

Smart *pi* ECOsystem

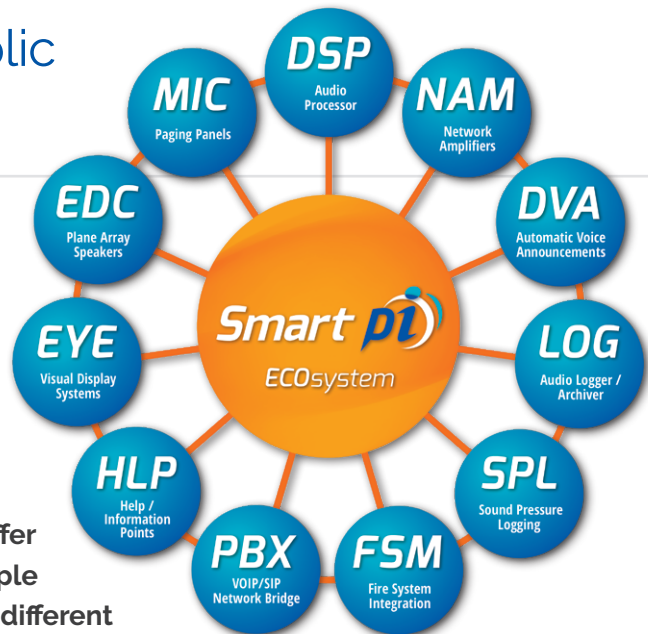
A fully integrated Smart Public Information ECOsystem

High quality hardware and software technology solutions for public information audio, display and distribution.

The Smart pi ECOsystem works as one seamless system across public spaces and transportation hubs of all sizes. Designed to look, feel and work as one.

Smart pi ECOsystem has been designed to offer ease of operation for the user. Training is simple as there is no need to learn to use a range of different products. All of the components of the Smart pi ECOsystem range work as one from a web-based configuration.

The size of the ECOsystem is scalable, from the smallest installation right up to the huge systems containing 10,000 devices and beyond. It uses and supports all open standards such as GTFS and GTFS-R for the transport industry. For control, AES 70/OCA are used and fully supported by the Ecosystem.



AUDIO



The Smart pi DSP (Digital Signal Processor) is the next generation of digital PA processor with massive audio processing ability that can support the smallest to the very largest of systems.

The Smart pi DSP is completely modular and future upgradeable via simple firmware updates. It is based on industry standards including Dante and OCA/AES70.

All configuration is managed in a simple web interface and can be externally controlled via OCA/AES70.

The hardware comes in a 1RU Node or 2RU SuperNode format being able to manage up to 384 zones in a single unit.

As with all Smart pi products, all components are high quality and industrially rated.

Smart pi ECOsystem

Smart pi NAM

The Smart pi NAM (Network Amplifier Modules) are commercial and industrial amplifiers that can be installed in the field and close to the speaker location, this allows ease of changing audio zoning, sources, priorities and volume for every single speaker within the system.

Indoor and Outdoor (IP66) NAMs are available for each model.

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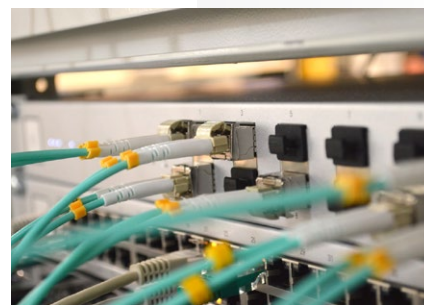
Smart pi DVA

The Smart pi DVA is our Automatic (Digital Voice Announcement) system and is perfect for the transport industry.

Incorporating a web-based GUI with mobile support that is easy to operate, with multi-language support, text to speech engine and more.

Messages are clear and understood, every time with a built in scheduler, GTFS and GTFS-R support simple integration for automated announcements have never been this easy.

The Smart pi DVA is the perfect fit for large scale transportation hubs where clear, timely and correct announcements to passengers are key.



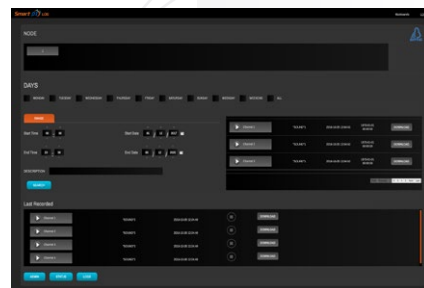
Smart pi LOG

The Smart pi LOG (Audio Logger) can scale from 64-128 channels with a single server, and to higher channel counts by adding Node Servers, with the ability to have over 1000 channels in a single system.

All users access the Server via the web interface which includes mobile support. Users can search, listen and download audio files.

