

# WHY MLA WINS

The Economic Rationale

 **MLA**<sup>®</sup>  
MULTI-CELLULAR LOUDSPEAKER ARRAY





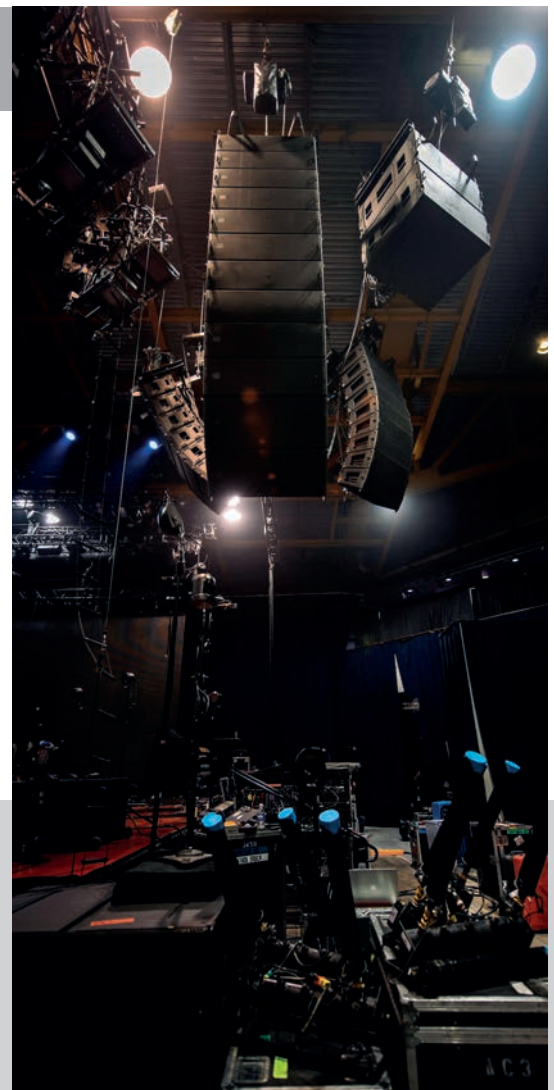
OSA Takes Largest US Inventory of MLA

## Keep the Boxes Moving

The downward pricing pressure on the industry makes every facet have to work that much harder to justify its place. MLA represents the best of both worlds: it's priced competitively to other major systems and yet is a significant leap forward for front-to-rear audience consistency and noise spillage control. But its economic value goes much deeper:

- Be safe in the knowledge that MLA can provide consistent audience coverage, regardless of venue acoustic challenges such as sports venues, large cavernous arenas, outdoor festivals and difficult theatre layouts
- It's equally at home ground stacked or flown, in large scale arenas or smaller theatres, so its universal nature improves its productivity
- In large indoor venues, given its coverage consistency and long distance throw, there is no requirement for delay systems which ultimately leads to more ticket sale potential and improved line of sight
- MLA has real benefits for transportation and environmental cost of ownership when considering its smaller footprint and weight, alongside its extreme electrical efficiency
- Our MLX subs are also equivalent to almost twice the power output of generic industry subs, so you require a lot less kit to do a better job
- Included in the pricing is an impressive array of extras: casing, network infrastructure, signal and mains distribution, audio matrix units, software and training

In short, the total economic benefit of MLA makes it a truly smarter investment.



## MLA – Multi-Cellular Loudspeaker Array

The multiple award-winning MLA, MLA Compact and MLA Mini systems represent a new direction in the way loudspeaker arrays are configured and controlled. They deliver much more consistent sound across the audience compared to previous technologies, such as line array.

With line array, sound levels and frequency response can vary widely, depending on the distance from the array. This is because line array technology generally aims to produce coherent wavefronts as they exit from the speaker grilles — often way up in the air in real-world applications. The system-tech then ‘manages’ whatever comes out of the array using simple zoned EQ and by scrolling through preset libraries to find a ‘best-fit’ set-up when the sound arrives on the audience floor.

MLA (Multi-cellular Loudspeaker Array) technology completely reverses the situation specifying exactly what SPL and frequency response is required at the front rows, the mix position and the rear seats, and then using this information to automatically control the array to produce that result.

With MLA technology, cellular drive is combined with fast, automated intelligent software to hold both frequency response and SPL's within a very tight window from the front rows to the rear balconies.

