Powersoft UNICA



Bringing a touch of Firenze to Barcelona, Powersoft kicked off the 2023 edition of Integrated Systems Europe in style, wowing the first-day crowds with the highly anticipated launch of its third-generation fixed-install amplifier platform, UNICA. In Italian, UNICA both means Unique and Single, and this is what UNICA delivers to the audio industry: a unique and single new-generation amplifier platform that is versatile enough to cover a wide range of applications, while at the same time delivering the highest level of audio quality, reliability and efficiency for which Powersoft is renowned. Most importantly, UNICA is able to deliver consistency across the entire family range of Powersoft amplifiers.

The most advanced amplifier platform in Powersoft’s 28-year history, UNICA leverages next-generation, cloud-based technology to provide a safe, consistent user experience for any size of install. With an eye firmly on future requirements, UNICA promises users simple integration, straightforward configuration and low maintenance costs well into the future, all in one easily upgradable and futureproof package. The UNICA range comprises three four-channel (UNICA 9K4, 12K4 and 16K4, with 9,000W, 12,000W and 16,000W respectively) and three eight-channel models (UNICA 2K8, 4K8 and 8K8, with 2,000W, 4,000W and 8,000W).

Featuring high power density, top-shelf sound quality and class-leading efficiency, and backed by no less than five new patents and four existing ones, UNICA represents the third and latest generation of Powersoft amplifier platforms, designed to meet the requirements of any size of installation with a single product family, explains Powersoft’s R&D director and co-founder, Claudio Lastrucci.

“UNICA is engineered to accommodate upcoming functions and feature expansions to fulfil the most demanding audio design requirements for years to come – all within a single platform,” says Lastrucci. “By listening to customer feedback and market demands, and drawing on our passion and R&D ingenuity, we have, with UNICA, created an amplifier platform truly fit for the future.”

In conjunction with Universo, Powersoft’s new cloud-based platform, UNICA represents a significant milestone in the development of cloud-based devices, offering cloud-native connectivity and remote monitoring functions without the

Phoca PDF

need for specific product registration or configuration. Cloud integration allows for the storing and sharing of projects online, keeping the amplifier’s firmware up to date, or simple integration in third-party systems through APIs. UNICA enables install professionals and system integrators to cover multiple applications, in any size installation, with a single amplifier platform family. This will support the creation of solid value and consistency among different applications during the whole project lifecycle – for a futureproof and more effective job.

“As a single, versatile platform with broad power range options, functionalities and networking capabilities, suitable for a myriad of applications from high-quality background music to performance venues, UNICA unlocks the power of consistency for busy, hard-working AV integrators and fixed-installation professionals,” comments Lastrucci. “Specifying amplifiers from a single product family that can cover a wide range of SPL requirements translates into tidier racks and a new level of user experience,” he adds, “while user-friendly features such as a straightforward third-party communication protocol and simple amplifier replacement with Easy Swap help eliminate any support headaches.”

UNICA’s all-new power supply section takes Powersoft's signature efficiency and real-world operability to the next level, resulting in less power dispersed through wasted heat. The latest generation of single-stage power factor correction (PFC) and state-of-the-art system-on-chip technology processing grant low power consumption and thermal dissipation, while Powersoft’s proprietary Smart Rails Management (SRM) allows the supply rails to adapt in real-time to the required output voltage to maximise efficiency and reduce idle losses. An Eco Mode further diminishes consumption when engaged, resulting in cooler racks and drastic reductions in long-time running costs.

UNICA also delivers on Powersoft’s hard-earned reputation for industry-leading sound quality. The proprietary next-generation architecture allows high-quality amplification through newly designed input and output sections, boasting the highest signal-to-noise ratio ever achieved on a Powersoft amplifier. This new technology platform grants faithful reproduction of line-level and digital signals in high-performance installations.

It additionally introduces the next generation of Powersoft’s industry-leading DSPs, based on the latest system-on-chip technology. The DSP section is operable even when only PoE+ power is available, simplifying deployment and pre-configuration operations.

System integrators typically spend valuable time and considerable effort in minimising system downtime. Good design practices and service-level agreements are therefore fundamental tools to avoid audio equipment failure. And in the event of a failure, reactivity is paramount: trained technicians need to access the installation, assess the situation and, when remote or on-site repair is not an option, replace the unit. They then need to program the new unit and run a series of tests before the audio system can be operational.

Phoca PDF

Powersoft solved this major industry issue by developing a novel functionality for hot-swapping amplifiers: Because each UNICA amplifier is able to automatically archive backups on a flash memory drive situated on the rear panel, users can easily replace a faulty unit with a new one in a matter of minutes, without any configuration or product knowledge.

Based on Powersoft's proprietary third-generation architecture, UNICA is optimised to reduce points of failure while allowing more accurate reproduction and improved performance compared with previous amplifier generations. An all-new power supply section facilitates efficient conversion, resulting in less power dispersion through wasted heat, while a new approach to heat management has resulted in fan noise reduction, making UNICA the quietest amp ever designed by Powersoft. A filter can also be easily accessed without any tools, making it faster and more convenient to keep the airways clear of dust.

Networking is achieved through three ethernet ports, allowing both AoIP and control redundancy and splitting control vs AoIP traffic. Thanks to a firmware-level protocol, audio over IP is managed through both Dante and AES67. Compared to existing Powersoft products, UNICA also benefits from enhanced Power Sharing developed for the output section, with each output channel capable of delivering up to twice the power when loaded asymmetrically.

"Being designed around future functionalities and added features, our new-generation platform guarantees customers maximum reliability and simplified operations throughout the entire project, from planning to completion," concludes Lastrucci. "This, combined with its reference-quality sound, industry-leading power efficiency and a straightforward user experience, makes UNICA a truly futureproof amplifier platform, and the new industry standard."

www.powersoft.com

Phoca PDF