

VHD

VERY HIGH DEFINITION



KV²
audio

THE VHD SYSTEM

The VHD High performance Installation and Touring system from KV2 has been designed to revolutionise the Live Sound market in terms of power, coverage, size and weight.

Challenging the more common application of Line Array Technology VHD builds on the KV2 philosophy of Point Source theory, offering drastically reduced distortion figures (up to 100 times lower than many comparable systems) and a hugely increased dynamic range that takes us to a new level of reproduction previously unheard in large scale audio systems.

At KV2 Audio we meticulously consider the audibility limits of the human ear, and intensively focus on creating technologies that make the listening experience truly superb. With VHD, we have created an active driven, vertically arrayable loudspeaker system that overcomes more obstacles and barriers to high definition audio reproduction than any other loudspeaker system. In developing the VHD series of products, we created something truly unique, a true blend of technology and power. KV2 Audio developed a comprehensive four step solution that relies on remarkable technology and a unique vision.



Illegal Eagles tour of 30 Venues supplied by Event Sound and Light Ltd using One VHD stack per side. Tim Peeling the bands FOH engineer "It is an incredibly Hi-fi sounding system with excellent vocal intelligibility. VHD fitted the bill perfectly, It's compact and sounded amazing."

STEP ONE

LOUDSPEAKER COMPONENTS

Every loudspeaker used in a KV2 Audio system is specifically developed for its application. The transducer application is carefully analyzed and performance obstacles are identified leading to development of prototypes and concepts that are thoroughly tested and optimized. These components become the ultimate solution for their given application, not just an off the shelf driver made to function adequately well as is so often seen in many of today's designs.

New and forthright technologies like NVPD coating or Transcoil technology provide the building blocks for systems that are developed to challenge the very existence of other products exhibiting higher distortion and lower acoustic output.

Focussing on the technologies of heat dissipation and correct mounting and loading of components, we deal with the key part that Power Compression plays in a systems overall performance, an area often overlooked by other manufacturers. At this point their bold claims of extremely high outputs become tarnished as measurements 30 minutes into a show often reveal reductions of up to 6 dB in overall output level.

The ability of a KV2 system to sound the same, and achieve very similar levels of output after several hours is testament to a better understanding and the correct application of this technology.



STEP TWO

HORN DESIGN

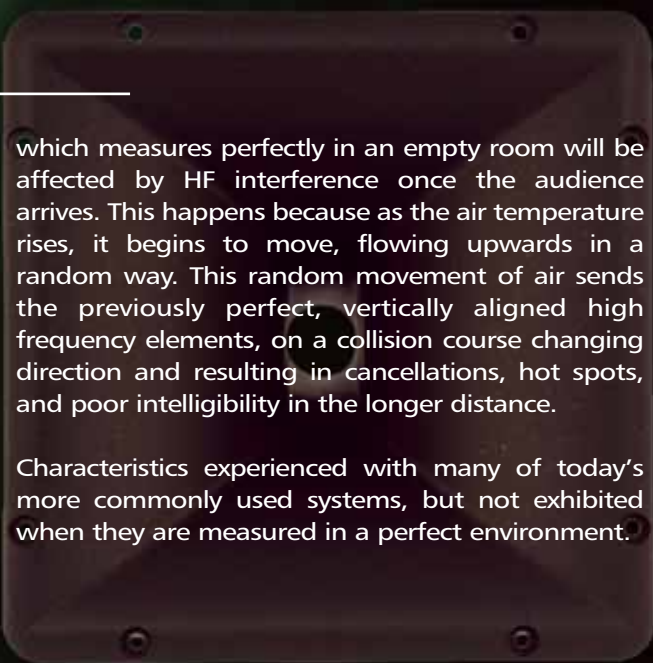
KV2 Audio does not design systems that are considered to be high Q. Unlike many high output systems that feature minimal horizontal and vertical dispersion, and require that you assemble multiple cabinets in order to achieve the desired coverage and output, VHD works differently.

In striving for the ultimate goal of Point Source Technology VHD reduces the amount of elements needed to cover a particular area for large scale sound reinforcement, thus removing the interference problems created by multiple sources in Line Array systems.

