25kHz	57Hz to 30kHz	600Hz, 2.5kHz	730.5 mm (28.76") x 220 mm (8.66") x 244 mm (9.60")	17.6 kg (38.8lbs)
<b>ESD1.12</b>	124dB	127dB	38Hz to 150Hz	34Hz to 170Hz	80Hz to 150Hz	379.5 mm (14.94") x 800 mm (31.49") x 400 mm (15.75")	26.7 kg (58.8lbs)
<b>ESD1.15</b>	127dB	130dB	37Hz to 150Hz	34Hz to 170Hz	80Hz to 150Hz	510 mm (20.08") x 550 mm (21.65") x 570 mm (22.44")	34.2 kg (75.4lbs)
<b>ESD1.18</b>	131dB	134dB	30Hz to 150Hz	28Hz to 170Hz	80Hz to 150Hz	612 mm (24.1") x 700 mm (27.56") x 750 mm (29.5")	52 kg (114.7lbs)

## EX Series

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>EX6</b>	117dB	120dB	68Hz to 20kHz	62Hz to 28kHz	2.0kHz	395 mm (15.55") x 220 mm (8.66") x 274 mm (10.78")	12 kg (26.4lbs)
<b>EX10</b>	126dB	129dB	65Hz to 20kHz	55Hz to 28kHz	1.6kHz	514 mm (20.23") x 310 mm (12.20") x 326 mm (12.83")	22 kg (48.4lbs)
<b>EX12</b>	127dB	130dB	55Hz to 22kHz	45Hz to 30kHz	1.1kHz	596 mm (23.46") x 368 mm (14.49") x 368 mm (14.49")	29 kg (63.8lbs)
<b>EX15</b>	129dB	132dB	44Hz to 18kHz	38Hz to 22kHz	500Hz, 2,7kHz	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")	43 kg (94.8lbs)
<b>EX26</b>	124dB	127dB	80Hz to 20kHz	65Hz to 28kHz	2.5kHz	570 mm (22.44") x 220 mm (8.66") x 274 mm (10.78")	16 kg (35.2lbs)
<b>EX1.2MKII</b>	124dB	127dB	38Hz to 120Hz	32Hz to 120Hz	120Hz	370 mm (14.57") x 800 mm (31.49") x 400 mm (15.75")	32 kg (70.5lbs)
<b>EX1.5</b>	127dB	130dB	38Hz to 120Hz	32Hz to 120Hz	120Hz	510 mm (20.08") x 550 mm (21.65") x 570 mm (22.44")	43kg (94,8 lbs)
<b>EX1.8</b>	131dB	134dB	30Hz to 125Hz	27Hz to 125Hz	125Hz	612 mm (24.1") x 700 mm (27.56") x 750 mm (29.5")	65 kg (143.3lbs)
<b>EX2.2</b>	130dB	133dB	45Hz to 125Hz	40Hz to 125Hz	125Hz	491 mm (19.33") x 594 mm (23.38") x 616 mm (24.25")	49 kg (107.8lbs)
<b>EX2.5MKII</b>	134dB	131dB	38Hz to 125Hz	34Hz to 125Hz	125Hz	711.5 mm (28.0") x 602.6 mm (23.72") x 750 mm (29.52")	97 kg (214lbs)

## ESM Series - Stage Monitors

	Max SPL Long-term	Max SPL Peak	-3dB Response	-10dB Response	Crossover Point	Dimensions H/W/D	Weight
<b>ESM26</b>	123dB	126dB	70Hz to 16kHz	54Hz to 28kHz (half space)	2.5kHz	337.3 mm /13.28" x 370 mm /14.57" x 454.5 mm /17.89"	15 kg (33.8lbs)
<b>ESM12</b>	127dB	130dB	55Hz to 22kHz	41Hz to 30kHz (half space)	1.2kHz	368 mm (14.48") x 606 mm (23.86") x 368 mm (14.48")	23 kg (50.7lbs)

## Processors

### LD4

-1dB Response	6Hz to 500kHz
Dynamic Range	>120dB
Total Harmonic Distortion	<0.0005%
Max. Output Voltage	14V / 7V (50Ω) RMS
Max. Output Current	450mA
Input Channels	4x
Input Impedance	20kΩ

