

# **DAB BI 2.0** Tunnel Break-in System

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## APPLICATIONS

- Retransmission and voice break-in of DAB signals in tunnels, for replacing audio programs with live or pre-recorded announcements, typically for emergency messages

## KEY BENEFITS

- Field Proven: used in tunnels in Hong Kong, Norway and Switzerland, Belgium
- Compact: 1 box (483x350x177mm) for up to 4 ensembles
- Simultaneous multi-ensemble management for up to 4 ensembles
- SFN capability, synchronisation with GPS antenna signal
- Follows automatically dynamic multiplex reconfigurations of DAB ensembles in the signal outside the tunnel
- Unlimited number of encoders
- Straight forward easy to use design with user friendly GUIs
- Remote control, maintenance and monitoring

## TECHNICAL SPECIFICATIONS

### INPUTS / OUTPUTS

For each RF PCI Board (1 RF PCI board can handle one DAB Ensemble):

- 1x RF Band III (174.928 MHz-239.200 MHz) input 50Ω BNC for the outside signal (-70 dBm sensitivity)
- 1x GPS aerial input on 50Ω TNC connector
- 2x RF Band III (174.928 MHz-239.200 MHz) output 50Ω BNC for the break in signal (-3 dBm output power)

With internal audio PCI board hardware option:

- 1 x digital and/or 1x analog audio input for live audio

With external audio panel hardware option (refer to audio panel data sheet)

- 4 x digital (balanced, 110Ω) or 4x analog (balanced, 600Ω) audio input on female XLR inputs for live audio

### CONTROL AND MONITORING

Remote control through a web server with user friendly GUI

SNMP Monitoring (MIB V2)

### ELECTRICAL

- AC Input: 110-240 V, 50/60 Hz
- Power consumption: < 100W

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## TECHNICAL SPECIFICATIONS

### FEATURES

Installed on 4RU Industrial PC with dual auto-range power supply, RAID hard disk redundant system and Windows OS

Fully compliant with all the Eureka 147 family of standards (EN 300 401, TS102 427, ETS 300 799 ...)

Software for demodulation, FIC analyzing and rebuilding, encoding and re-multiplexing, modulation

Maintains RF frame synchronization

Unlimited number of DAB/DAB+ encoders and decoders. All sampling and bit rates supported

Live audio inputs

Management of pre-recorded audio and data content

Break-in orders via SNMP or dry relay contacts on RS232 port

Break in time less than 1s

### MECHANICAL

Dimensions and weight:

- 4RU: 483 (19") x 450mm x177mm; 15 kg ; rackable

Temperature Range:

- Operating: 0°C to 50°C
- Storage: -20°C to 70°C

Humidity: 10% to 90% at 50°C

### RF PCI BOARD CAPABLE OF TREATING ONE DAB CHANNEL:

- Compares and synchronizes the on-air signal outside the tunnel and the regenerated signal
- RF output and input
- Passive bypass functionality
- Integrated GPS Receiver and GPS antenna input

## BLOCK DIAGRAM