As with all Smart pi ECOsystem products, Active Directory and LDAP are available for authentication, ensuring only required users have access to the system.

Speech to text conversion is available using Google AI and can be stored alongside any audio as meta data. Additional encryption options are available if additional security is required.



Smart pi ECOsystem



Smart pi SPL

Professional Sound Pressure Level Metering & Logging (Smart Pi SPL) with dual inputs.

The Smart Pi SPL has both web and HDMI interfaces and includes all requirements for government mandated metering including configurable display values and logging.

The system is compatible with any Class 2 microphone and allows for a measurement chain according to IEC 61672-1. An optional MEMS microphone is also available.

The system is easy to calibrate and generates calibration certificates via the web interface.

Logging files can be exported in a variety of formats.



Smart pi FSM



The Smart pi FSM or Fire Safety Manager is designed to comply with the EN54-16 standards and can be used to make a Smart pi ECOsystem compliant to EN54-16.

Additionally, the Smart pi FSM can be used to monitor and control audio for other standards such as the AS 60849 Sound systems for emergency purposes (IEC 60849:1998 MOD) standard in Australia.



Smart pi MIC

Paging Microphone

- POE Powered Paging Microphone
- Completely configurable remotely via Smart pi DSP or standalone configuration via web page
- Both physical and touch buttons
- Local speaker output for monitoring of destinations and intercom operability
- AES70/OCA Control
- Dante Audio over IP Standard



Preliminary Design

Smart pi ECOsystem



Smart pi EDC

The Smart pi EDC is a partnership with EDC Acoustics to integrate EDC's Plane Array™ technology which allows systems the ability to create 3D wave fronts.

Each speaker is capable of vertical and/or horizontal steering as well as customisable wave shaping, allowing re-configurable pattern control to suit any venue or area further increasing speech intelligibility in difficult acoustic environments.



VISUAL



Smart pi EYE

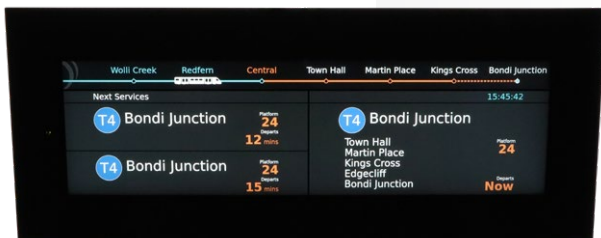
Smart pi EYE is the Digital Signage, Passenger Information and Static Messaging system.

Smart pi EYE includes the ability to manage all content for Digital Signage, Advertising and Way Finding from a single interface even for the largest of systems of many thousands of screens.

Smart pi EYE-HD hardware is installed at each screen and only requires USB power (from the screen) and a network connection with a 1080p HDMI output to the screen.

The Smart pi EYE-HD has no moving parts and is designed for use in industrial environments, the only configuration needed on the EYE-HD is its name all other parameters are managed in the Smart pi EYE Master web interface.

Smart pi EYE is a Visual Information System specifically designed for installation in all public areas.



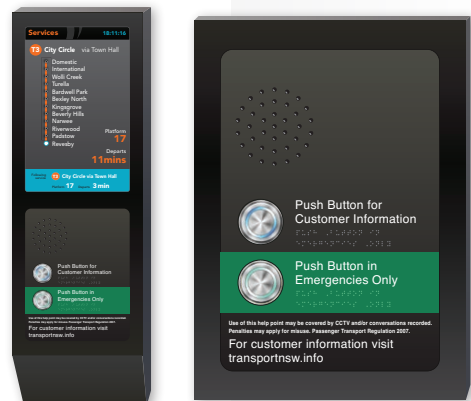
HELP & INFORMATION

Smart *pi* HLP

The Smart pi HLP (Help and Inform Information Points) the ability to contact a Network Operations Centre to talk with an operator or listen to automated information messages generated by the Smart pi DVA.

Help and Information points offer vital information so quality audio and performance reliability are a top priority.

The Help Point systems are completely configurable, buttons can be configured to play announcements in different languages and video integration with Smart pi EYE is also available. Custom chassis are available to completely fit in with the image of any organisation.



Smart *pi* PBX

The Smart pi PBX (Private Branch Exchange) is an Audio Over IP gateway.

The Smart pi PBX has additional features including high quality compressed OPUS audio algorithms for use on Wide Area Networks where it is not possible to use linear audio such as Dante.

The Smart pi PBX ties all low bandwidth products together and monitors their connection status, this includes, Help and Information Points, the Smart pi DVA (for integrated Realtime automated messaging) and the Smart pi NAM for Wide Area support or paging from a customer's phone system.

This flexible design allows systems of any complexity and design to be seamlessly integrated using industry stand SIP protocols and networks including the internet and VPN tunnels.

