**BOSCH**
Invented for life

TCP/IP
network

Dante™   IRISNet™

**EN54-16**   EVAC Certified
Emergency
Voice Alarm

# Flexibility right from the start

PAVIRO Public Address and Voice Evacuation System
with Professional Sound Quality

boschsecurity.com

# Keeping people **informed, secure, entertained**

With more than 100 years of experience in the design and development of electro-acoustic technology, Bosch is an established world leader in Public Address, Evacuation Systems, and Professional Quality Sound Systems. It is also world renowned for its commitment to superior technology, stylish design, and ease-of-use. Moreover, the latest powerful example of this commitment is the PAVIRO Public Address and Voice Evacuation System with Professional Sound Quality.

PAVIRO: Public Address, Voice Evacuation, and Professional Sound Quality

- ▶ Lowest power consumption of any system in this class
- ▶ Extreme flexibility: the system can accept architecture changes at any stage during installation and provide a wide range of announcement/music combinations
- ▶ From a single system to an IP networked solution, allowing decentralized applications and more system-wide audio channels.

- ▶ Fast, easy and complete set-up - both "Basic" and "Expert" configurations
- ▶ More than 30 minutes of flash memory for recordings of evacuation-related audio signals
- ▶ Zone monitoring on the call station
- ▶ Professional sound quality

**For small to medium-size applications**
PAVIRO is a unique, high-quality Public Address and EN54-certified Voice Evacuation System that also delivers professional quality sound, thanks to its premium 24-bit digital processor, superior digital-to-analog converters, and outstanding Signal-to-Noise Ratio (SNR). Its highly adaptable system architecture makes it ideal for small- to medium-sized offices, regional airports, mid-sized hotels, factories, schools, and department stores.

**Best-in-class**
Thanks to its powerful range of features, PAVIRO not only answers an extremely wide variety of application requirements, it also delivers best-in-class performance in quality, ease of installation, and versatility. At the same time, it minimizes operational costs thanks to low energy consumption and fewer batteries.

**Controller with DSP for single and networked applications**

**24 Zone Router**
with 4 channels

**2-Channel Amplifier**
2x500W Class-D

**Call Station**

**Call Station Extension**

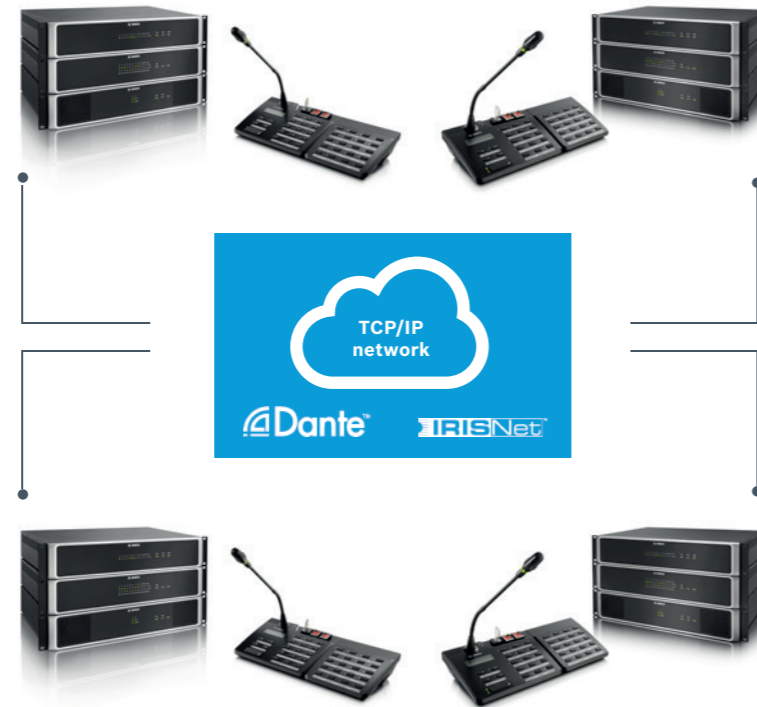| | PAVIRO (single) system | PAVIRO networked system (OM-1) |
|---|---|---|
| Controllers | 1 | Up to 4 |
| Routers | Up to 20 | Up to 39 |
| Amplifiers | Up to 50 | Up to 200 |
| Call stations | Up to 16 | Up to 64 |
| System wide audio channels | 4 | Up to 16 |
| Zones | Up to 492 | Up to 984 |

# IP Networking for **larger applications**

**PAVIRO network solution**
Using IP technology, PAVIRO provides a highly flexible, reliable and secure system solution with superior audio quality – independent of project size.