Even in Line Array, Systems which are a huge step forward over dual axis arrayable systems, a system

which measures perfectly in an empty room will be affected by HF interference once the audience arrives. This happens because as the air temperature rises, it begins to move, flowing upwards in a random way. This random movement of air sends the previously perfect, vertically aligned high frequency elements, on a collision course changing direction and resulting in cancellations, hot spots, and poor intelligibility in the longer distance.

Characteristics experienced with many of today's more commonly used systems, but not exhibited when they are measured in a perfect environment.



STEP THREE AMPLIFICATION

George Krampera has been designing amplifiers for over 30 years. His understanding of the acoustic problems and challenges of live sound speaker systems has led to the development of loudspeaker amplification systems with minimal compromises designed from the ground up for specific applications. This approach allows us to employ and refine the perfect types of power required for accurately reproducing highs, mids, mid bass and bass. VHD features fast switching high current amplifiers on the low and mid frequency elements with excellent control, especially under phase shift conditions. To compliment this a very smooth Class AB design with transformer outputs transparently delivers the High frequencies.

There are many highly skilled and respected amplifier manufacturers around, each producing designs capable of many things. Unfortunately, servicing a mature and highly populated loudspeaker market, few can have the foresight to accurately predict in which application their latest 1000 watt offering will be used, and tailor it specifically to that application.

For those who have tried running a KV2 system on conventional amplification, there is a stark realisation



of why we bring the disciplines of component design, acoustical design and amplifier technology under one roof. Together they provide the key to unlock an incredible level of performance experienced by KV2 users all around the world today.

STEP FOUR A DIGITAL DELAY THAT WORKS

The last step was the development of a driver alignment digital based audio delay system that would provide unprecedented resolution and accuracy. The fact that nearly every other Pro-audio Manufacturer accepted the barriers and quality limitations of low sampling rate PCM systems should have taken us down this path of compromise and acceptance.

Instead we looked to the field of Hi-fi where people were trying to improve things, so why not in Pro Audio.

Sony and Philips realized that even compact disc had severe limitations because of its PCM based system; with a 16 Bit 44 kHz sampling frequency only four samples were available at 10kHz. That lack of sampling meant that the machines had to basically fill in the gaps and make up the rest of the information in trying to create the original curve. This resulted in the harshness and lack of definition we hear in some digital recordings

Together they went on to develop DSD™ which is capable of capturing a

full range of naturally occurring sounds and decays with unparalleled audio resolution. The result was an enormous step forward in terms of audio quality and manifested itself as Super Audio CD on the open market.

VHD features Direct Stream Digital (DSD™) technology as part of the speaker control system's delay circuit and increases sampling from the industry standard 96 kHz to an incredible 6.0 MHz with 60 times greater resolution

This level of detail and resolution brings digital audio closer than ever to the true analogue curve.

VHD integrates all four technology steps in a powerful package. We worked towards creating the best technology in each distinct discipline. The real advantage of these innovations comes from how they are brought together within the context of an audio system. Thus, the creation of the VHD audio system represents the first embodiment of these new technologies where the result is very high definition audio.

These three photos below help illustrate the resolution in terms of detail as pixilation delivered by Industry standard PCM units sampling at 96kHz (Fig 1), 19.2 samples



192kHz (Fig2), 38.4 samples



VHD's electronics sampling at 6MHz (Fig 3), 1200 samples



VHD SYSTEM COMPONENTS

VHD 2.0

VHD MID HIGH ENCLOSURE

The VHD 2.0 is a three-way design featuring a three-inch compression driver with NVPD treated dome assembly, two horn loaded eight-inch speakers with three-inch magnetic structures and AIC technology and two horn loaded twelve-inch mid-bass speakers. All speakers employ neodymium technology to increase force, improve control and lower weight. Nominal dispersion for the VHD 2.0 is 80 degrees horizontal and 40 degrees vertical. A Left and Right version of the speaker is offered in order to create larger format vertical arrays of the mid high system. When two VHD 2.0's are arrayed vertically, horizontal dispersion is maintained while vertical dispersion is lowered to less than 10 degrees. System response is 25 Hz to 22 kHz depending on the subwoofers selected.