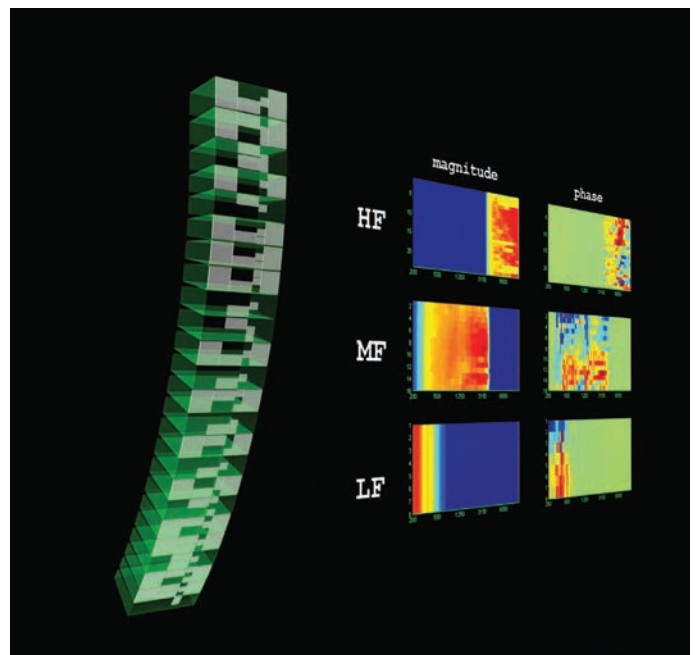
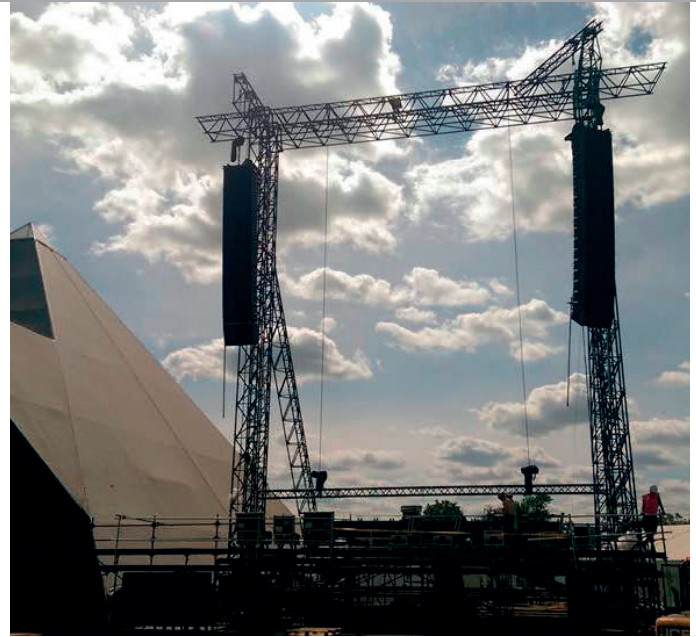
### AUTOMATED SOFTWARE

Each full-size MLA enclosure has 6 separate channels of onboard DSP and Class D amplification — 1 for LF, 2 for midrange and 3 for HF to control and drive each individual cell. An MLA array of 24 enclosures has 144 cells, each independently controlled by DISPLAY2.1™ automated intelligent software.

With every cell under computer control, MLA systems are not bound by the 3dB decrease in SPL with doubling of distance that is associated with line array. Normally an MLA array is programmed to be 3-4dB quieter at the rear, compared to the front, but it can achieve exactly the same level throughout if desired.

DISPLAY2.1 calculates the array tilt and splay angles in 2-3 minutes. Whilst the array is being rigged, it calculates the DSP filter coefficients which will achieve the specified result. Once rigged, the DSP parameters 3,600 per MLA enclosure are uploaded via the inbuilt U-NET™ digital network.

‘Hard avoid’ areas such as behind and below the array, ceilings, balcony edges and beyond the venue perimeter can be programmed in. Vertical coverage can also be fine-tuned electronically in-situ to cope with changing environmental conditions and last-minute changes in rigging height.



MLA cellular drive



Automated optimisation

# WHY MLA WINS



## Almoe General Manager, Glen Dougherty

“Our decision was entirely based on the quality of the system and its future proof capabilities,” said Dougherty. “Our growing business, and the increasing size of events we are called on to service, also required us to look for a larger PA system to cater that requirement.”