Equipped with the optional Dante network interface module (OM-1), it is possible to create a 16-channel Dante audio network between the individual controllers. This not only increases the size of the system, via up to four decentralized controllers, but also means less cabling using standard Ethernet connections and components – a big cost saving in multiple applications.

At the maximum configuration level, the PAVIRO system can address up to 984 zones with a total of 164,000 watts of amplifying power in one system, making it suitable for bigger installations. It also enables existing installations to easily adapt whenever the infrastructure of the building changes and additional rooms have to be addressed.

In addition, the network configuration provides redundant channels for safety purposes – in the event of an emergency these channels will always work for evacuation signals, even if a controller loses network communication.

# Flexibility for **specifiers and installers**

**Fast, efficient specification**
With PAVIRO, specifying a complete system is remarkably quick and simple – just a few parameters are needed to design a system. This means consultants can serve more clients and substantially increase turnover.

**Build a complete architecture**
PAVIRO offers both "Basic" and "Expert" configuration modes. The Basic configuration is a wizard which provides a step-by-step configuration guide. Using this wizard, a basic system can be programmed within 30 minutes whereas conventional systems can take hours or days. The Expert mode is based on the powerful IRIS-Net software which provides almost unlimited system design flexibility, perfect for optimising configurations in more complex applications.
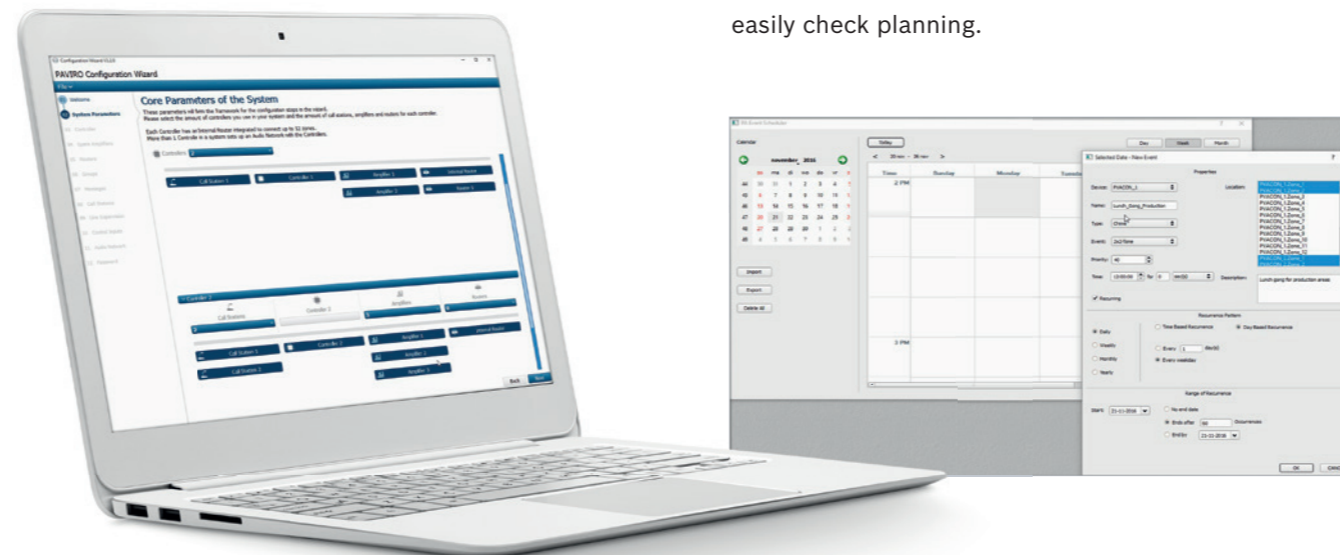
**Plan your event**
The scheduler function allows the user to quickly assign recurring events with prerecorded voice messages or sounds like chimes in a school. The user-friendly graphical interface includes a calendar view to easily check planning.

**Choose your own combination**
PAVIRO offers highly flexible announcement/music distribution combinations – thanks to its four-channel matrix architecture. For example, you can send classical music to one set of six zones and pop music to another. You can also send one or more individual announcements to any zone without disrupting the music. Depending on your needs, you can also choose one to four channels within each router – so you can either minimize power consumption (by minimizing the number of amplifiers) or increase flexibility even more. Such versatility is simply not found in other systems in this class.