VHD 4.18

VHD SUBWOOFER ENCLOSURE

The VHD 4.18 is a quad eighteen-inch subwoofer system comprised of four individual loudspeaker cabinets. The objective is to make the system easy to transport and setup. When assembled, the VHD 4.18 system becomes a high efficiency neodymium subwoofer system with immense output. The system was designed with very high sensitivity in mind; it provides 110 dB at one watt, one metre and 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 assembled. The quad eighteen-subwoofer system delivers extreme output, controlled low frequencies and resolution.

Womex World Music Expo at the Sage, Gateshead featuring Robert Plant. The engineers say "If I were going to recommend any PA for that room it would be the VHD system"

VHD 2.15

VHD SUBWOOFER ENCLOSURE

The VHD 2.15 double fifteen-inch 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 acoustic chambers delivering extreme output and control. The cabinet is built to the same robust standards as the VHD 4.18 and comes with integrated Fly track to fly in multiples with the VHD 2.0 Mid Highs.



VHD 1.21

VHD SUBWOOFER ENCLOSURE

The VHD 1.21, is a 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 26Hz with an efficiency for two boxes of 102dB it shares the same footprint of the other VHD subwoofers in a compact lightweight easily transported package.

The VHD 2.15, VHD 4.18 and VHD 1.21 are very different active driven subwoofer systems designed to be powered by the VHD 3200 amplifier. All systems are based on identical footprints with the VHD 2.15 coming as standard with fly track fitted and symmetrical pick points on both units. Acoustically, they provide two distinct tools that can be used for designing a variety of system configurations.

VHD 2000

SYSTEM AMPLIFICATION & CONTROL



The VHD 2000 is the amplifier, control unit for the VHD 2.0. It is a three-way, rack-mounted unit containing high frequency, mid frequency and mid-bass amplifiers. It also houses all processing and control electronics for the subwoofer system. The amplifiers feature Class AB mosfet amplifiers for highs and mids with transformer-balanced outputs. The mid bass amplifier is a new version of KV2 Audio's high efficiency, analogue switch-mode amplifier delivering 1600 Watts. The VHD 2000 is the world's first system with proprietary digital signal delay technology using direct stream digital components providing a 6 MHz sampling rate. The unit provides complete audio system control including equalization, overdrive protection, thermal protection and user adjustable set up parameters. Once the set-up process is completed, the VHD 2000 manages all system functions and assures optimal performance.

The VHD 2000 is "Line Driver Ready" and has its own input impedance selector on the front panel to accurately match up the input impedance to the output of any mixer used. In most cases it would be advisable to use a VHD LD4 line driver in addition at the mixer end to ensure that the line to the amplifier is driven correctly and the signal integrity maintained.

Additional features include an electronic Tilt function which will electronically tilt the VHD 2.0 Mid high cabinet down by 10 degrees. This is particularly useful where the physical placement of the boxes is restricted relative to the intended area of coverage.

VHD 3200

SUB WOOFER AMPLIFIER

Power for the subwoofers is provided by the VHD 3200 rack mounted subwoofer amplifier. The unit contains two separate 1600 watt amplifiers with individual power supplies, signal paths and I/O within a single four rack space chassis. The unit acts as a slave for the VHD 2000, which provides audio and control signal.



Product Shoot out for an audio upgrade at the Belfast Empire Music Hall, arranged by Phil Soltys PSD Electronics Newquay "We auditioned the very best cutting edge systems available today. The VHD system won hands down. It was Incredibly detailed and dynamic, whilst very controlled and smooth. Coverage was amazing enabling us to cover the whole area including balconies with just one VHD 2.0 box per side"

SYSTEM CONFIGURATIONS

System One configuration comprises one VHD 2.0 and four VHD 4.18 subwoofers per side and is the highest output single VHD 2.0 system configuration. The VHD 2.0 can be ground stacked or flown using our dedicated fly bar and industry standard fly clips. This system provides wide coverage and good output sufficient to cover an area up to sixty metres deep with a high energy bass content.

