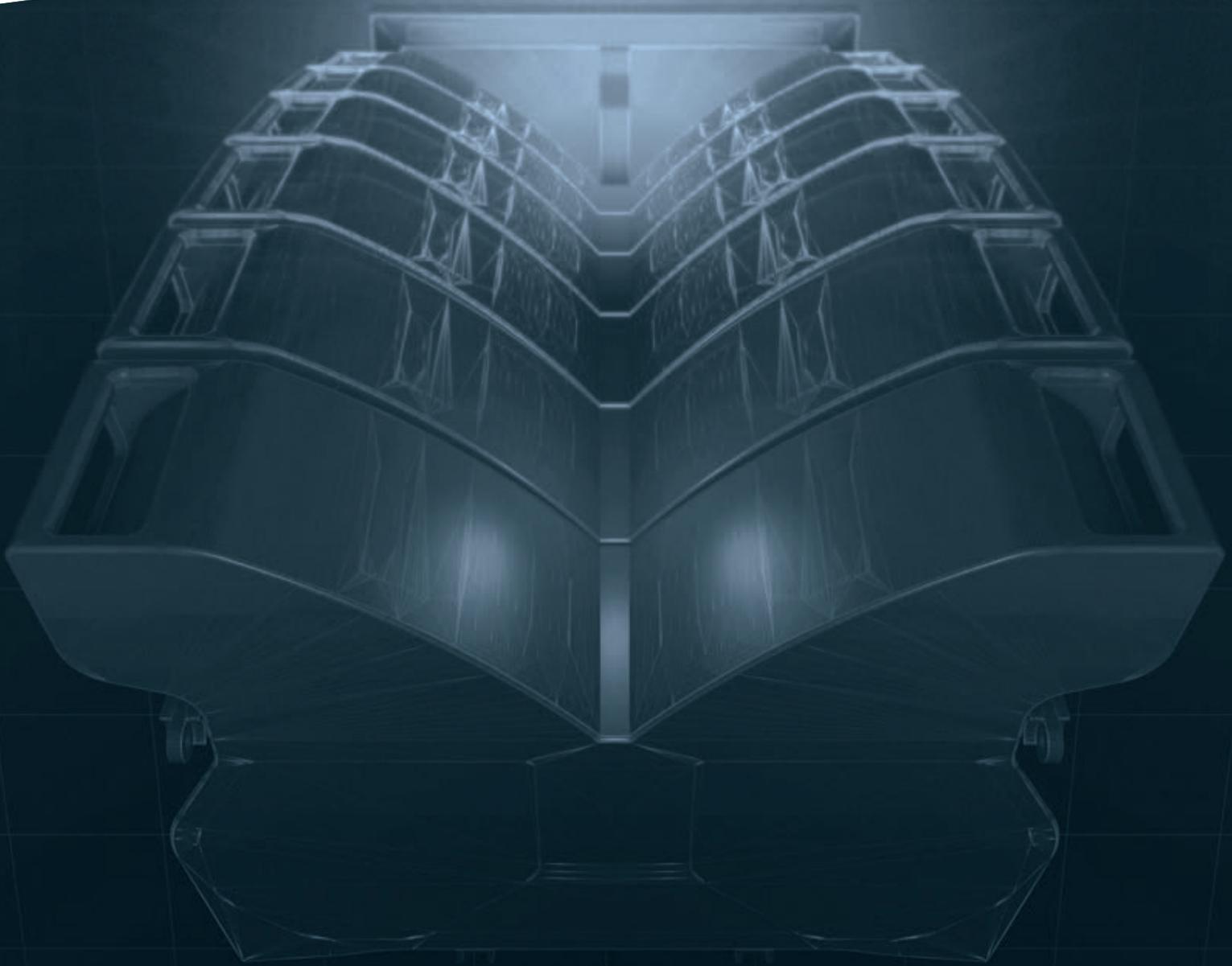


WHY JUST FLY WHEN YOU CAN SUPERFLY?



