DUAL 8-INCH HIGH OUTPUT ACOUSTIC LINEARITY SYSTEM

DATA SHEET

FEATURES

- Each al-8 Compact Line Array System “block” includes
- four al-8 Acoustic Elements and a single VUEDrive™ V6 Systems Engine
- Scalable by adding or removing other al-Class acoustic elements,
- or combining multiple al-8 blocks
- On-board SystemVUE™ networking
- Fully compatible with VUEPoint beam steering technology
- Integrated flying hardware allows quick assembly of arrays of up to 16 elements per flybar
- Optional flying and transport accessories available
- The al-8 can be used as elements in complex CST™ Hybrid Array along with al-12’s and al-4’s

DESCRIPTION

Like all other al-Class line arrays, the al-8 Compact Line Array System utilize VUE’s most advanced technologies and innovative designs to deliver superior sonic performance and unparalleled versatility. Cutting-edge technologies such as beryllium compression drivers, Kevlar/Neo transducers, precision amplification and DSP, as well as on-board SystemVUE networking, and full compatibility with the VUEPoint beam steering technology allow the highly-scalable al-8 to deliver unprecedented performance to a broad range of mainstream sound reinforcement applications.

The al-8 Line Array System is made up of the al-8 Acoustic Element and rack-mount V6 Systems Engine. The V6 combines a highly-sophisticated DSP architecture with enough amplifier power to tri-amp up to four al-8 acoustic elements. In addition, on-board SystemVUE networking capabilities allow easy assembly of sophisticated networks with remote management and control available via the intuitive SystemVUE software.

The system is sold in standard blocks, with four al-8 Acoustic Elements and a single V6 Systems Engine comprising a single block. Multiple al-8 blocks can be combined to address larger applications.

For applications where extended low frequency is required, the al-8 is fully compatibility with a variety of VUE subwoofers. Flexible options allow flying, or ground stacking.

The al-8 Line Array System benefits from a highly-sophisticated DSP architecture that allows each individual component--from traducers, amplifiers and cabinets, all the way out the SystemVUE software itself--to work perfect harmony for precise control and easy operation. In fact, the technology is so smart that al-8 designers were able to pre-load the V6 Systems Engine with a library presets that dramatically improve ‘out -of-the-box’ performance while streamlining setup. Operators simply assemble the array, select the desired preset from the SystemVUE software, then align the physical placement. Minimal EQ or tweaking is required and the operator is free concentrate on creating the perfect mix.

DESIGN NOTES

The al-8 Acoustic Element features a full complement transducers designed and engineered specifically by VUE for use in the al-8. A pair of precision-engineered 8-inch low frequency transducers flank four 4-inch, Kevlar-coned Neodymium woofers for the mid-range. The mid-range units are outfitted with VUE's unique lateral acoustic shade modules that acoustically "moves" the drivers closer together to optimize directivity of the woofers at their upper operating range for a smooth transition over the entire coverage area.

For the high frequency, the al-8 utilizes a pair of 1-inch exit, neodymium compression drivers with Truextent® beryllium diaphragms. Beryllium technology allows the compression driver to deliver dramatic improvements in HF extension and response linearity that simply cannot be matched by traditional aluminum or titanium designs.

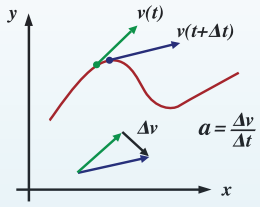
The beryllium compression drivers are mounted to a tightly coupled, precision waveguide that reduces acoustic lobeing and provides ideal line array consistency.

All transducers are housed in a rugged birch plywood enclosure protected by a 12-step Dura-Coat LX finish. Integrated flying hardware allows quick assembly of arrays of up to 16 elements per flybar. Rear panel I/O includes NL8 Input and Loop connections for easy daisy-chaining of line array elements. Flexible rigging options allow flying and ground stacking.