“ Our decision was entirely based on the quality of the system ”

Glen Dougherty, General Manager, Almoe

## Ryoichi Hashimoto, Managing Director, Hibino Sound

Ryoichi Hashimoto, Managing Director, Hibino Sound, explained: “We decided on the MLA investment because the promoters of summer outdoor festivals are increasingly demanding the absence of delay towers from festival sites and a need to solve offsite noise issues. We also like the fact that its calculation ability is extremely accurate. The benefit of this is that we can get a result that corresponds with what we have planned in the simulation.”

MLA also benefits from its size and weight ratio, which given regulations in Japan mean that the system provides no obstacles for its deployment. “In Japan, the weight of the rigging is strictly regulated, but MLA’s weight is similar to systems we have used in the past — even though it is powered. So, it is good for us to be able to plan as we did before.”



# WHY MLA WINS

John Carroll, Managing Director, RG Jones

RG Jones Sound Engineering was the first UK Company to invest in the system in 2012 and has witnessed the systems growing reputation first hand. As John Carroll, MD, said, "We were not content to follow the crowd when it came to choosing our flagship system. The MLA is the next generation and there's nothing out there to match it, and our continued support from Martin Audio is second to none."

“ Martin Audio’s MLA is the next generation and there’s nothing out there to match it ”

John Carroll, Managing Director RG Jones



Glastonbury Festival, 2014



# WHY MLA WINS



Iwao Tsurusawa, Director, MSI Japan

“ We believe MLA will now be our main weapon for the foreseeable future ”

Iwao Tsurusawa, Director, MSI Japan



55,000 Seat Tokyo Dome

One of Japan's leading PA companies, MSI Japan, has been achieving growing success since purchasing a large number of Martin Audio MLA enclosures for its inventory in August 2013. In fact by the end of the year they were providing MLA systems for more than five tours at one time. Iwao Tsurusawa, director of MSI Japan, explained why the MLA system has been proving so popular.

“When we used the MLA system in the Tokyo Dome for the first time [with TVXQ in June 2013], it was even more accommodating than we had imagined as we were able to run it without using the delay tower. The production director was deeply impressed by the performance of MLA and specified it for use thereafter in large venues.

“It has not only performed excellently in huge venues, but also earned a good reputation in medium venue shows. Working with one of our long-time clients in a medium sized hall, the artist concerned awarded high marks for the unprecedented ‘natural’ sound quality and user-friendliness of the system. And so from the beginning of this year they have started to use the MLA system regularly.

“Without question, the number of clients and production teams now recognising the outstanding performance of the MLA system is rapidly increasing. In other words, we are establishing MLA systems in various sized venues,” says Mr. Tsurusawa.

So, can we confidently say that the MLA system is living up to clients' expectations?

Mr. Tsurusawa explains, “Basically, by using other branded systems we have to deploy delay towers. In some cases, we have tried to set up the systems without delay towers to maintain high sound quality, but have never achieved

the desired results. By using MLA we have saved time and effort in setting the towers, at the same time ensuring high sound quality, and living up to our clients' expectations. In addition, by not needing to apportion space for delay towers, we have freed up more available seats for the client, and for audience needs.”

Furthermore, the MLA system has been great for open-air stadiums such as Seibu Dome and Pacifico Yokohama (in addition to Tokyo Dome), which have historically been dogged by offsite noise pollution. MLA could deal with this efficiently, and consequently neighbourhood complaints have drastically decreased, he says.

This has not only been beneficial from a technical aspect, but also enables good profit to be made. “For this type of huge venue we generally need to deploy between two and four delay towers by using other branded systems, and so now the production teams can make budget cuts on speaker systems and related expenses. And as for us, we are happy that MLA doesn't require a lot of time to set up and disassemble.”

Mr. Tsurusawa believes that MLA will help to underpin the future prospects of MSI Japan.

“All the existing speakers in our inventory have been purchased in the past decade, so we take into account the deterioration of the systems and are concerned about their ongoing maintenance. Furthermore, it was to accommodate the growing demands of production teams these days that led to us to invest aggressively in MLA in August 2013, although we had been working with MLA systems for nearly two years. We believe MLA will now be our main weapon for the foreseeable future.”

