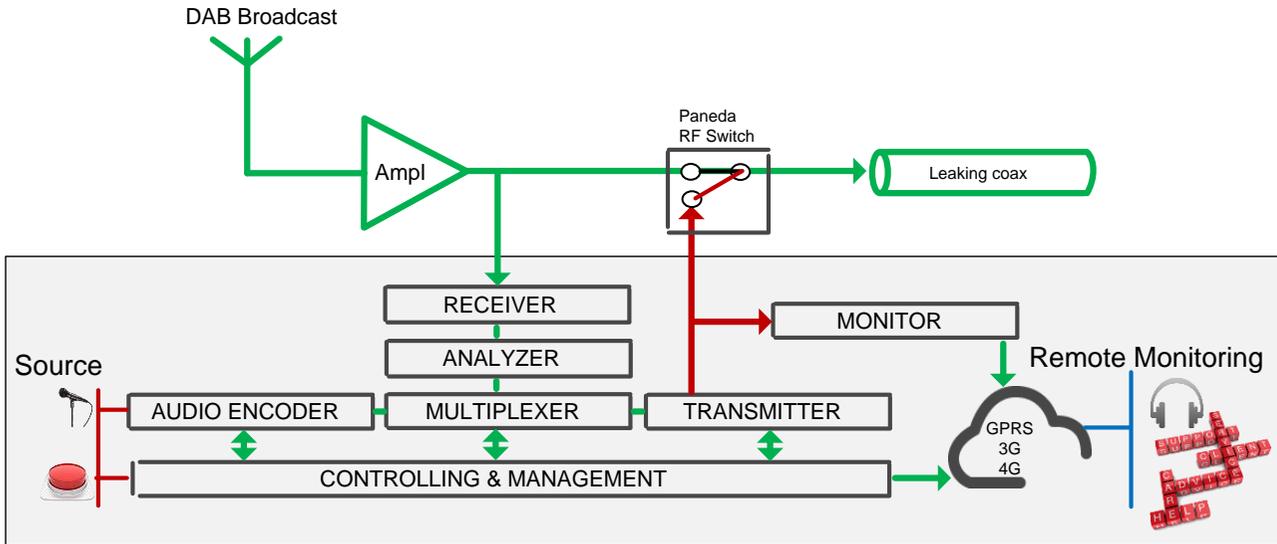
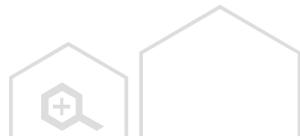


LOGICAL BLOCKS FOR DAB BREAK-IN



INNOVATIVE THINKING

A Paneda product comes with a range of benefits, superior state-of-the-art technical specifications and 24-7 support as well as great warranty conditions.

In the range of tunnel equipment the products are always offered as a turnkey solution, ensuring that the complete system works well together.



CONNECT AND FORGET is our lead star!

| | | | |
|---|------------------------------|--|---|
| RF INPUTS | | EXTERNAL SYNCHRONIZATION INPUT | |
| Input type | SMA, 50 Ohm | Reference frequency | 10Mhz, NTP or free running (Internal clk) |
| Level | -80dbm --15dbm | ENVIRONMENT AND MECHANICAL DATA | |
| Frequency Range | 175MHz ~240MHz, 1452-1492MHz | Temperature range | +5 to +50 °C |
| RF Outputs | | Housing | 19" cabinet, 1 height units |
| Output type | SMA, 50 Ohm | Depth | 250 mm |
| Level | 0dbm | Weight | 3kg |
| Band III | 174.928 ~239.200 MHz | POWER SUPPLY | |
| L-Band | 1452MHz~1492MHz | Mains voltage | 100-240 VAC, |
| Audio Input | | Frequency | 48-64 Hz |
| Connector | 3,5mm | Power consumption | 20W |
| IP | LiveWire support | STANDARDS | |
| Network | | DAB+ (ETS 102 563) | |
| Type | RJ45 x 2 with Gbps | DAB (ISO/IEC 13818-3) | |
| | | STI (ETS 300 797) | |
| Notes | | | |
| Divider & Combiner are required and offered on request. | | | |
| RF attenuators might be needed to match signal levels | | | |

By connecting your Paneda system to the 24/7 monitoring center you can relax, the Paneda technicians are monitoring and controlling your system, 7 days a week, 365 days per year. If a critical error occurred you will be notified according to your agreement. Most likely actions can be taken before affecting any services.