THE TRUEXTENT® BERYLLIUM ADVANTAGE

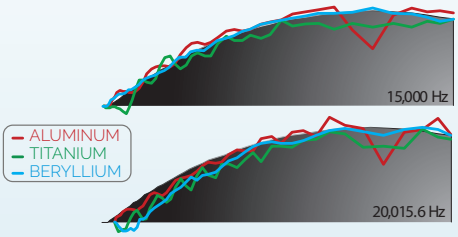
LOWER MASS EQUALS GREATER ACCELERATION

Beryllium has the lowest density-to-mass ratio of any metal used for compression driver diaphragms.

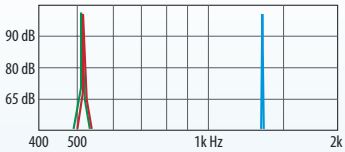


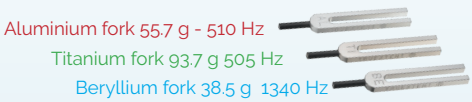
Acceleration is the rate of change of velocity. Density measures mass-per-unit volume. A lower overall mass allows for greater acceleration, which increases both efficiency and frequency extension.

Beryllium's near-perfect pistonic motion results from its extremely high stiffness-to-mass ratio, dramatically reducing mechanical deformation (breakup) and shifting resonant frequencies outside the audible range.



Klippel SCN laser scanner, geometric and vibration scans of compression driver domes





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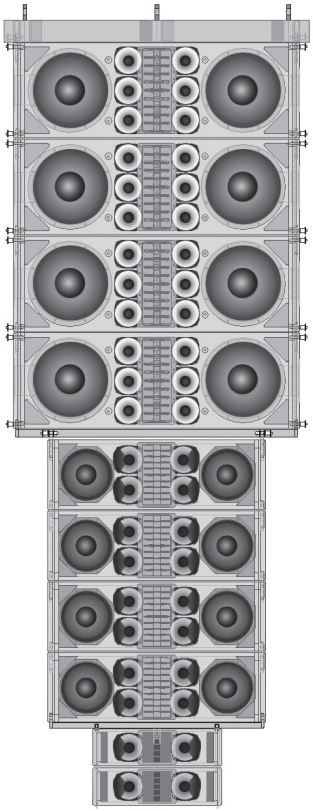
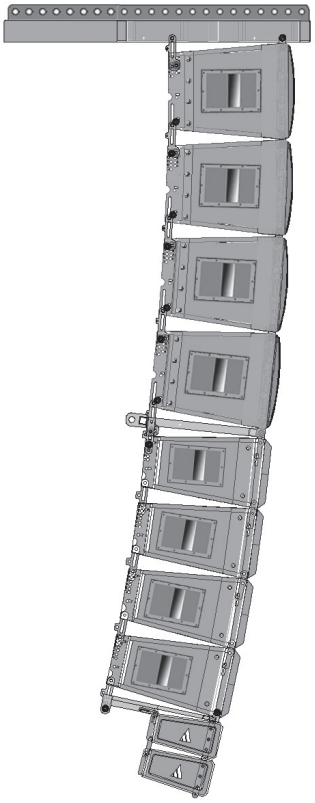
FOR MORE INFORMATION ON HOW BERYLLIUM MAKES VUE PRODUCTS BETTER VISIT: VUEAUDIO.COM/ABOUT/BERYLLIUM





CONTINUOUS SOURCE TOPOLOGY™

The VUE al-Class line arrays are the only system that can combine various al-Class Line Array Systems (al-4, al-8, and al-12) into a single coherent array without compromising the continuous line in the mid and high frequency topography. This design feature enables a level of unparalleled system versatility. One can create virtually seamless arrays fully optimized for every parameter including coverage, sound pressure level, size and weight. This also expands the capitalization of a rental inventory for all portable applications.