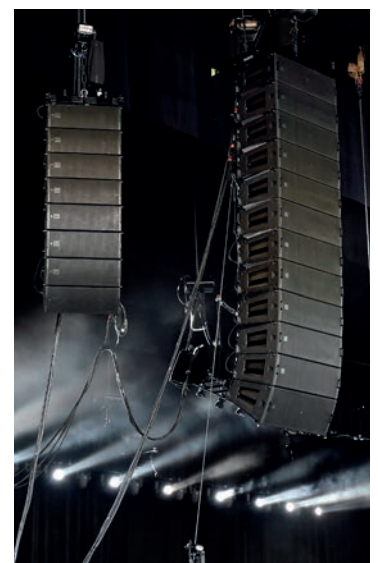
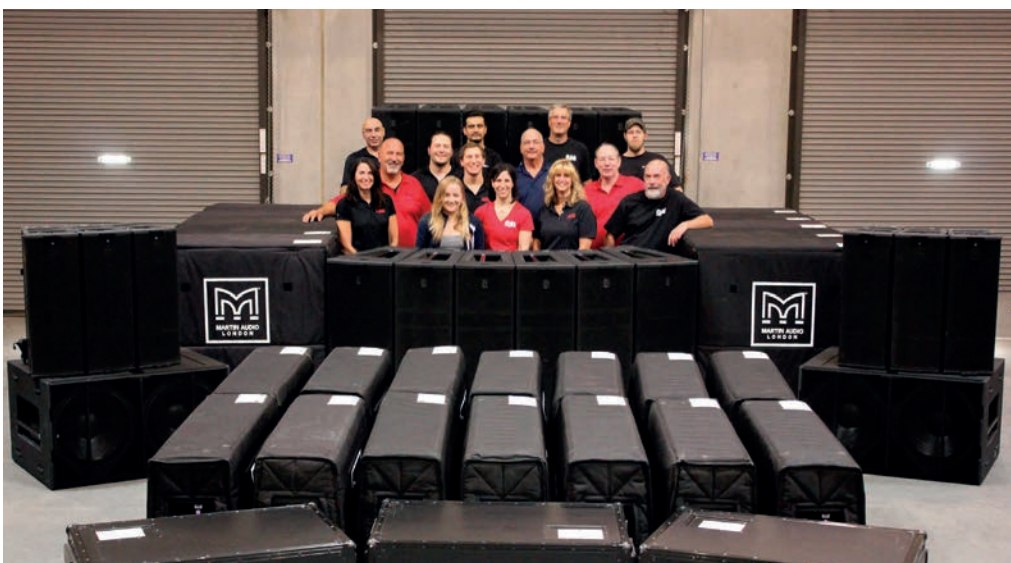
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## Jim Risgin, Vice President, OSA

Asked about the MLA acquisition, OSA Vice President Jim Risgin said, "We believe in the product, technology and, most importantly, the result that MLA delivers. It's the first technology in the last 30 plus years that is truly delivering sound in a new and exciting way as far as I'm concerned. Even with the obvious benefits the Multi Cellular drive brings such as SPL control, consistent audience coverage as well as out of area rejection, it still amazes me how good it sounds every time I turn on the system. Simply input the room calculations and MLA in turn delivers the expected coverage as well as giving the engineer a stellar sonic canvas to work with. Now I can allocate my time to my craft and art of mixing rather than spending the time

mastering conventional systems to gain similar results. This translates into a better end product for our clients as well as savings in time and labor.

In terms of its performance, MLA never runs out, it never stops. I think it's the best sounding system with the most even coverage out of the box. Every seat gets the same high quality sound regardless of the location, which helps our clients reduce costs for acoustical treatments in some venues. At this point, the level of the MLA system control has become second nature. For me to work on something other than MLA has become an eye-opener rather than the other way around."



