

## Data Sheet

# VIAVI

## EASyCAP B4030

EAS Encoder/Decoder for Broadcasters

### Integrated, One-Box EAS Solution

The EASyCAP® Encoder/Decoder combines everything needed to deliver audio and video alerts in an integrated, one-box solution, including: EAS, CAP, local access messages, audio/video peripherals, control over serial and network based devices, interfaces for network management systems, and network protocols and interfaces.

The EASyCAP platform can receive all of the required alert messages and then control all of the devices necessary to deliver the messages to subscribers. It can also handle local access messages for franchise agreements.

### Flexible, Powerful, Open Architecture Platform

This next-gen solution not only handles all of today's EAS requirements, but provides a flexible and expandable platform designed to accommodate requirements and features that may be needed in the future.

As CAP standards and FEMA requirements continue to evolve, the innovative VIAVI open architecture simplifies the process of making changes and adding new capabilities and features. All software and firmware can be upgraded across the Network. The EASyCAP platform utilizes common interfaces such as secure web servers and SNMP, allowing standard tools to be used for management and monitoring.

### EAS Encoder/Decoder

Six input channels are provided to monitor for EAS messages. Inputs 1-4 are configurable as external audio or an internal radio receiver. Inputs five and six are configurable for internal radio receivers.

All EAS inputs are decoded simultaneously and overlapping alerts are stored until they can be processed to guarantee that all incoming alerts are received and processed.

Multiple user interfaces are provided to allow operators to encode EAS messages: front panel touchscreen LCD, telephone interface, general purpose inputs, and secure Web Server.

### Key Features

- One-box integrated solution for CAP and EAS
- Flexible and expandable open architecture
- Management via web browser, monitoring via SNMP and SYSLOG (optional based on model)



## **CAP**

This next-generation EAS platform is in compliance with all of the IPAWS CAP standards. EASyCAP allows multiple sources to be configured for receiving CAP alerts.

Available CAP sources include IPAWS Open Atom feed, ComLabs EMnet, AlertSense, Rave Mobile Safety, and Omnilert.

Additional interfaces can be added as they are defined and required by FEMA, the FCC, individual State plans, and individual operators.

## **Automatic Weekly Test Generator**

Required Weekly Tests can be configured to be automatically generated at random times each week.

## **Custom and Local Access Messaging**

Satisfying local franchise agreements, EASyCAP provides the ability for local authorities to send alert messages (audio and video) to subscribers, and the ability for operators to send administrative or informative messages to subscribers. Custom text and audio can be configured with the message and then played back immediately, or saved for playback at a later time.

## **Secure Web Server**

A Secure Web Server (HTTPS) is the primary user interface, providing an intuitive, easy to use interface for management and monitoring, configuration, testing, calibration, and log maintenance.

## **Touchscreen LCD**

A touchscreen LCD provides EAS input indicators, alert playback status, network interface setup, and some operations.

## **Audio**

Up to six internal radio receivers can be installed. Each radio receiver can be configured as AM, FM, or NOAA.

Four balanced audio inputs are provided for monitoring EAS. Each input can be configured to use an external audio source or an internal radio receiver. A balanced stereo audio switch is provided to internally replace program audio with alert audio.

Two balanced mono analog audio outputs are provided. These outputs can be connected to external audio distribution/switching equipment to replace program audio with alert audio.

Text-to-speech is included to generate alert audio for text-only CAP messages, or if problems occur retrieving the audio resource. Custom and local access messages can have a voice message automatically generated.

Streaming audio is available for protocols requiring an audio stream.

## **Video**

An internal NTSC character generator is provided to display the alert information. This provides a video source that can be used as a dedicated EAS channel or to replace the normal program video during alert messages.

## **General Purpose Inputs and Outputs**

Two general purpose inputs are provided to originate weekly tests, abort messages in progress, trigger alerts, and hold-off alerts.

Four general purpose outputs are provided to activate external distribution and routing equipment.

One TTL output is provided to activate distribution and routing equipment.

Network based general purpose output devices are supported to remotely activate outputs. The locations serviced by each output device can be configured so they're only activated when necessary.