Both MF drivers and HF compression drivers are optimized for their respective element size to performance expectations, including carefully designed cross-over points through system dsp. Each line array system element has unique HF/MF/ LF driver architecture, particular materials and component designs which have been modified and enhanced based on the demands of their expected .performance requirements. Yet the HF/MF driver topology across the al-Class elements is continuous and identical.

POWERING THE SYSTEM

V6 SYSTEM ENGINE

- LF 2500 W x 2 sine wave - MF 800 W x 2 sine wave - HF 800 W x 2 sine wave
- 64-bit digital processing including EQ, time alignment, crossover management, and speaker protection
- Ultra-premium converters provide 118 dB of dynamic range
- Input Delay up to 2 seconds per channel
- LCD display for easy user interface (non LCD version available for fixed installation)
- Compatible with SystemVUE control and monitoring software for Mac, PC and iOS
- Maximum input level of +23 dBu for the most demanding applications
- Latency < 1ms (Typical 640 microseconds)
- Compact 2U rack-mount chassis

The 2U-sized V6 Systems Engine is a 2-in/6-out configuration providing six discrete channels of amplification with more than enough power to tri-amp four al-8 elements.

Inside each V6 chassis are six dedicated amplifiers supplying two channels at 2500 W each for the low frequency, four channels at 800 watts each for the mid frequency and high frequency sections. And that's pure sine wave power rather than the "peak burst" measurement.

In addition to amplification, the V6 Systems Engine also handles all system processing and management functions, including speaker protection and system-optimized alignment of EQ, time and crossover functions. Rear panel signal connections include dual XLR and AES/EBU and DANTE inputs, with a pair of NL8 connectors for loudspeaker outputs.

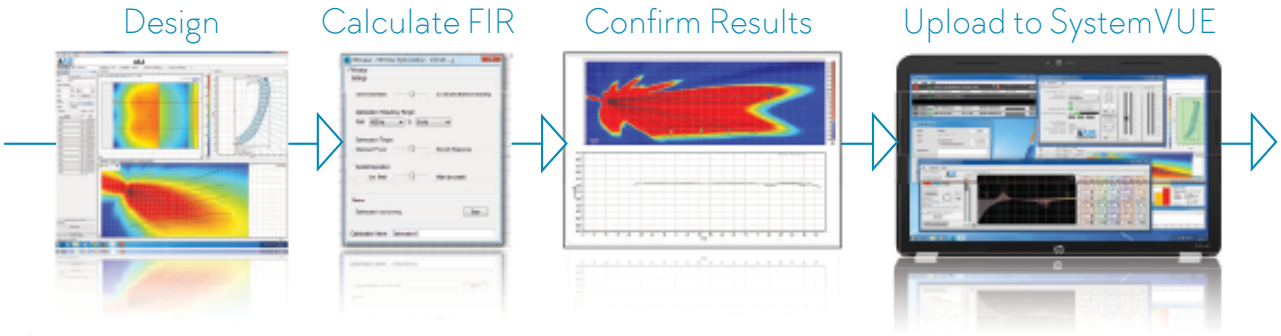
The V6 Systems Engine provides full networking capabilities via SystemVUE software as well as full compatibility with the VUEPoint beam steering technology.

VUEPOINT

VUEPoint™ Beam Steering is an innovative process for system optimization that brings the power of beam forming to virtually any mainstream line array application.

Developed in partnership with Berlin-based AFMG Technologies, the undisputed leader in room modeling and analysis software, VUEPoint is a four-part process that combines VUE's sophisticated DSP and VUEPoint software with AFMG's revolutionary FIRmaker technology.

VUEPoint can be applied to the al-8 without the need for special upgrades or add-ons. The Capabilities are already integrated into V6 System Engine's DSP architecture and SystemVUE software. By following a simple four-step VUEPoint process al-8 users can achieve dramatic improvements in coverage control and spectral consistency in virtually any environment.



SYSTEMVUE NETWORK

The al-8's companion V6 Systems Engine ships with networking and remote management capabilities as standard, allowing easy assembly of expanded networks and easy access to each element and/or device on the network through our intuitive SystemVUE software.