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Jim Risgin, Vice President, OSA

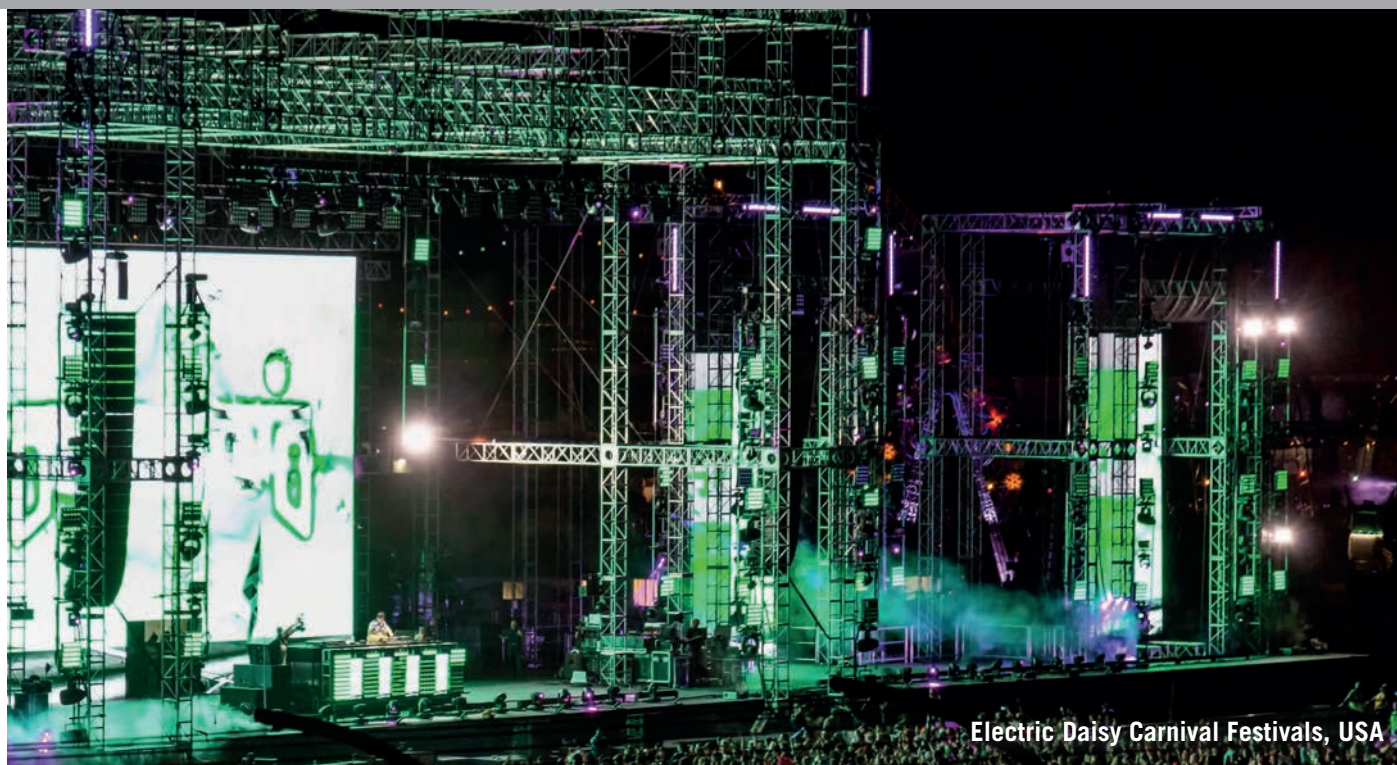


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Jay Curiel, Vice President, 3G



Electric Daisy Carnival Festivals, USA

Asked about MLA, 3G Vice President/Owner Jay Curiel, said, “The system was surprisingly easy to set up and our engineers were really happy with the way MLA performed. It did everything it’s supposed to do, especially in terms of controlling the sound. We were able to easily manage the SPL levels and cut off the coverage where we wanted while providing all the power and impact the audience expects. MLA passed with flying colors.”



Eli Stearns, President/Owner of 3G added, “We’re excited to be a partner in the prestigious MLA Network which includes so many leading audio companies. It’s great to be part of the next wave of innovation and technology, especially in terms of controlling SPL. Our primary application for MLA will be festivals and special events in city environments, but we expect the system to grow our touring market as well.”

“Our engineers were really happy with the way MLA performed”

Jay Curiel, Vice President, 3G





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Mike Scarfe, Owner, MHA Audio

“ its unparalleled sonic quality sets a new standard of excellence in professional audio ”

Mike Scarfe, Owner, MHA Audio



Lisner Auditorium, Washington DC

Commenting on the MLA acquisition, owner Mike Scarfe said, “MHA Audio is excited to offer the MLA System to our clients. The MLA’s ability to create a uniform response through the listening area, control coverage, and its unparalleled sonic quality sets a new standard of excellence in professional audio far beyond anything that is currently available. In addition, there are considerable cost savings with transportation. This entire MLA system, which is capable of covering most outdoor shed style venues, will fit in one 26 ft. box truck.”