Line input	Gain (50Ω) 0dB
Signal Output Channels	4x
Output Impedance	50Ω
Operating Voltage	115V / 230V
Operating Voltage Range	100 to 120V @ 60Hz   230 to 250V @ 50Hz
Dimensions H/W/D	44 mm (1.7"), 482.6 mm (19.0"), 202.3 mm (7.9")
Weight	2.9 kg (6.5lbs)

### SDB

-1dB Response	6Hz to 500kHz
Dynamic Range	>120dB
Total Harmonic Distortion	<0.0005%
Max. Output Voltage	14V / 7V (50Ω) RMS
Max. Output Current	450mA
Input Channels	8x
Input Impedance	20kΩ

Mic input	0 to +30dB Gain, pad -20dB
Signal Output Channels	8x2
Output Impedance	50Ω
Operating Voltage	115V / 230V
Operating Voltage Range	100 to 120V @ 60Hz   230 to 250V @ 50Hz
Dimensions H/W/D	89.0 mm (3.0"), 482.6 mm (19.0"), 203 mm (7.9")
Weight	5.5 kg (12.1lbs)

### SAC2

-1dB Response	20Hz to 40kHz
Dynamic Range	>115dB
Channel Crosstalk	>60dB
Total Harmonic Distortion	<0.005%
Max. Output Voltage	14V / 7V (50Ω) RMS
Max. Output Current	450mA
Input Channels	2
Input Impedance	20KΩ (balanced)
Line input	XLR
Signal Output Channels	4
Output Impedance	50Ω
Level Control	-15 / +10dB
System setup	Crossover / Bypass

Gain	-10 / +10dB
Phase	0° / 180°
Crossover	70 / 120Hz, Butterworth 12dB/octave
High Pass Filter	20 / 40Hz
Equalization	4-band equalizer
Notch Filter	2 per channel
Loudness bass enhancement	+6dB @ 60Hz
Volume Limiter	Fast/Slow / -15 + 10dB
Operating Voltage	115V / 230V
Operating Voltage Range	90 to 130V@60Hz   180 to 260V@50Hz
Dimensions H/W/D	44.5 mm (1.75"), 483 mm (19.0"), 201 mm (7.9")
Weight	3.2 kg (7.05lbs)

### SDD3

-1dB Response	2Hz to 40kHz
-10dB Response	2Hz to 100kHz
Sampling Frequency	20MHz, PDM
Dynamic Range	>105dB
Channel Crosstalk	90dB
Signal to Noise Ratio	105dB
Total Harmonic Distortion	0.005%
Input Channels	2 Full range + 1 Subwoofer
Input Impedance	20KΩ (balanced)
Max. Input voltage	+14dBu
Line input	XLR
Signal Output Channels	2 Full range + 2 Subwoofer
Output Impedance	50Ω
Through Signal Output	XLR

Delay Signal Output	XLR
Level Control	-10 / +10dB
Subwoofer Level Control	-10 / +10dB
System setup	Normal / Cardioid mode
Delay Range	0.012ms to 393.216ms, step 0.003ms
Full Range Mode	2 channels
Phase	0° / 180°
High Pass Filter	OFF to 260Hz
Memory	30
Operating Voltage	115V / 230V
Operating Voltage Range	90 to 130V@60Hz   180 to 260V@50Hz
Dimensions H/W/D	44 mm (1.75"), 482.6 mm (19.0"), 203 mm (7.9")
Weight	3.6 kg (7.94lbs)

### COMPEX

-3dB Response	20Hz to 100kHz
Dynamic Range	>130dB
Channel Crosstalk	90dB
Signal to Noise Ratio	110dB
Total Harmonic Distortion	0,001%
Input Channels	2
Input Impedance	20KΩ (balanced)
Line input	XLR
Signal Output Channels	2
Output Impedance	50Ω
Through Signal Output	XLR
Level Control	-10 / +10dB

System setup	Bypass (remote controlled)
Harmonics	Drive, 0 to 10
Equalization	Level dependent
Indicators	2x 2 Level LED bar graphs
Threshold	∞ to -20dB
Ratio	1:3
Range	0 to 10
Operating Voltage	115V / 230V
Operating Voltage Range	90 to 130V@60Hz   180 to 260V@50Hz
Dimensions H/W/D	44 mm (1.7"), 482.6 mm (19.0"), 198 mm (7.8")
Weight	2.7 kg (5.96lbs)

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# Step Beyond the Limitations of Line Array