SYSTEMVUE SOFTWARE MONITORING AND CONTROL

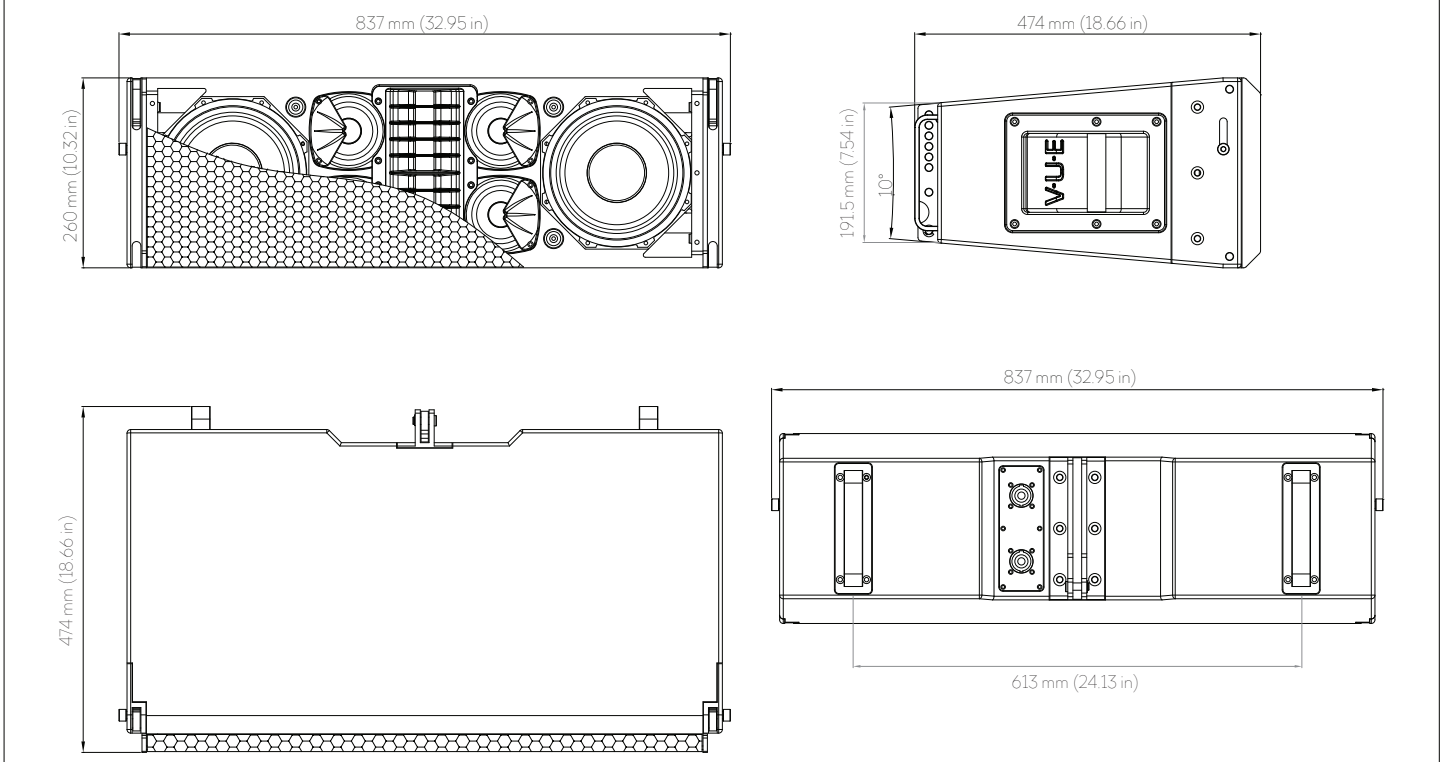
Front and rear panel Ethernet ports are fully compatible with standard IP networks. Simply plug in, and the product will automatically recognize and connect to virtually any kind of IP configuration including DHCP based networks, a fixed IP network, or even an ad hoc network (directly connecting to a computer via Ethernet cable). Whatever the configuration, it just works.