SUPERFLY



Outline



SUPERFLY

BUILDING ON A HERITAGE OF INNOVATION INTRODUCING SUPERFLY BY OUTLINE

Outline's latest compact line-array contains design DNA from one of the most influential loudspeaker designs of the last 15 years, our groundbreaking Butterfly.

This remarkable product set new standards in terms of the precision coverage and SPL that could be achieved from a small, light cabinet and inspired numerous similar designs from manufacturers all over the world, making it a trend-setter for years to come.

Outline's engineers have taken the Butterfly concept and refined it into a new generation of advanced loudspeakers that, once again, redefines performance and operational benchmarks within their class. This is the future: this is Superfly.

Outline



INTRODUCTION

Line-source loudspeaker systems are now the established standard for the majority of touring concert sound applications and many fixed installations globally.

The development of these products over recent years has been principally in one direction - loudspeaker modules that punch far above their size and weight in terms of acoustic performance.

Partially enabled by the known physical principles of acoustic coupling, partly by the emergence of high-efficiency components and partly by advanced acoustical engineering, these products can offer significant operational advantages to end-users.

Superfly has been created by our engineers to extend these advantages even further, by producing an easy-to-use loudspeaker system whose output and coverage is simply prodigious compared to its physical characteristics.



SUPERFLY

TECHNICAL OVERVIEW

Superfly is a fully active, quad-amplified design which utilises X8-series DSP-equipped amplification and control platform.

Whilst the loudspeaker is a true three-way (HF-MF-LF) design, the dual high-efficiency 10" transducers in the LF section are powered individually which significantly enhances low-frequency performance compared to Butterfly.

Superfly's ultra-wide bandwidth and clarity makes it the ideal solution without the need for additional subwoofers. However, when used with any Outline subwoofers, its full acoustic potential is realised.

The midrange and HF components (dual 8" drivers and a single 3" compression driver) are shared with our GTO series, producing some remarkable performance figures.

OPERATIONAL EFFICIENCY FOR EVERY USER

Although it includes established technologies from other Outline products, Superfly has been created using a truly integrated system approach. Designed from the outset to use our state-of-the-art X8-series DSP-equipped amplification, a Superfly rig is simplicity itself to deploy in any situation, relying on minimal crew and requiring very modest floor space to transport and store.

Part of Superfly's design is the wide 90-degree dispersion in the horizontal plane, which in many cases will reduce or eliminate the necessity for additional 'fill' cabinets.

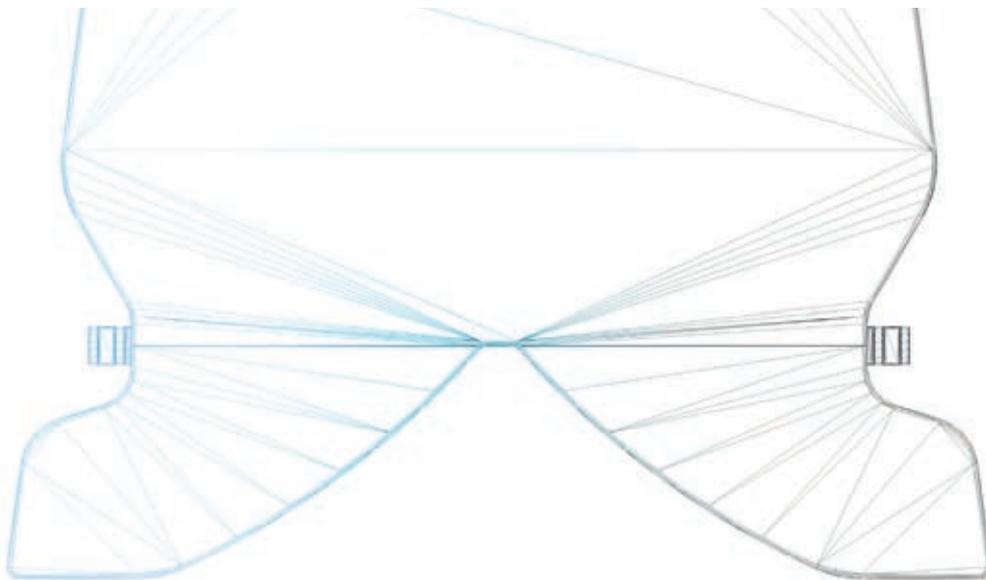
Where these are required however, Superfly will easily integrate with other Outline cabinets - for example, the 120-degree horizontal dispersion of our Mantas 28 cabinet would make it the perfect downfill / nearfield option for Superfly since it not only uses the same rigging hardware but also shares the same Seamless Baffle concept, providing perfect acoustic compatibility.

