

## Audio Recording from DAB-DigitalRadio

**Khronos-WS-DAB** is a system receives and decodes the entire contents of up to four DAB+/DAB ensembles, rendering each audio for multi-channel recording or monitoring software.

Broadcast data services, including DLS text and MOT slideshows, are also available through a simple application programming interface.

**Khronos** supports both legacy DAB MP2 audio coding as well as the new HE-AAC v2 encoding used with DAB+ broadcasts. A recording level and mute control are provided for each service through the devices' mixer ports.

A sample monitor application is included which displays a control panel for each card and creates buttons for each audio service. When a button is clicked, it plays the audio through the default output device while displaying information obtained from the service and any DLS text and MOT images being broadcast.

The number of ensembles is factory-set as 1, 2, 3 or 4 but is field-expandable through a purchased expansion key. Multiple cards can be installed, allowing simultaneous monitoring or recording of more than four ensembles.

A sample application is provided with the card, allowing monitoring of DAB+/DAB audio and data as well as providing diagnostic ensemble spectrum displays, signal quality indicators and an uncorrected error counter. Each card panel displays the ensemble name and identifier, along with the phase reference correlator level and signal **spectrum**.

System status is constantly monitored locally or remotely. Alarms may be notified via email or user define external device, advanced auto-diagnostic tools guarantee continuous up time.



## SYSTEM SPECIFICATION

### Hardware

Intel core i5, RAM 8GB, 250 GB OS disk, Lan 1Gb

### Internal Storage

Expandable to 8GB in Raid 0, 1 or 5

### Operating System

Windows 10

### Supported Formats

.mp3, .wav, .wma, .aac, .mpeg

### Supported Languages

English, French, Spanish, Italian, Arabic

### Dimension

Rack Mount 3U ( 482mm X 380mm X 133 mm)

### Ordering Code

**KR-WS-DAB-1-x** : 1 ensemble DAB recorder

**KR-WS-DAB-2-x** : 2 ensemble DAB recorder

**KR-WS-DAB-4-x** : 4 ensemble DAB recorder

**KR-WS-DAB-6-x** : 6 ensemble DAB recorder

**KR-WS-DAB-8-x** : 8 ensemble DAB recorder

**KR-WS-DAB-12-x** : 12 ensemble DAB recorder

### Storage option -x

**-2** 2x 2 TB HardDisk Raid 1

**-4** 4x 2 TB HardDisk Raid 1

**-8** 4x 3 TB HardDisk Raid 5

**-0** none

## ○ KHRONOS-A

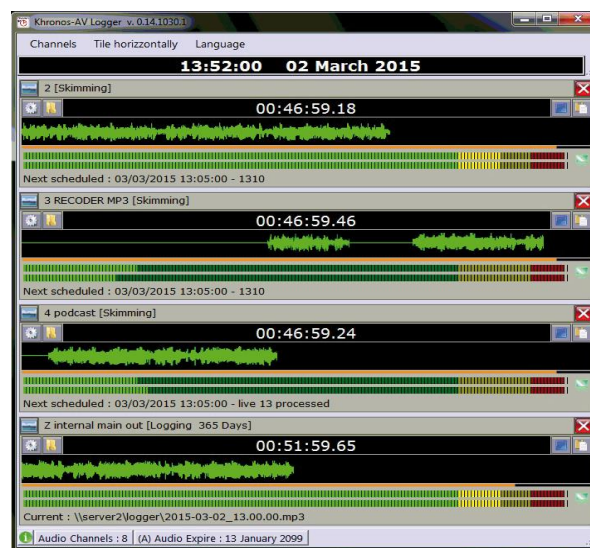
**Khronos-A** is an advanced audio logging software for all kind of recording. The acquired files are automatically indexed by date and time, a simple media player makes immediate access to content possible, even from a computer on the network. If disk space runs out **Khronos-A** will automatically delete the oldest files.

The multi-channel is acquired via audio input and based on real customer needs and storage capacity.

**Khronos-A** has a setup which allows complete customization of software use: you can choose the length of each file.

It's easy of use and his versatility make it an excellent tool for fulfilling the obligations established by law and other purposes.

Every audio input can be send to a Streamin Server like Shoutcast, Icecast, Window Media Server or in UDP stream or to a audio output device.



## ○ SOFTWARE FEATURES

- Multi-channel modular structure expandable up to 32 audio channels on the same server
- Storage records are configurable to specific customer needs
- Recording quality can be defined based on the available disk space, audio codec and bit rate
- Automatically deletes oldest files
- It supports Local Area Network (LAN) to view recordings from unlimited clients on the network or from remote computers
- It allows the recording of the same audio signal in different qualities and modes
- It can record the same source at low quality for logging, high quality for program replication and internet quality for podcasts
- Allows the programming time of the recordings or controlled via LAN or GPI
- Web server for listening to recordings remotely
- Ideal addition to a system for streaming
- Continuous system monitor and sending alerts and information via e-mail

## ○ RECEIVER SPECIFICATION

- Tuning Range: Band III (174-240 MHz)
- DAB Format: Mode 1
- RF Input: BNC connector
- PCIe Interface: Single lane PCIe 1.1
- Number of Ensembles: Factory-configured for 1, 2, 3 or 4
- Ensembles (field-expandable for an additional fee)
- Total Number of Services: 128
- Error Correction: Soft-decision Viterbi inner decoder, Reed-Solomon outer decoder
- Audio Decoding: MP2 and HE-AAC v2
- Audio Format: 48kHz 16-bit stereo (other application sampling rates and bit depths supported through the Windows SRC) (24kHz and 32kHz services are internally up-converted to 48kHz)
- Decoding Latency: 3 seconds