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Efficiency at the Core

Reducing Cost of Ownership

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WHY DOES EFFICIENCY MATTER ?

No matter the size or scope of the project, conventional approaches to deploying a loudspeaker system while effective are often inefficient in terms of energy usage and time spent on installation. Innosonix was developed with a clear goal: to streamline the process of deploying hundreds, if not thousands, of loudspeakers without any sonic compromises.

This brochure highlights the key features that were purposefully developed not only to enhance the overall experience of setting up a loudspeaker system, but also to reduce the total cost of ownership when choosing an Innosonix solution.

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WHY USE MULTIPLE PIECES OF EQUIPMENT?

When you can use one unit to achieve the same result!

In conventional loudspeaker system deployments, integrators typically rely on independent amplifiers to power the loudspeakers. However, these amplifiers often lack high channel counts with most offering a maximum of eight channels in 2U or 1U formats. As a result, managing a large number of loudspeakers quickly demands a substantial equipment footprint.

And that's only the beginning.

We haven't yet accounted for the additional space required for external loudspeaker processors — essential for implementing limiting, delay, and EQ for each speaker. Then there's the cost of infrastructure needed to house, power, and cool all these devices.

On top of that, each unit often relies on its own proprietary software, forcing integrators to juggle multiple platforms just to deliver a cohesive solution to the end user.

At Innosonix, having experienced these traditional workflows first hand earlier in our careers, we clearly saw the drawbacks: bulky systems that consume excessive space and energy, along with complicated, fragmented software environments. Beyond the economic inefficiencies, deploying such systems can be both time-consuming and frustrating.

So, how did we solve these challenges?

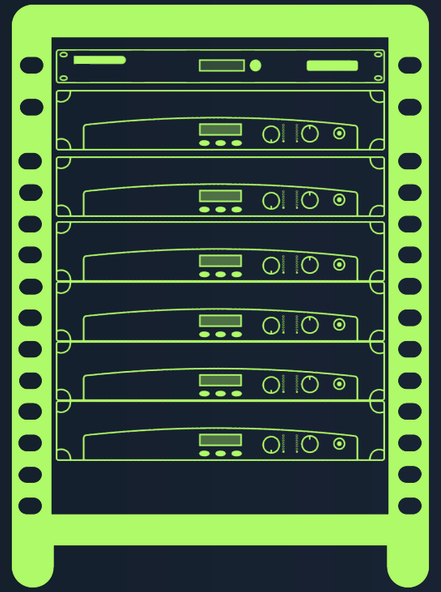
We developed the **LP²** and **D²** ranges of digital multichannel amplifiers

ADVANTAGES

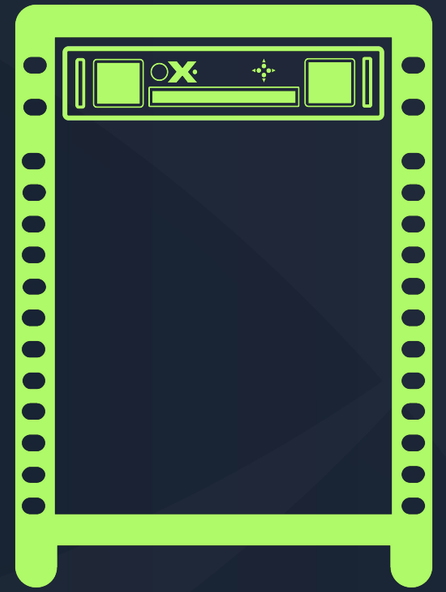
Their most immediate advantage is the ability to deliver high channel counts in compact 2U and 1U form factors, drastically reducing the required rack space for large-scale installations. But these devices are far more than just amplifiers. With advanced built-in DSP, both the ***LP²*** *and* ***D²*** *can function as fully-featured loudspeaker processors.*

By adopting Innosonix hardware, integrators can significantly reduce the physical footprint, streamline installation, simplify system control, and lower overall utility costs — all without compromising on performance.