OUTLINE'S V-POWER FRONT BAFFLE - AN ESTABLISHED FAVOURITE ON THE ROAD

Two proven Outline technologies featured in our other line-source designs are also at the heart of Superfly: the patented DPRWG Dual Parabolic Waveguide and the V-Power Seamless Baffle Concept (Source: White Paper by Guido Noselli), both of which are essential components in delivering the power and control for which our systems are recognised globally. The latter, while now commonplace, was pioneered by Outline.

Despite its extraordinary acoustic potential Superfly weighs only 38 kg (83.8 lb), just a little heavier than Butterfly. This has been achieved through a unique structural design made possible by advanced manufacturing techniques in our new, state-of-the-art woodshop.

With the combination of innovative manufacturing techniques, the very latest in automated machinery and Outline know-how, we can now produce thinner, lighter panels of almost any shape which have the structural integrity of much heavier components.



SYSTEM INTEGRATION AND EFFICIENCY

In spite of a brand new enclosure design, Superfly integrates acoustically with our other line-source systems including our flagship GTO family. It also shares identical integral rigging structure and accessories with our Mantas 28 loudspeaker, making it a perfect option for those users with existing Mantas 28 inventories.

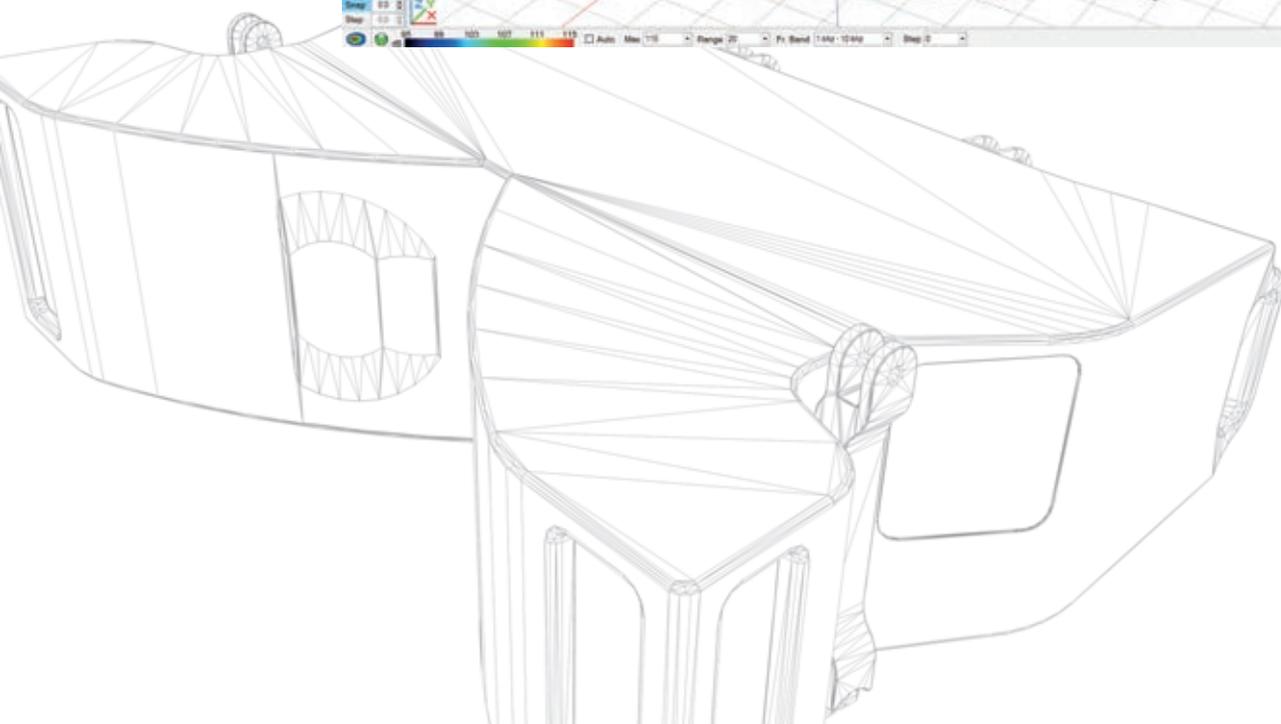
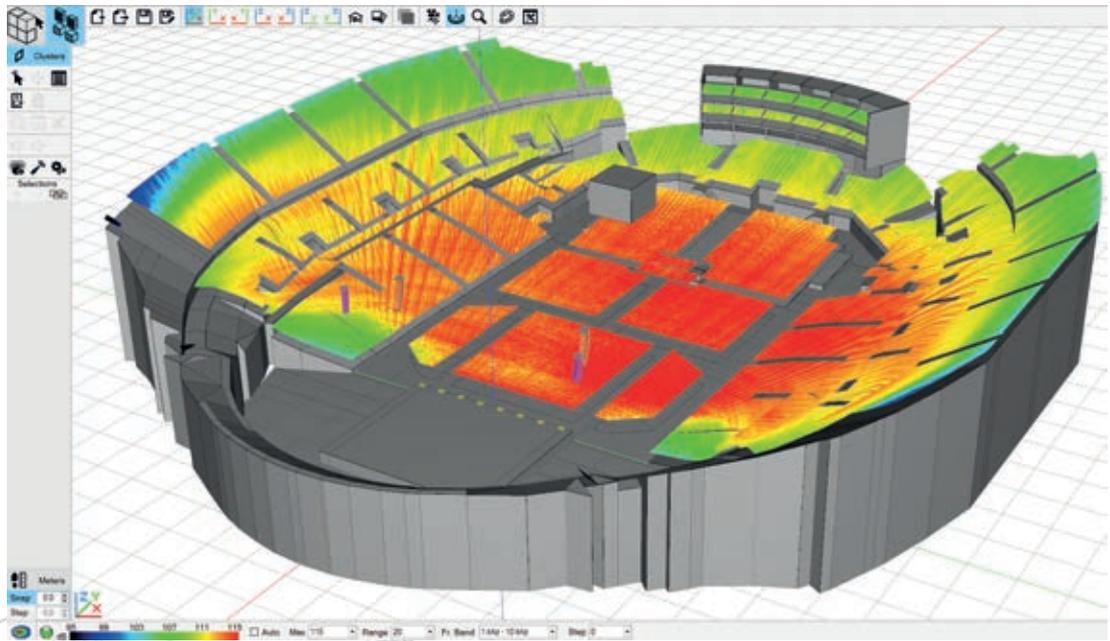
As with all our products and systems, Superfly can be freely combined with other Outline products to create bespoke designs according to application.

However, as an example of a flexible and powerful system that would handle many touring situations, a configuration of twelve Superfly and eight DBS 18-2 subwoofers (or eight Sub 218s) could be powered by just three X8 amplifiers and still leave four channels for other zones such as lip-fills, downfills, additional subwoofers or even monitoring.

OPENARRAY 3D THE MOST ADVANCED 3D SIMULATION SOFTWARE EVER CREATED BY OUTLINE'S R&D TEAM

In common with our other products, Superfly is fully compatible with our own OpenArray 3D acoustic simulation software. This is another proven Outline advantage that is in daily use worldwide as an invaluable tool for optimising the performance of fixed and mobile sound systems, regardless of the physical environment.

OpenArray features incredibly fast rendering time from input of data to final design and it can also import DXF files, thus giving users a head start toward final deployment of the intended system. This and many other features make OpenArray an indispensable tool for audio professionals everywhere. (Learn more on Outline's website - www.outline.it).



