



**DAW30**

**Up to 8 channels watermarking encoder based on  
Kantar® Audio Watermarking technology**

**A Synapse® product**

*Synapse*

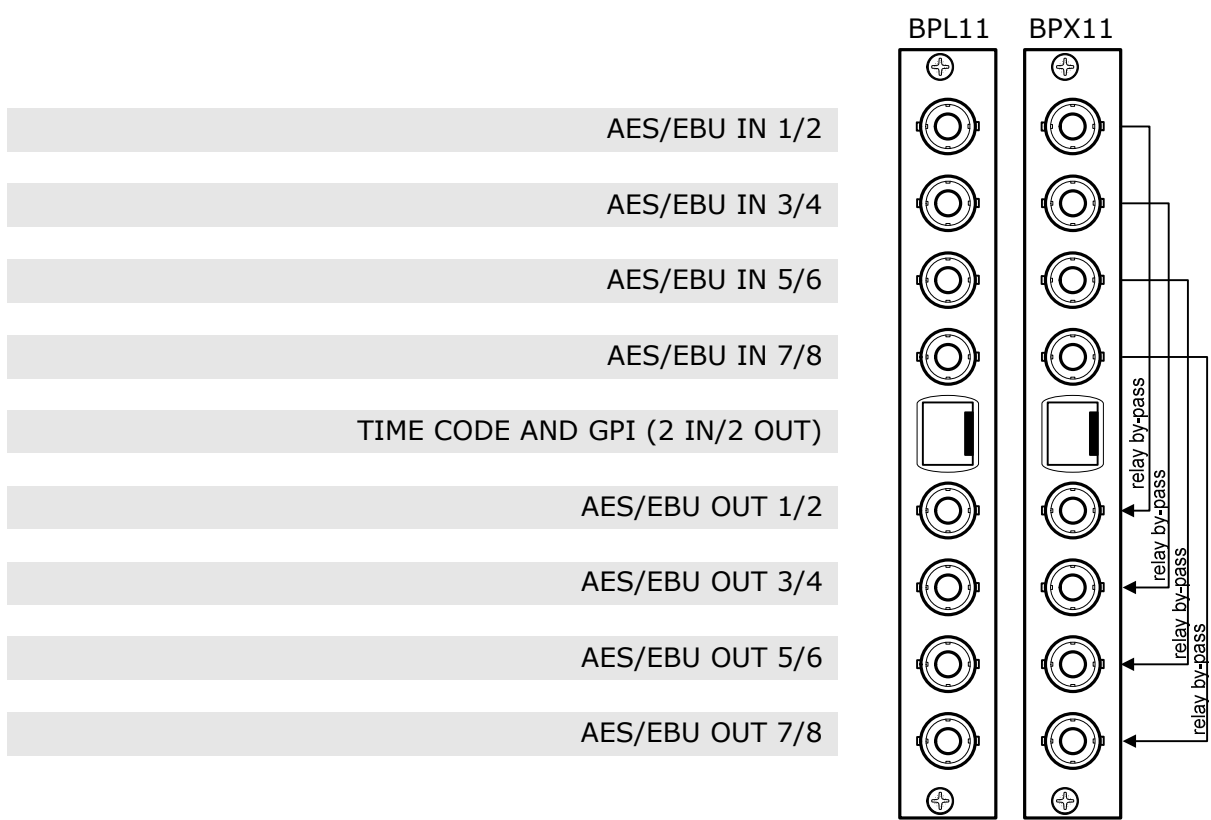
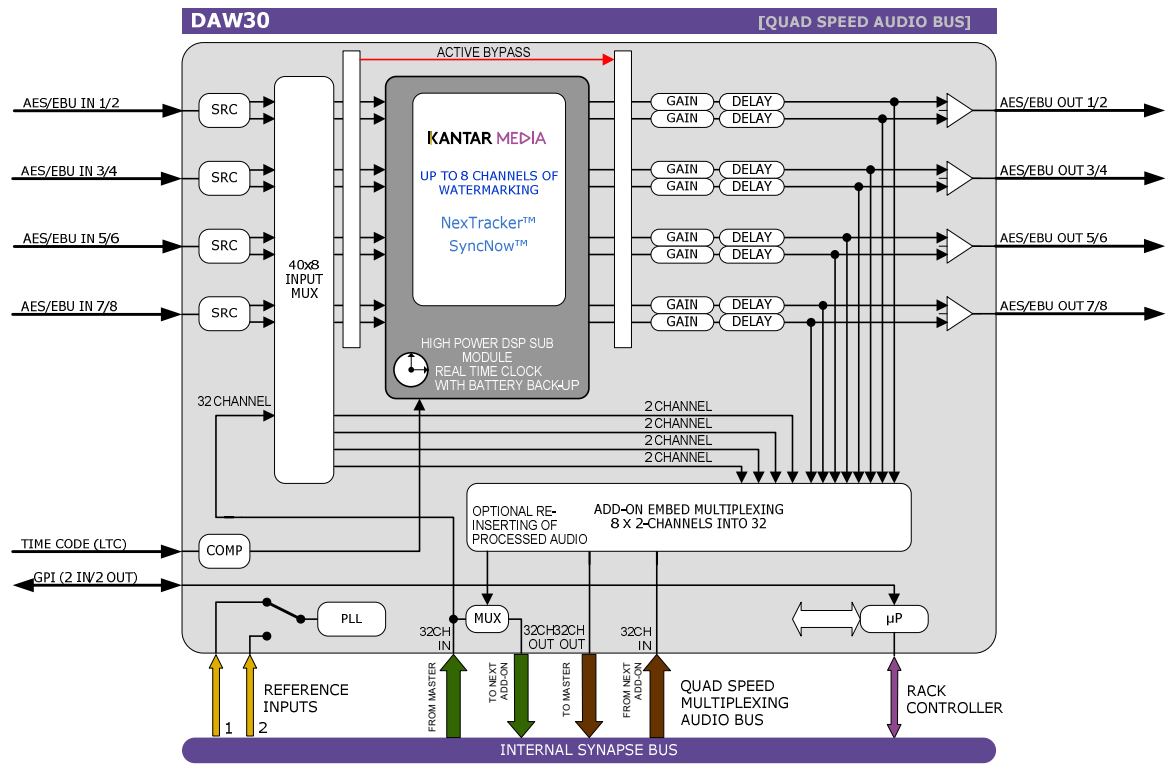
Quad speed  
**ADD-ON**