System Two configuration comprises one VHD 2.0 and two VHD 2.15 subwoofers per side. The VHD 2.0 can be ground stacked or flown using our dedicated fly bar along with the VHD 2.15 subs using industry standard fly clips. As a minimum subwoofer accompaniment to a single VHD 2.0 cabinet the two VHD 2.15 subwoofers provide a level of low frequency support suitable for high quality vocal reproduction and full range music program playback. The system is suited to Jazz, Folk, Blues, and Acoustic music, whilst for Heavy Rock and Dance music applications the 4.18 based system one or the addition of 21" subs in System Three would be preferable.

System Three configuration utilises the addition of two VHD 1.21 Very low frequency subwoofers to run alongside a single VHD 2.15 Subwoofer and VHD 2.0 mid high cabinet. In this mode the system acts as a true 5 way system with the VHD 1.21 cabinets working from 25Hz up to 60Hz where the VHD 2.15 supports the upper Bass frequencies up to 100Hz. Sharing the same footprint as the other VHD cabinets the system will neatly ground stack in a single 3.0 metre column or split to fly the VHD 2.0 and VHD 2.15 in the air.

System Four features a complement of two VHD 4.18's and one VHD 2.15 Subwoofer per side to run alongside a single VHD 2.0 mid high cabinet. Whilst the output in the bass frequencies is slightly lower than that available with four 4.18 subwoofers per side this system allows a single stack to be formed, just 2.8 metres tall with a combination of low frequency weight and very good definition. It can also be split to fly the VHD 2.0 cabinet with or without the VHD 2.15 in the air.

SPEECH ONLY

As a useful feature for full range high quality speech reproduction a full range switch has been fitted on to the VHD 2000 amplifier. When activated the VHD 2000 mutes the subwoofer outputs, but operates the VHD 2.0 cabinet on its own, as a full range box working down to 60Hz.

This is particularly useful in multi purpose venues where conference work and speech intelligibility is paramount but occasionally the subs are rolled out onto the stage for a Rock 'n' Roll event. This gives the benefit of a one box, incredibly compact conference solution, but with the versatility at the touch of a button to become a very high definition mid high component in a modular high output large scale FOH PA system.

MULTIPLE SYSTEMS

When using two VHD 2.0's per side, any subwoofer configuration can be created using either multiple VHD 4.18 systems or a combination of VHD 4.18, VHD 2.15's and VHD 1.21's. In this mode the vertical dispersion is lowered to less than 10 degrees and there may be a requirement for either front or down fill using other KV2 Audio products.

Multiple systems can be built to deliver very even coverage and output throwing up to one hundred metres away.

Additional subwoofers can be added by utilising more VHD 3200 amplifiers and bass modules as required.



VHD CARTS AND COVERS

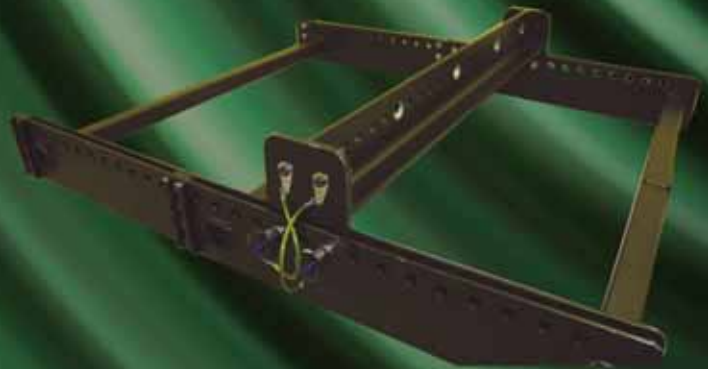
The VHD 2.0 and Sub Carts are designed to attach and lock in place directly in front of the grill offering frontal protection for the box. Featuring aluminium construction and specially designed hardwood bumpers wrapped around, when fitted with the strong and waterproof covers you have a truly 'Road Ready System'.

Wheel placement allows secure cabinet stacking for easy move in and Pack up.



VHD FLY BAR

The VHD Flybar-01 is designed to directly attach to all VHD components using the VHD Flyclip 01 (four per cabinet) The Fly bar has been engineered to fly up to three VHD 2.0's and two VHD 2.15 Subs and tested to meet a 10 to 1 safety working load limit. It features an adjustable pick point crossbar using quick release pins.