PERFORMANCE SPECIFICATIONS

Frequency Response -10 dB	50 Hz – 20 kHz
Horizontal Dispersion	90°
Vertical Dispersion	Array design dependent
Splay Angles available (Degrees)	from 0° to 7.5° in 0.5° step with additional 0.25° position
Operating configuration	Quad-amplified
Impedance Low (Nom / Min)	2 x 16 Ω / 2 x 14.4 Ω
Impedance Midrange (Nom / Min)	16 Ω / 12.6 Ω
Impedance High (Nom / Min)	16 Ω / 15.9 Ω
Watt AES Low (Continuous / Peak)	2 x 450 W / 2 x 1800 W
Watt AES Midrange (Continuous / Peak)	400 W / 1600 W
Watt AES High (Continuous / Peak)	120 W / 480 W
Maximum SPL Output, one box *	143 dB SPL
Maximum SPL Output, four boxes *	155 dB SPL

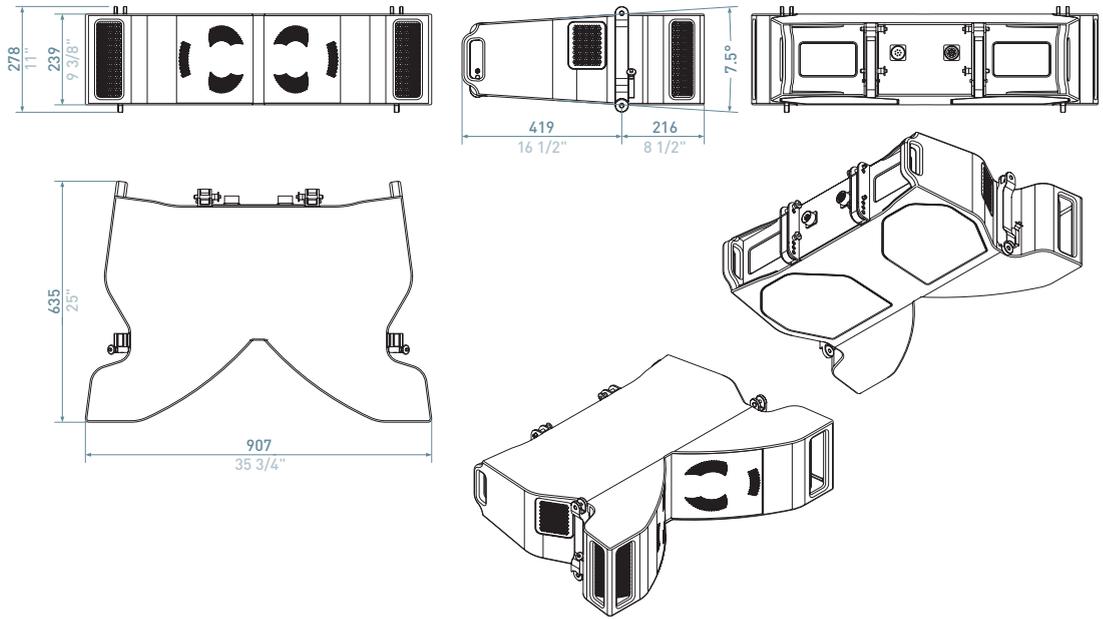
** calculated using +10 dB Crest Factor signal @ 1 m, free field*