## **Multiple Ethernet ports**

EASyCAP features multiple Ethernet ports to allow connectivity to different networks. Two 10/100/1000 BaseT Ethernet ports are included, and two 10/100 BaseT Ethernet ports can be added on an optional expansion card.

One Ethernet port can be configured to face the internet for receiving CAP messages, a second port can be connected to the internal management network, and a third port can be connected to the video network.

## **Telephone Interface (Optional)**

An optional telephone interface can provide remote access to the EASyCAP across a standard telephone line. This interface can be used to originate EAS and local access messages.

## **MPEG Stream (Optional)**

EASyCAP can stream MPEG-2 from any of the built-in Ethernet ports. The MPEG audio and video is encapsulated in an MPEG-2 transport stream and can be delivered to a unicast or multicast address. The MPEG stream can be used to create an "EAS Details" channel, eliminating the need for an external MPEG encoder. The MPEG stream is only present during the playback of EAS messages.

## **Network Management Systems**

SNMP and syslog is supported for network management systems to monitor the status and health of the hardware and software, monitor incoming and outgoing alert messages, and provide a limited amount of control to abort and originate messages.

## **Email**

Status information, system errors, alert activity, delivery errors, and weekly logs can be emailed to a list of configured recipients.

## Network-Based Alert Protocols (Optional)

EASyCAP provides support for virtually any network-based peripheral that accepts alert messages. Ask your sales professional for a complete list of supported protocols and equipment.

Location routing is used for all of the configured devices. Each configured device includes a list of locations so that equipment is only activated when necessary.

- CAP HTTP Delivery
- DCM Splicer
- DNCS/Evertz  
Supported by Cisco (SA) DNCS, Evertz Logo Inserters, Myrio middleware, and more
- Minerva Middleware  
Supported by Minerva ITvManager middleware, Nagravision, and more
- SCTE-18  
Supported by MPEG Splicers, multiplexers, edge decoders, set-top boxes, and more

## Serial Protocols

Two RS-232 serial ports are included with all units. Additional RS-232 ports can be added on an optional expansion communications board. A variety of serial protocols are supported to control external character generators, sign boards, logging systems, and other equipment.

## Available Configurations

Model	Part Number	1 3-Radio Card	2 3-Radio Cards	COM Expansion	AES/EBU Audio	Secondary Audio Switch	HD-SDI Output
EASyCAP B4030	2010016101	S	O	O	O	O	O

S = standard feature    O = optional feature

## Specifications

Chassis	2U RU chassis with 3.5" 320x240 color touchscreen LCD and Speaker
Communications	(2) RS-232 serial ports available on male DB-9 connectors (4) USB ports (2) 10/100/1000 BaseT Ethernet ports available on USB/RJ45 combo jacks
Audio	(4) balanced 600 ohm audio inputs for EAS monitoring Each input configurable as external audio or an optional internal radio receiver (2) balanced analog audio outputs, 600 ohm (1) balanced stereo analog audio switch, 600 ohm
Video	NTSC video character generator (source only, does not overlay onto video)
General Purpose Inputs and Outputs	(4) general purpose outputs: isolated relay, maximum rating of 1A @ 30 VDC (1) TTL output (can drive 2 TTL loads) (2) general purpose inputs
Radio Receiver Boards	(2) radio receiver boards can be installed into the EASyCAP (3) radio receivers are included per board, each configurable as AM, FM, or NOAA
AES-EBU Digital Audio Expansion Board (optional)	(2) AES-EBU digital audio switches on 110 ohm XLR jacks Alert audio automatically locks to the incoming bit rate and sample rate (up to 192Khz)
Balanced Audio Expansion Board (optional)	Adds a second balanced stereo analog audio switch, 600 ohm
Communications Expansion Board (optional)	One expansion port for adding communications boards DUAL-LAN-TELEPHONE Communications Expansion (2) 10/100 BaseT Ethernet ports, (1) Telephone MODEM
Certifications	FCC Part 11 EAS Encoder/Decoder (FCC ID: P4V-EASYCAP-1) FCC Part 15
HD-SDI output	Part Number 2072152801