VHD SD8 Eight Channel Stage Pre-Amp



VHD LINE DRIVERS

The VHD SD8 is an eight-channel preamp designed with individual line drivers that maintain audio signal integrity over long cable lengths. As cable lengths increase, the length of the cable creates a high capacitance load that microphones have difficulty in driving. The SD8 features eight independent mic inputs with gain control adjustment, -20 dB 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 provides signal level information and a rotary knob provides 0db to +30 dB of gain control.

VHD LD4 Four Channel Line Driver



The VHD LD4 is a four-channel line driver designed to maintain audio signal integrity over long cable lengths. As cable lengths between mixers and amplifiers increase, the length of the cable creates a high capacitance load that many mixers have difficulty in driving. The LD4 eliminates standing waves and signal impurities resulting in the delivery of a high quality audio signal no matter what the cable length.

The VHD LD4 was built as a part of KV2 Audio's VHD product philosophy focused on delivering very high definition audio. 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.

Rick Lawson FT AV Ltd "VHD is an Innovation, my clients can't believe the SPL and quality from boxes this size. We can now supply F.O.H. for 5000-10,000 people from the back of a Sprinter Van. It's truly an amazing product"

TECHNICAL SPECIFICATIONS

VHD 2.0	
VERY HIGH DEFINITION MID HIGH ENCLOSURE	
Max SPL long-term	137dB (142dB 2 cabinets)
Max SPL Peak	140dB (145dB 2 cabinets)
HF COMPRESSION DRIVER	
Throat Exit Diameter	1.4" (35.5mm)
Diaphragm Material	NVPD Treated Titanium
Magnet Type	Neodymium
HF HORN DESIGN	
Horizontal Coverage	80° 2 kHz to 16 kHz avg.
Vertical Coverage	40° 2 kHz to 16 kHz avg.
Type	Constant Directivity
Overall Dimensions	10.60" x 10.60" (270mm x 270mm)
Throat size	1.4" (35.5 mm)
Sensitivity	112 dB 1 Watt / 1 meter
MIDRANGE SPEAKERS	
Number of Drivers	2
Sensitivity	110 dB 1 Watt / 1 meter
Size	8.00" (203.2mm)
Voice Coil Diameter	3.00" (76mm)
Magnetic Circuit	Active Impedance Control
Magnet Type	Neodymium
Cooling	Integrated aluminum heatsink
MIDRANGE HORN DESIGN	
Horizontal Coverage	80° 500Hz to 2.5kHz avg.
Vertical Coverage	40° 500Hz to 2.5kHz avg.
Type	Constant Directivity
LF SPEAKERS	
Number of Drivers	2
Sensitivity	108 dB
Acoustic Design	Horn-loaded
Woofer Size	12.00" (300mm)
Voice Coil Diameter	3.00" (76mm) Inside/Outside epoxy baked
Magnet Type	Neodymium
CONSTRUCTION FEATURES	
Material	15mm Exterior Grade Baltic Birch
Finish	Ultra wear-resistant black polymer coating
Hardware	Six (6) Side Handles
Flyware	Four (4) Full length flybars with five standard flyclip points. Two each placed vertically on each side
Pullback Hardware	Two (2) each 5 point flybar on the rear of the cabinet
Feet	Eight (8) 2.36" (60mm) diameter
PHYSICAL	
Height	36.72" (932.8mm)
Width	27.55" (700mm)
Depth	19.48" (495mm)
Weight	154 lbs. (70kg)

VHD 1.21	
VERY HIGH DEFINITION SUBWOOFER ENCLOSURE	
ACOUSTIC PERFORMANCE	
-3 dB Response	28 Hz
-10 dB Response	23 Hz
(Two VHD 1.21)	
Sensitivity	102 dB 1 Watt / 1 meter
Max SPL long-term	135dB
Max SPL Peak	137dB
Crossover Point	60Hz
SPEAKER INPUT	
Panel Connector Type	Amphenol AP-4 Male
Loop-Through Output	Amphenol AP-4 Female
LOW FREQUENCY SECTION	
Number of Drivers	1
Acoustic Design	Large-chamber bass reflex Low Q bandpass
Woofer Size	21.00" (533mm)
Voice Coil Diameter	4.00" (100mm) Inside/Outside epoxy baked
Material	15mm Exterior Grade Baltic Birch
Finish	Ultra wear-resistant black polymer coating
Hardware	Six (6) custom handles
Feet	Eight (8) 2.36" (60mm) diameter
PHYSICAL	
Height	23.62" (710mm)
Width	27.55" (700mm)
Depth	29.13" (740mm)
Weight	132 lbs. (60kg)