PHYSICAL

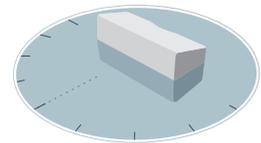
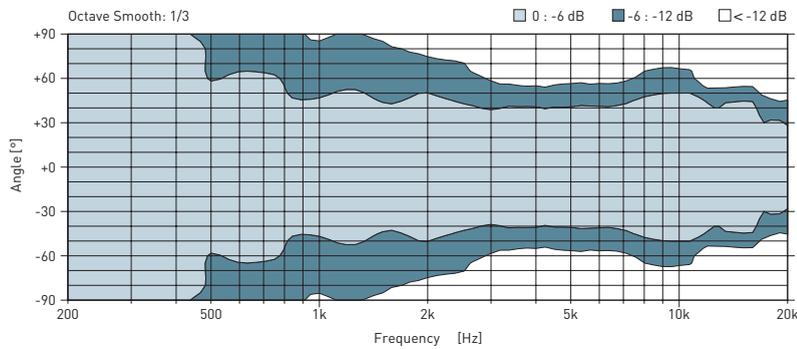
Component Low	2 x 10" NdFeB double reflex band-pass loaded woofer
Component Midrange	2 x 8" NdFeB partially horn loaded mid woofer
Component High	1 x 3" diaphragm NdFeB compression driver, DPRWG loaded
Connectors	2 x LK18 in parallel (8-pin, military grade)
Cabinet Material	Baltic birch plywood
Cabinet Finish	Black polyurea coating
Grill	Epoxy powder coated
Rigging	Integrated high-load aluminium hardware
Height	239 mm - 9 3/8"
Height (rigging included)	278 mm - 11"
Width	909 mm - 35 3/4"
Depth	636 mm - 25"
Weight	38 kg - 83.8 lb



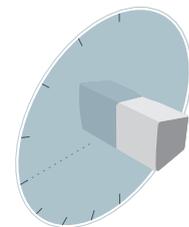
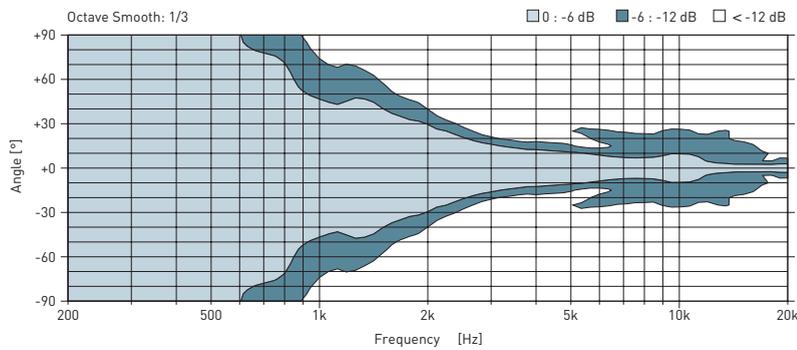
DIMENSIONS