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**Block schematic & I/O panel**



### Features

The DAW30 are audio watermarking embedders for Audience measurement (NexTracker™) or Second Screen applications (SyncNow™) or both of the services. Developed in cooperation with Kantar this powerful card can encode/watermark up to 8 mono channels in the AES/EBU domain

The powerful quad speed audio bus makes this card ideal to process embedded domain audio by use of a quad speed enabled Master Card.

All cards are built for (up to) 8 channels of inaudible Kantar Media based watermarking including time codes and channel or content identifiers. The DAW30 allows both SyncNow™ as well as NexTracker™ watermark embedding in one card. For more information about SyncNow™ and NexTracker™ please refer to page 106 or go to [www.kantarmedia.com](http://www.kantarmedia.com).

#### **NexTracker™ watermarking**

Digital watermarking consists in embedding inaudible and imperceptible data, the payload, into a media asset or live signal to give it a persistent identity. This data can later be extracted and interpreted by devices to identify, manage or monetize the asset.

Kantar NexTracker™ solution for Audience Measurement makes use of a proprietary and patented Audio Watermarking technology to identify the signal aired by TV Channels and Radio Stations.

During playout or distribution, a Channel Identifier is embedded in real time and on the fly, enabling audience measurement companies to easily detect which channels the panelists are watching at home and calculate audience figures.

As a Time Code is embedded in the signal, it is also possible to identify and measure which content is watched in deferred time (from Personal Video Recorders).

#### **SyncNow™ watermarking**

Kantar's state-of-the-art Audio Watermarking technology allows broadcasters, content producers and advertisers to build truly immersive experiences in designing 2<sup>nd</sup> screen applications that will interact in real time with their content when played on the TV set.

SyncNow™ enables companion devices (like tablets, smartphones, or laptops) to automatically identify the TV channel or content/advert being watched on the TV set. The watermark detection SDK running in the app will pick up the TV sound from the device microphone input, and accurately time sync up with the content played on TV so that app user will be able to engage and interact in real time with it.

This method automatically accommodates different network latencies and supports time shifted viewing.

- SyncNow™ watermark encoding
- NexTracker™ viewing rates watermarking
- Up to 8 channels of inaudible Kantar based watermarking with embedded time stamp and channel identification
- Full audio swapping of all input channels allow for a selection of any AES/EBU input or any of the 32 channel bus input to be selected
- 4 stereo channels of audio gain
- 4 stereo channel audio delay up to 4000ms
- 16x 2 channel audio insertion into 32 channel Quad speed audio bus (allows for duplicates)
- Pre and post processed Quad speed bus reinsertion of audio all channels
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

Compatible Master Cards:

G/HDK100, G/HXT110, G/HEP100, G/HPD100, G/HED100 and all future Quad Speed Audio bus enabled Master Cards

### Applications

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- 8, 4 or dual channel audio watermarking in transmission environments for viewing rate measurements
  - Second Screen
  - Audience measurements

### Ordering information

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**Module:**

- **DAW30:** 8 channel AES/EBU SyncNow™ & viewing rate audio watermark engine with QS ADD-ON bus

**Standard I/O:**

- **BPL11\_DAW30:** I/O panel for DAW30 with unbalanced AES/EBU in and out

**Relay bypass I/O:**

- **BPX11\_DAW30:** I/O panel for DAW30 with unbalanced AES/EBU in/out and bypass relay

## Specifications

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### AES Audio Input

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<b>Number of physical inputs</b>	Up to 8 depending on mode
<b>Connector</b>	BNC 75 Ohm
<b>Standard</b>	AES-1992 for synchronous or asynchronous PCM/AES, SMPTE 276M for single ended synchronous or asynchronous PCM/AES
<b>Number of physical Inputs</b>	Up to 8 depending on mode
<b>Sampling Rate</b>	32 kHz to 192 kHz converted to 48kHz internally or Synchronous 48 kHz in SRC b transparent mode (Dolby E compatible)
<b>Resolution</b>	24 bits when AES or Quadspeed inputs selected, 20 bits in SD Master/ADD-ON mode
<b>Minimum Input/Output Delay</b>	120ms
<b>Impedance</b>	75 Ohms
<b>Level</b>	0.2V to 1V nom

### AES Audio Output

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<b>Number of physical Outputs</b>	Up to 8 depending on mode
<b>Connector</b>	BNC 75 Ohms
<b>Resolution</b>	24 bits
<b>Sampling Rate</b>	48KHz synchronous
<b>Minimum Input/Output delay</b>	120ms
<b>Maximum Input/Output offset delay</b>	4120ms

### Miscellaneous

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<b>Weight</b>	Approx. 250g
<b>Operating Temperature</b>	0 °C to +50 °C
<b>Dimensions</b>	137 x 296 x 20 mm (HxWxD)

### Electrical

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<b>Voltage</b>	+24V to +30V
<b>Power</b>	<14 Watts