VHD 2.15	
VERY HIGH DEFINITION SUBWOOFER ENCLOSURE	
ACOUSTIC PERFORMANCE	
-3dB response	38Hz - 230Hz
-10dB response	32Hz - 250Hz
(One VHD 2.15)	
Sensitivity	102 dB 1 Watt / 1 Meter
Max SPL long-term	134dB
Max SPL Peak	137dB
(Two VHD 2.15)	
Sensitivity	107 dB 1 Watt / 1 Meter
Max SPL long-term	139dB
Max SPL Peak	142dB
Crossover Point	100Hz - 130Hz System Dependent
SPEAKER INPUT	
Panel Connector Type	Amphenol AP-4 Male
Cable Mounted Input Connector	Amphenol AP-4 Female
Loop-Through Output	Amphenol AP-4 Female
LOW FREQUENCY SECTION	
Number of Drivers	2
Sensitivity	102 dB 1 Watt / 1 Meter
Acoustic Design	Acoustic loading via twin asymmetrical chambers
Woofer Size	15.00" (381mm)
Voice Coil Diameter	4.00" (100mm) Inside/Outside epoxy baked
Diaphragm Material	Epoxy-reinforced cellulose
Magnet Type	Advanced ventilated neodymium
CONSTRUCTION FEATURES	
Basic Geometric Design	Rectangular
Material	15mm Exterior Grade Baltic Birch
Finish	Ultra wear-resistant black polymer coating
Hardware	Six (6) custom side handles
Flyware	Four (4) Full length flybars with five standard flyclip points. Two each placed vertically on each side
Pullback Hardware	One (1) each 5 point flybar on the rear of the cabinet
Feet	Eight (8) 2.36" (60mm) diameter
Grill	Acoustically transparent perforated metal
Physical	
Height	23.62" (603mm)
Width	27.55" (700mm)
Depth	29.13" (740mm)
Weight	143 lbs. (65kg)

VHD 4.18	
VERY HIGH DEFINITION SUBWOOFER ENCLOSURE	
ACOUSTIC PERFORMANCE (FOUR VHD 4.18 CABINETS)	
-3 dB Response	34 Hz
-10 dB Response	29 Hz
Sensitivity	110 dB 1 Watt / 1 meter
Max SPL long-term	146dB
Max SPL Peak	149dB
Crossover Point	100Hz
SPEAKER INPUT	
Panel Connector Type	Amphenol AP-4 Male
Loop-Through Output	Amphenol AP-4 Female
LOW FREQUENCY SECTION	
Number of Drivers	1
Acoustic Design	Large-chamber bass horn reflex
Woofer Size	18.00" (457mm)
Voice Coil Diameter	4.00" (100mm) Inside/Outside epoxy baked
Magnet Type	Advanced ventilated neodymium
CONSTRUCTION FEATURES	
Basic Geometric Design	Rectangular
Material	15mm Exterior Grade Baltic Birch
Finish	Ultra wear-resistant black polymer coating
Hardware	Six (6) custom handles
Feet	Eight (8) 2.36" (60mm) diameter
PHYSICAL	
Height	23.62" (603mm)
Width	27.55" (700mm)
Depth	29.13" (740mm)
Weight	114 lbs. (52kg)

TECHNICAL SPECIFICATIONS (con't)