The V6 provides an Ethernet "Input" on the front panel and both "Input" and "Loop" connections on back. The loop option allows users to daisy-chain additional devices into the network without the need for individual runs from the system switch to each device.

To ensure network reliability, the Ethernet ports on the V6 can detect power interruptions and automatically switch to a pass-through position in the event of a local failure. This ensures that the larger network remains functional even if a single node fails or loses power.

SystemVUE software provides access to entire networks, as well as individual devices, for the purpose of optimizing key parameters such as speaker protection, input/output levels, volume, mute, delay and even input sources. Via the SystemVUE software, users can easily customize the V6 Systems Engine for use with a wide variety of unique al-8 configurations, or update the unit to function with future VUE al-Class arrays.

al-8 DIMENSIONAL DRAWING



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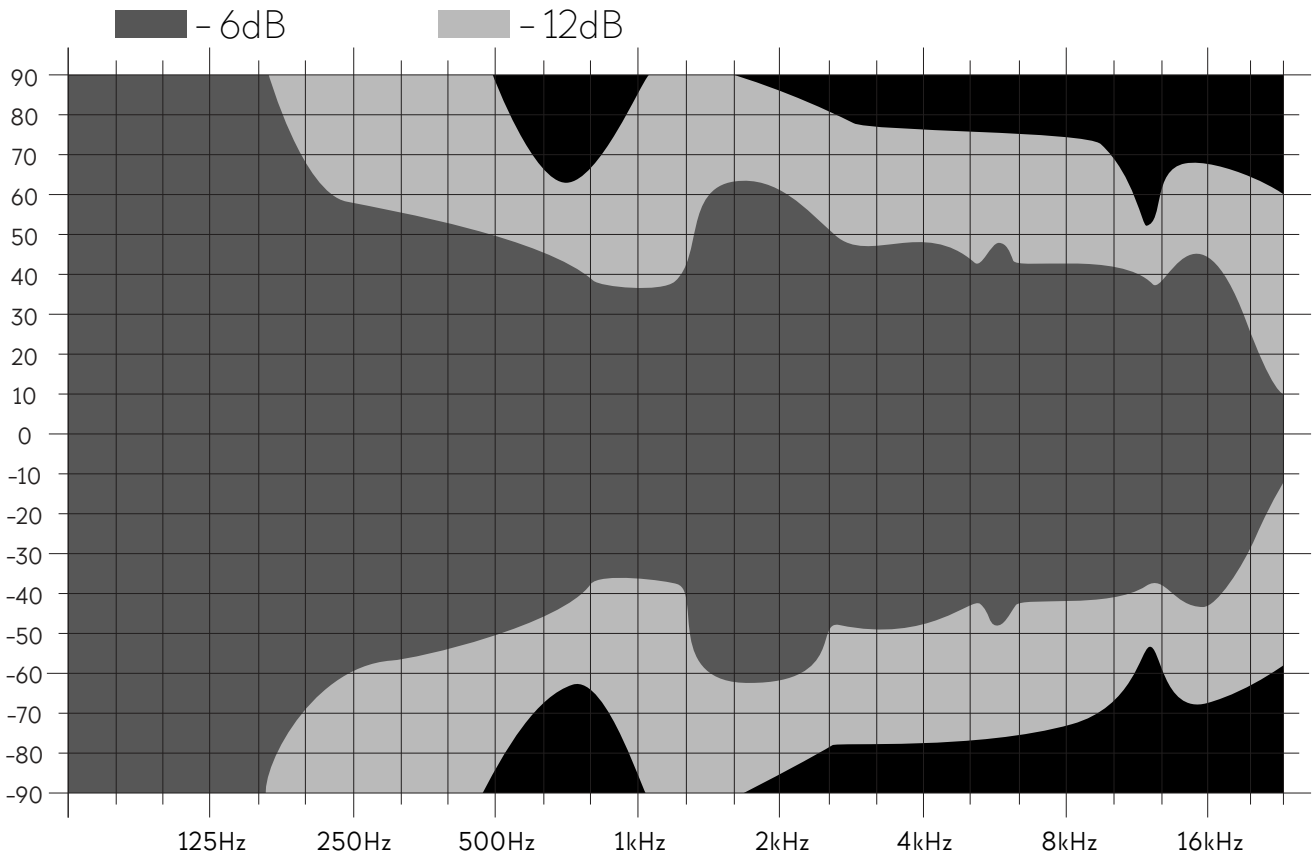
HORIZONTAL DISPERSION MAP