PAST



FUTURE



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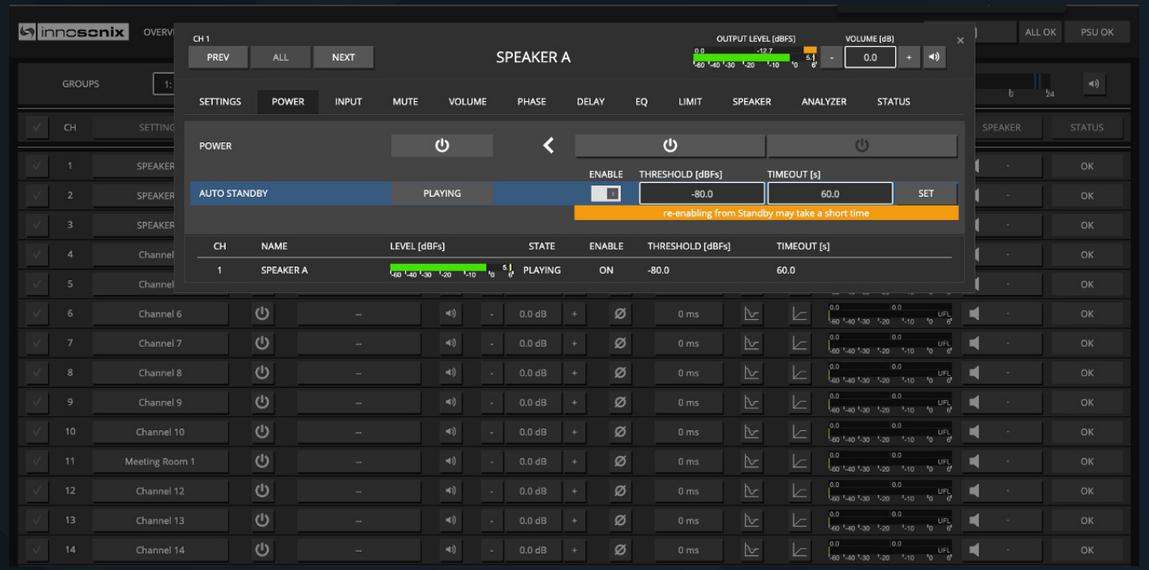

WON'T MORE CHANNELS USE MORE POWER?

Like most electronics installed in commercial settings, once set up, they are rarely turned off. In large-scale projects, inefficient energy use can lead to high utility costs. At Innosonix, we focus on efficiency both in streamlining the time spent deploying a sound system and in reducing the amount of energy that system consumes.

That's why, when developing our **D²** Range, increasing overall efficiency was a key design goal. When the unit is powered on but idle (i.e., no signal running through it), the 32-channel variant the **MA32/D²** consumes just ***125W*** (3.9W per channel), which is already impressive.

To push efficiency even further, we developed Auto Standby Mode, which powers down individual channels based on a signal threshold. When a signal returns, the channel automatically powers back on all within **230ms**.

So, how much of a difference does this make for an **MA32/D²** ? It can reduce idle power consumption to just ***37W*** — a ***70%*** energy saving.

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WHAT IT MEANS ON YOUR ENERGY BILL

Illustrating how improvements in efficiency translate into real-world savings is always a challenge, as many variables must be considered. How is the product being deployed? What is the specification of the load connected to the amplifier outputs? What type of content is playing through the system — is it highly dynamic, requiring greater voltage to accurately reproduce?

These are just a few of the many questions that could be asked, but by working with a simplified scenario, we can make this complex topic easier to understand.

Let's assume you're deploying a sound system in a hospitality environment — specifically, a large hotel foyer. During working hours, the system plays subtle, mood-setting background music. For 10 hours a day, the system runs with audio being actively fed to it. For the remaining 14 hours, when guests are asleep, the audio stops, and the devices switch to idle mode.

Now, let's also assume that all devices are powered by a 230V source, and the connected speakers each require 100W at 8Ω.

Cost Per Year MA32/D²

Running in Idle for 14 Hours Per Day	Running in Active for 10 Hours Per Day
Power Consumption When Idle – **37W**	Power Consumption When Active – **125W**
Converted to Kilowatts– **0.037kW**	Converted to Kilowatts– **0.125kW**
Converted to Kilowatt-Hours per day - **0.518kWh**	Converted to Kilowatt-Hours per day - **1.25kWh**
Determining the running cost per day – **£0.14**	Determining the running cost per day – **£0.34p**

Total Cost Per Year **£175.20**

Cost Per Year Alternative Brand

Running in Idle for 14 Hours Per Day	Running in Active for 10 Hours Per Day
Power Consumption When Idle – **200W**	Power Consumption When Active – **261W**
Converted to Kilowatts– **0.28kW**	Converted to Kilowatts– **0.261kW**
Converted to Kilowatt-Hours per day – **3.92kWh**	Converted to Kilowatt-Hours per day - **2.61kWh**
Determining the running cost per day – **£1.06p**	Determining the running cost per day – **£0.705p**

Total Cost Per Year **£644.23**

**Disclaimer: Calculations are based on 2025 Ofgem figures for the UK Energy Price Cap, using the average cost of 27.03 pence per kilowatt-hour (valid from 1st April to 30th June).*

IMPROVED TOTAL COST OF OWNERSHIP

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Total Cost of Running 32 Channels per Year

Total Cost Per Device Per Year: **£175.20**

Total Running Costs Per Year for 32 Channels: **£175.20**

ALTERNATIVE BRAND

Total Cost of Running 32 Channels per Year

Total Cost Per Device Per Year: **£644.23**

Total Running Costs Per Year for 32 Channels: **£2,576.92**

As illustrated in our example, over the course of a year, an Innosonix solution can significantly reduce the average running costs of an AV package.

In an age where businesses must take greater responsibility for their environmental impact, Innosonix offers a tangible way to demonstrate real savings.

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Get In Touch

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Manufactured in Germany