**Less unexpected costs**
Installers of Public Address and Voice Evacuation Systems often need to estimate the total cost of a system with incomplete information - yet the installer is still required to stick to the initial cost estimate, even though the final system architecture has changed. With PAVIRO, no problem. That's because intelligent input switching and power load sharing makes it extremely flexible, allowing design changes to be made at any stage of the project without risk. This helps ensure the success of every installation.

# Quality music for **building owners and users**

**Professional-quality music**

PAVIRO is the result of industry-leading knowledge in professional sound, and includes technologies developed for the Bosch range of professional sound reinforcement audio products, with very high performance as a result. For example, the controller handles signals with over 100dB Signal-to-Noise Ratio (SNR). This means that building owners can offer high-quality music for their occupants as well as provide a Public Address and Voice Evacuation System with excellent speech intelligibility.

**Additional uses for auxiliary Inputs**

Each PAVIRO amplifier provides two auxiliary audio inputs enabling you to connect additional audio sources. This ensures that the system channels are not used for external inputs which are sometimes needed for AV presentations, for example. Additionally, PAVIRO's extreme flexibility and smart combination of an input and output matrix helps to maximize a hotel's suitability for business events and ensures the lowest number of amplifiers needed for your application and for Voice Evacuation.

Professional Sound Quality - with a superb signal-to-noise ratio, occupants can enjoy high quality music.
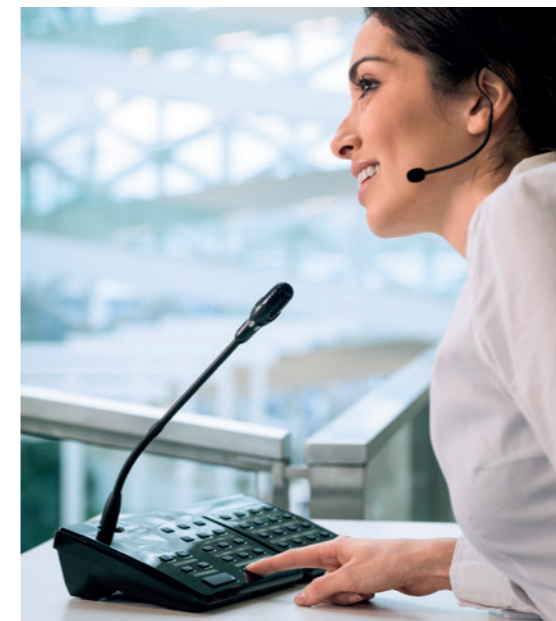
# Time and cost savings
## for everyone

**Low operational cost**
Operational costs are kept low because PAVIRO uses the latest high-efficiency class-D amplifiers and intelligent power-management hardware and software. These dramatically minimize power consumption.

**Low initial investment**
PAVIRO uses fewer amplifiers compared to other systems - thanks to the combination of "dynamic source routing" and "intelligent amplifier input switching" – to ensure a low initial investment. With fewer amplifiers in use, fewer batteries need to be replaced on a regular basis, lowering operational costs even more. In addition, when the networked solution is used, there are fewer cabling costs.





**From start to finish**
PAVIRO's advanced software and intelligent system architecture save time and costs at specification, at installation, and during the day-to-day usage of the system. Consultants will save time and define a complete system using just a few parameters. Installers will avoid unexpected costs thanks to the system's extreme flexibility. Building owners will minimize costs of ownership. And building occupants will feel safe in your building while enjoying high quality music and excellent Public Address speech intelligibility.

With PAVIRO everyone wins!

## Meeting the **latest standards**

PAVIRO meets major legislated requirements for voice alarm systems and is certified according to EN54-16. The system is also compliant with many local evacuation standards.

# Technical highlights

**Dynamic source routing**
Dynamic source routing and intelligent amplifier switching significantly reduce the number of required amplifiers. This reduces the initial investment and minimizes the power consumption.

**Flexible power load sharing**
Each router can handle up to 24 loudspeaker lines, using just one type of amplifier. This creates extreme adaptability in the system. Power load sharing over the zones (from 2W to 500W) makes the system even more flexible – allowing combinations of low and high power zones within a router.

**IRIS-Net integration with standard and advanced configuration**
PAVIRO includes a wizard for fast and easy configuration. In addition, the expert configuration provides a unique Task Engine programming environment for further options and flexibility.

**Professional Sound quality**
Wide bandwidth (50Hz-20kHz), with more than 100 dB Signal-to-Noise Ratio and very low channel crosstalk together deliver excellent audio quality.

# Security for everyone: PAVIRO is an EN54-certified Voice Evacuation System