Horizontal Dispersion

VUE al-Class | al-8

VUE audiotechnik

al 8

SPECIFICATIONS

DUAL 8-INCH HIGH OUTPUT ACOUSTIC LINEARITY SYSTEM

	AL-8	2 X AL-8 & V6
DESCRIPTION	Compact Line Array Element	Compact Line Array System
ACOUSTIC DATA		
Frequency Response (+-2.5 dB)	75 Hz to 18 kHz	70 Hz to 18 kHz
Frequency Range (-10 dB)	50 Hz - 26 kHz	50 Hz - 26 kHz
Sensitivity (1W/1m)	100 dB SPL	103 dB SPL
Power Long Term Sine Wave Before Protection LF: Before Protection MF: Before Protection HF:	 700 watts 275 watts 56 watts	 1400 watts 550 watts 224 watts
Power Burst (6 dB Crest before clip) LF: MF: HF:	 2000 watts 800 watts 800 watts	 4000 watts 1600 watts 800 watts
Max Peak SPL ǂ Measured (band limited pink noise 6 dB crest factor) Calculated (Broadband Sensitivity + Max Power)	125 dB SPL 136 dB SPL	131 dB SPL 141 dB SPL
Max SPL Long Term (AVG SPL @1M before protection band limited pink noise)	119 dB SPL	125 dB SPL
Coverage Horizontal	90 degrees - 6 dB	90 degrees - 6 dB
Coverage Vertical	10 degrees - 6 dB	Dependent on array configuration
TRANSDUCER DATA		
LF Driver Description	Two 8-inch drivers, 3-inch voice coils, neodymium magnets	
MF Driver Description	Four 4-inch drivers, Kevlar cones, isobutylene isoprene rubber surrounds, neodymium magnets	
HF Driver Description	Two 1-inch exit 34 mm voice coil, Pure Truextent® beryllium diaphragm	
Impedance	8/8/8 Ω (L/M/H)	4/4/4 Ωs net 2x 8/8/8 Ω
PHYSICAL DATA		
Rigging:	Three-point rigging system, angles between elements: 0° to 10° in 1° steps	
Connectors	Neutrik NL8 Speakon In and Loop	
Cabinet Material	Multi-ply birch hardwood	
Cabinet Surface	Dura-Coat LX - an elastomer synthetic resin chemical coating	
Handles	Side Recessed & Rear Metal	
Dimensions (H x W x D)	10.25 x 32.09 x 17.52 in [34.45 wide with fly pins] (261 x 815 x 445 mm [875mm wide with fly pins])	
Weight (per element)	Net: 78.2 lbs (35.47 kg) / Shipped: 92.6 lbs (42 kg)	
ACCESSORIES		
al-8FB	Fly bar for al-8 acoustic elements	
al-8-ufb	Transition fly bar from al-8's to al-4's	
al-8-pin4x	Extra al-8 Fly Pins (set of four pins)	
al-8-4xtr	Transport rack for up to 4 x al-8 acoustic elements	

ǂ Measured Max SPL is recommended for system design purposes and represents the average peak output before protection and after power compression. In accordance with common industry practice, calculated data is provided for comparison purposes, and is a theoretical calculation.

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