BEAMWIDTH

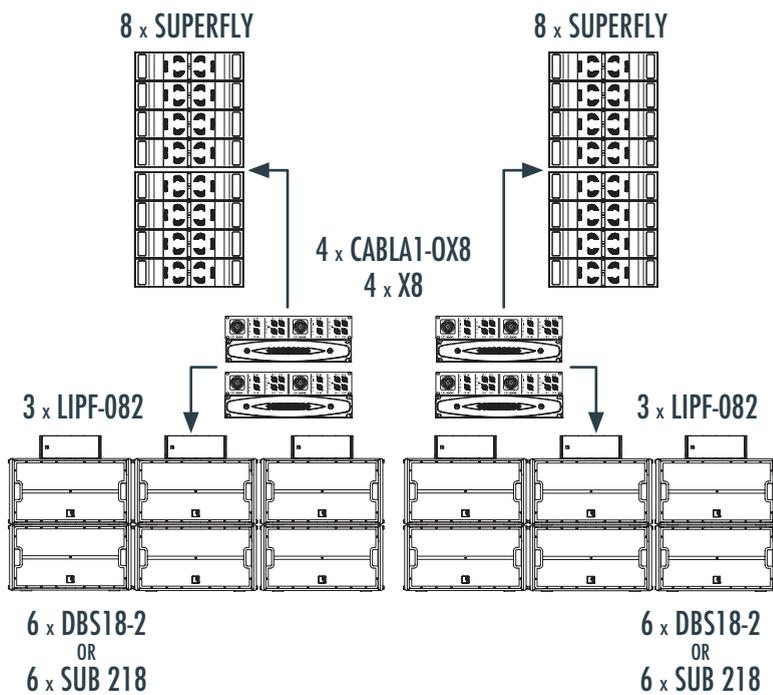
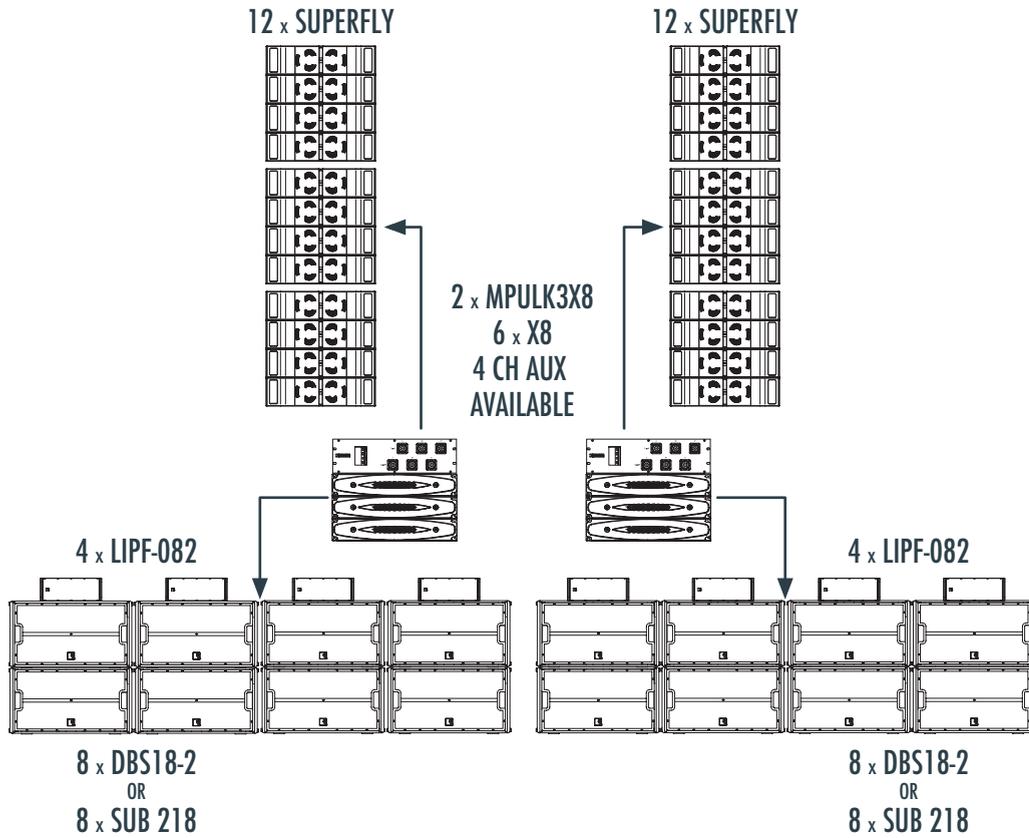


HORIZONTAL



VERTICAL

SYSTEM CONFIGURATIONS



NOT SEEN OR HEARD, BUT VITAL SIMPLE AND ACCURATE INTEGRAL RIGGING

Whether flown or ground-stacked, line-array modules are totally reliant on their rigging systems. Much more than just a method of attaching loudspeakers to each other, this key design element is essential to maintain appropriate spacing between transducers and thus utilise the established principles of acoustic coupling.

This in turn allows accurate predictions using the OpenArray program and ultimately a predictable acoustic performance. Superfly uses the same road-proven and very popular integral rigging design as our Mantas 28 loudspeakers. Made from lightweight aircraft-grade aluminium, its design allows inter-cabinet adjustment from 0° to 7.5° in 0.5° steps, shown on a dedicated splay-angle indicator.

An additional 0.25° position allows the uppermost cabinets in an array to deliver optimum performance in the far-field. The same super-lightweight (just 21 kg) top frame is also part of the rigging, allowing up to 16 Superfly enclosures to be suspended from a single frame.