VHD 2000	
AMPLIFICATION & CONTROL	
HIGH FREQUENCY AMPLIFIER	
Type	Class AB - Push Pull - Low IM Design
Rated Continuous Power	200 Watts
Distortion	<.005% THD
Operating Bandwidth	2.5kHz - 20kHz
MID FREQUENCY AMPLIFIER	
Type	Class H –High Efficiency
Rated Continuous Power	1000 Watts
Distortion	<.005% THD
Operating Bandwidth	500Hz - 2.5kHz
MID BASS AMPLIFIER	
Type	High-efficiency, current-enhancing Switch Mode technology with Active Filter
Rated Continuous Power	1200 Watts
Distortion	<.005% THD
Operating Bandwidth	100Hz - 500Hz
PHYSICAL	
Height	7.00" (177.8mm)
Width	19.00" (483mm)
Depth	19.5" (495mm)
Weight	70.4 lbs. (32kg)
LINE INPUT POWER	
US	115VAC, 60Hz
US recommended amperage	20 Amps
AC Connector	Neutrik PowerCon
Europe	230VAC, 50Hz
Eur. recommended amperage	10 Amps
AC Connector	Neutrik PowerCon

VHD 3200	
SUBWOOFER AMPLIFIER	
Input Sensitivity	1 Volt Rms at full power
Input Impedance	20kOhm (Balanced)
Main Signal Input Connector	Female XLR
Through Signal Output	Male XLR
SPEAKER OUTPUT (TWO OPTIONS)	
Subwoofer Speaker Connector	Panel-mounted Amphenol AP-4 Female Green / Red - Power ON Indicators /Thermal Condition Shutdown (Auto Reset) Green - Signal Present Yellow - Limiter Indicators
ON / OFF Switch	2-position rocker switch with built-in thermal breaker for AC Overload and Short Circuit Protection
BASS AMPLIFIER	
Type	High-efficiency, current-enhancing Switch Mode technology with Active Filter
Rated Continuous Power	1600 Watts X 2
Distortion	<.005% THD
Operating Bandwidth	20Hz - 150Hz
PHYSICAL	
Height	7.00" (177.8mm)
Width	19.00" (483mm)
Depth	19.5" (495mm)
Weight	88 lbs. (35kg)
LINE INPUT POWER	
US	115VAC, 60Hz
US recommended amperage	20 Amps (Each Channel)
AC Connector	Neutrik PowerCon
Europe	230VAC, 50Hz
230VAC, 50Hz	10 Amps (Each Channel)
AC Connector	Neutrik PowerCon

SD8	
8 CHANNEL STAGE PRE-AMP	
Frequency Response (-1dB)	6 Hz - 500 kHz
Gain 50 Ohm Load	0 - +30 dB
Input Pad	-20 dB
Max. Input Volatge (Input Pad ON)	100 V RMS
Dynamic Range	Greater then 120 dB @ 0 dB Gain
Distortion	0.0005%
Input Impedance	2k Ohm - Balanced
Output impedance	50 Ohm - Balanced
Max. output voltage 50 Ohm Load	7 Volts RMS
Max. output voltage no Load	14 Volts RMS
Capacitive Load @20kHz (- 1dB)	150 nF
Max. Output current	450 mA
Phantom Power	+48V regulated
AC POWER	
Connector	IEC 320
Operating Voltage	Selectable 100-120V 60 Hz 200-240V 50 Hz
DIMENSIONS	
Height	3.50" (89.0mm)
Width	19.00" (482.6mm)
Depth	7.00" (177.8mm)
Weight	12.1lbs. (5.5 kg)

LD4	
4 CHANNEL LINE DRIVER	
Frequency Response (- 1 dB)	6 Hz - 500 kHz
Gain 50 Ohm Load	0 dB
Dynamic Range	Greater then 120 dB
Distortion	0.0005%
Input Impedance	20k Ohm - Balanced
Output impedance	50 Ohm - Balanced
Max. output voltage 50 Ohm Load	7 Volts RMS
Max. output voltage no Load	14 Volts RMS
Capacitive Load (20kHz - 1dB)	150 nF
Max. Output current	450 mA
AC POWER	
Connector	IEC 320
Operating Voltage	Selectable 100-120V 60 Hz 200-240V 50 Hz
DIMENSIONS	
Height	1.75"(44.5mm)
Width	19.00" (482.6mm)
Depth	7.00" (177.8mm)
Weight	6.5lbs. (2.9 kg)

The 2006 Winter Olympics- Sestriere, Italy. "It was amazingly Loud and clear, even over 100 metres away it provided very even coverage with just one VHD stack per side"

...the future of live sound
is surprisingly clear...



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