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DAB TECHNOLOGY

WWW.PANEDA.NO



Next Generation DAB emergency break-in systems

DATASHEET Rev 1.04

Accelerate your business potential with Paneda DAB Equipment & Services



PANEDA®

DAB TECHNOLOGY EXPERTS



DAB EMERGENCY BREAK IN SYSTEM



WHAT is a break-in system and why is it needed?

A break-in system is a solution for interrupting ongoing transmissions in road tunnels or any other public area where people need to be notified in case of emergency, like fire or accidents. These kind of systems are mainly developed and designed to be used in road tunnels, but is also suitable for use in train stations, parking garages, shopping center or other places where a break-in system can be used, not necessary for emergency but also for information.

For analogue radio, like FM, the principle for a break-in is to shut down the broadcasted signal in the tunnel and replace the transmitter with an emergency transmitter carrying the emergency messages. Since FM is analogue, this does not require any synchronization or other mechanisms to trigger an emergency message.



Unlike FM, DAB is far more complicated due to the fact that DAB radio uses a digital technology and cannot use the same principles as for FM since a car receiver will mute if it loses the original signal, even the shortest interruption will cause a switch over failure.

A complete system for security systems in tunnels

With many years of experience, Paneda has now released its latest generation of break-in system for tunnels.



OVERVIEW

The new system includes FM, DAB and VHF system, supporting seamless switchover and with a wide range of options. The Paneda system is developed by experts with many years of experience from DAB head-end system. A Paneda solution comes with zero limitations, from start, and is a compact solution built for many years of error free operation. Using the latest architecture ensures performance and reliability among as well as supporting easy to implement future upgrades.

UNLIKE other systems for tunnels, the Paneda DAB Break-in system PDBS, offers:

100% synchronized with the on-air signal, using a unique "Null symbol" detector it is a guarantee that the switching is fully compliant and works with all kind of DAB receivers.

Self-reporting system including alarm indications

The Paneda system automatically reports its status and condition to the Paneda 24-7 control center to ensure that all features are in operation and enabled.

24-7

The Paneda control and operation center operates 7 days a week, 365 days per year.

Remote management

The system can be fully monitored and controlled remotely from our operation center. The complete chain can be tested remotely without the need to be on-site.

Modular & Flexible

The PDBS is fully integrated and controlled by the Paneda management system, capable to also be integrated into other kind of controlling systems, including monitoring hardware status as temperature and power supply status. The system can be used in conjunction with any kind of system for emergency sources as phone-lines, microphones, AoIP, line.in, pre-recorded files or any other format.

Paneda is also experts in system integration and can assist in specification, implementation and documentations including connection drawings.

Compact

The PDBS system is compact and uses a minimum of rack space and depth. Power consumption from 30W each system.

Paneda offers a wide range of standard system components and customized solutions for signal encoding, RF analyzes, decoding and processing. Paneda uses state-of-the-art technology and principles, emanating from many years of experience in the DAB and broadcasting business. Today, Paneda has delivered a great number of tunnel systems in Norway



FEATURES

- Low maintenance and high reliability, using no moving parts as fans or hard drives.
- Real-time monitoring.
- Automatic error reporting.
- Remotely monitored by Paneda 24-7 NOC.
- Support for up to 64 audio channels, DAB or DAB+ or a mix.
- Compact low weight 1U design.
- Front panel with on scene status monitoring and fully integrated in the Paneda management system with full status control.
- Low lifetime cost.
- Multi ensemble support.
- Unique multi tunnel addressing from one system.
- SNMP.
- Linux.
- Complete range of products, from antenna to leaking cables.
- Management system for break-in messages, live or prerecorded files.
- Paneda offers turnkey solutions including installation, system integration and maintenance.