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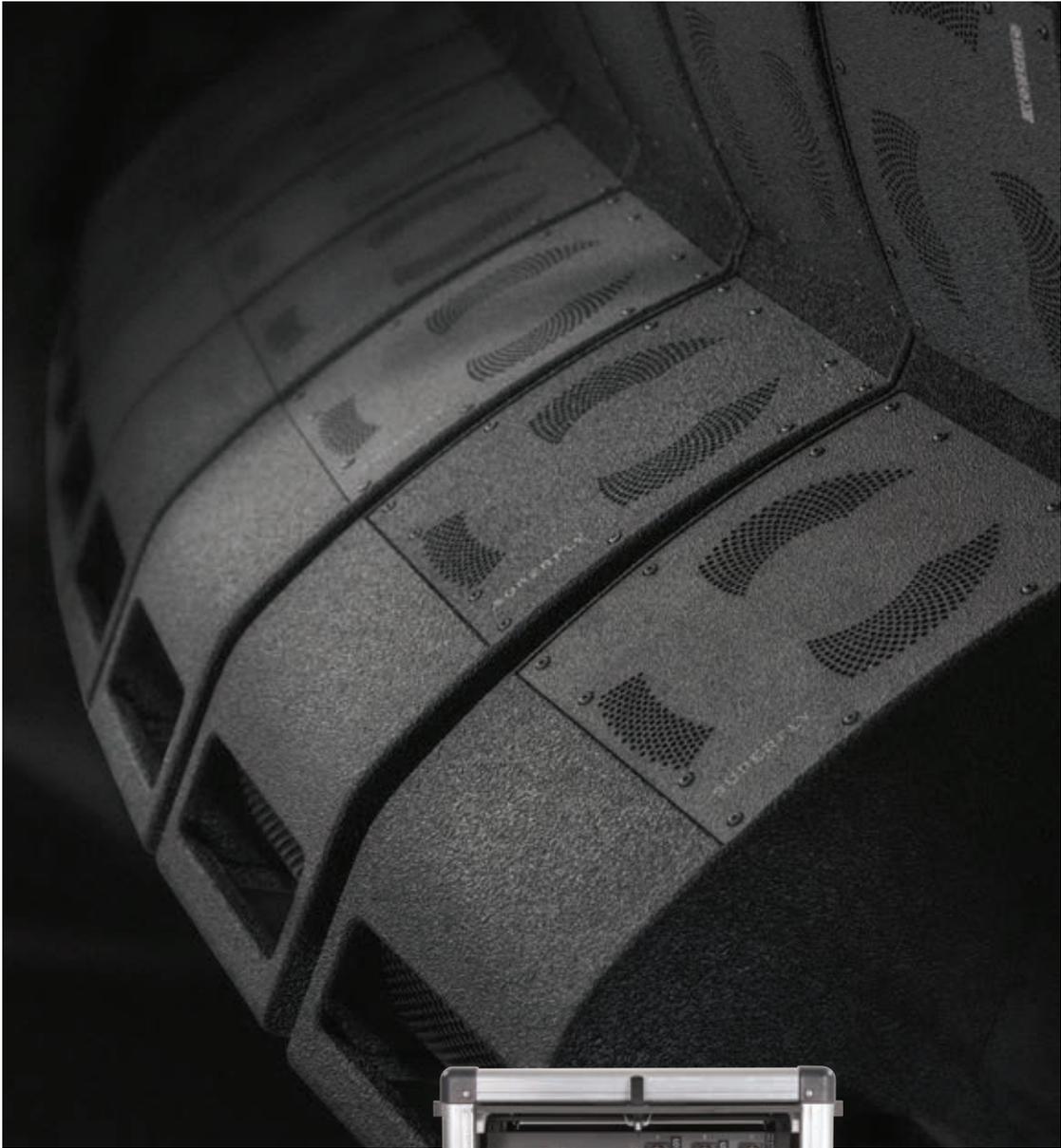
SUPERFLY aluminium main frame with integrated rigging hardware, to rig up to 16 SUPERFLY



FCASESFL-2P

Flight case for two SUPERFLY enclosures

SYSTEM AMPLIFICATION AND ACCESSORIES



CABLA1-GT0



MPULK-3X8



AMP-RACK 12 UP



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OUTLINE S.R.L.
Via Leonardo da Vinci, 56
25020 Flero (Brescia) Italy

Tel. +39 030.3581341
Fax +39 030.3580431
info@outline.it

Outline US
info@outline-us.com
(336) 793-5313
(575) 741-5069