Marc De Baets, ARC-Productions

On purchasing MLA Compact, Marc De Baets of ARC-Productions said, “The biggest advance of the system is the even coverage, making it a great tool to counter undesired noise pollution — a very hot item in Belgium. The compact size and weight, requiring less truck space, were other advantages.”



“ a great tool to counter undesired noise pollution ”

Marc De Baets, ARC-Productions

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## Wayne Barker, Managing Director, W E Audio

W E Audio's reasons for adopting MLA Compact, with its unique controllability, had been entirely logical. "We specialise in providing site public address and noise abatement — and so we needed a system that was musically versatile, with an output that belied its size, and would open up a lot of doors," said Wayne Barker, Managing Director. "We believe that ownership of this system will enable us to undertake more contracts in the sector and become a benchmark for local authority work. This system is pure black magic. With it we will now be able to do any type of show — from a small town hall to the Royal Albert Hall."



“This system is pure black magic”

Wayne Barker, MD,  
W E Audio



## Lars Wern, DM Audio

On purchasing MLA Compact, DM Audio's Lars Wern said, "The system is very powerful for its size and sounds great. With the predictability and controllability its totally outstanding and puts it in a class of its own. I believe we will be able to use it in scenarios where it will help keep the SPL down for neighbours while maintaining a good punch for the spectators, since we are faced with a lot of situations nowadays where SPL restrictions are imposed at festivals. A further advantage, he says, is the possibility of eliminating sound leakage on to the stage area. Since we also handle many classical concerts, where there are lots of open microphones, this will be an extremely important and popular feature."

“its totally outstanding and puts it in a class of its own”

Lars Wern, DM Audio



Classical Spectacular

# WHY MLA WINS

## Paul Timmins, General Manager, Capital Sound

Paul Timmins General Manager, Capital Sound: “the fact that the MLA Mini behaves in exactly the same way as the other MLA's, means you can do everything in a smaller room with this system as you can in the larger spaces. The amount of power produced from four boxes on a pole fixed to a sub was breathtaking — and yet it's so light it can be handled by one guy.”

He said that the sonic benefits naturally led on to the economic benefits, given MLA Mini's low weight mass and tiny footprint. “The system is ideal for small showcases, and record label events. A lot of small gigs are tightly budgeted and to be able to package a system like this that fits into a van — rather than needing to go to the additional expense of a truck — is fantastic. Each box only weighs 13 kilos each so with two stacks of four you are only looking at a total weight of around 100kg.”



The Kooks, Virgin Records, UK

## Nic Black, Director, Pyramid AV

Pyramid AV Director, Nic Black Nic Black: “Having the Mini MLA system at Westpoint this year reaffirmed to me that it is possible to have beautiful sound in a challenging space. It was a great opportunity to have demonstrated the simple fact that well engineered audio can enhance the experience of the listener. We have had much positive and complimentary feedback regarding the sound and it was without doubt the best we have had.”



“ it is possible to have beautiful sound in a challenging space ”

Nic Black,  
Director,  
Pyramid AV



Westpoint, UK

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## Grant Turner, Director, London Speaker Hire

London Speaker Hire Director, Grant Turner: "We had wanted this type of modular system for some time and researched the market to narrow down the options. But MLA Mini is pretty much in its own class." He says the big advantage of MLA Mini is the number of different set-up options. "Where you would traditionally need to use a flown line array in certain smaller venues, nearly all current systems are so large that they are impractical. With the MLA Mini we are spoilt for choice. The compact footprint means we can have a two-man set up on certain events whereas we would have needed double that. This in itself is an immediate cost saving towards ROI."

“ MLA Mini is pretty much in its own class ”

Grant Turner, Director,  
London Speaker Hire



County Hall, London, UK

For more information about MLA, training and relevant contacts please visit [www.martin-audio.com](http://www.martin-audio.com)

Martin Audio Ltd  
Century Point, Halifax Road, High Wycombe  
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312  
Facsimile: +44 (0) 1494 438 669  
Email: [info@martin-audio.com](mailto:info@martin-audio.com)

[www.martin-audio.com](http://www.martin-audio.com)

