

# PT0800M

## WAVEFORM MONITOR, AUDIO & LOUDNESS

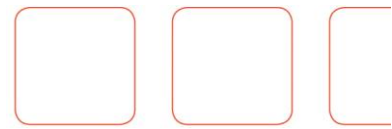


The PT0800 introduces a unique combination of Audio, Loudness and Waveform monitoring at the highest precision, allowing it to blend into virtually any metering application.

With its modular hardware approach and highly customizable user interface, the PT0800 comes is one of the most versatile Waveform Monitors / Audio and Loudness Meters on the market today.

## Features & Benefits

- High Bright TFT 6.8"
- 8 User Preset Keys, customizable
- 8 User Soft keys, complete customization
- Modular I/O: SDI, AES, Dolby E etc.
- Up to 64 Audio Inputs/16 outputs
- Full Audio Metering inc. stereo, 5.1 surround sound & multiple channels
- Loudness Logging, compliant with all major broadcast standards
- User definable Gamut error settings
- G, R, B, Y, Cb, Cr & Luminance display
- A/B Overlay & A/B Parade display
- Up to 2 or 4 Auto sensing SDI inputs
- Up to 4 Waveforms on single screen
- 2 or 4 Channel Waveform Monitor
- Num. display of user selectable timebase
- Universal 1/2 rack, 3RU or Desktop
- Picture preview
- Up to 4 SDI video inputs , 1 SDI output



# Video Waveform Monitoring

The traditional video waveform display is used to show various aspects of the video components. Available video components are R, G, B, Y, Cb and Cr. The horizontal time base on the waveform display is selectable between line, field and frame and the vertical scale shows the signal level in percentage, voltage or hex values. Horizontal as well as vertical zooming is possible.



The parade display is a typical display mode in a monitoring situation. The video components are displayed side by side and amplitude errors are easily detected. In one view, many parameters of the video signal can be monitored to check and optimize the picture quality, e.g. gamut margin, dynamic range, exposure, black level, etc. In parade mode the levels of the different video components can easily be compared - e.g. for checking the white balance. There are three different parade modes which are Y, Cb, Cr, RGB and RGBY. Video overlay is also possible from selected elements on each channel to provide a combined image.

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## Dolby E Decoding



Dolby E encodes up to 8 channels of audio plus consumer and professional metadata information and carries it within a digital audio pair in a SDI stream or on a single AES3 audio channel. The PT0800M de-embeds the Dolby encoded signal, decodes that signal back to its constituent parts and then presents full audio metering of the signal and provides an output.

The PT0800M can deliver an audio down mix of the de-embedded and decoded signals derived using the coefficients set in the Dolby metadata. This can provide a health check as well as quality checking. Dolby metadata can also be shown onscreen



# Modular Hardware

The modular hardware structure of the PT0800 allows you to completely define the specific inputs and outputs formats, be it Analogue, AES, HD/SD SDI or Dolby E decoding.

Additionally, the PT0800 features both ethernet and USB control and Loudness Logging interfaces alongside the DVI screen out, enabling external screen hookup.





# Hardware Option & Accessories

## **PT0760M-ANAREF**

External Analogue Black Burst/TriLevel reference with loop-through

## **PT0760M-SDI-2I**

2 Channel HD/SD Input Module

## **PT0760M-SDI-2-4IU**

Upgrade from 2-4 Channel HD/SD Video Input Module

## **PT0760M-O/P-8A**

8 Channel Analogue Audio Output Module

## **PT0760M-O/P-8D**

4 Channel Digital Audio Output Module (AES3)

## **PT0760M-I/P-8A**

8 Channel Analogue Audio Input Module

## **PT0760M-I/P-8D**

4 Channel Digital Audio Input Module (AES3)

## **PT0760M-DOLBYE**

Dolby E/D (AC3) Decoder Module

## **PT0760M-DELAY1**

Audio delay of each Audio Channel up to a maximum of 16 Channels for monitoring applications only.

## **PT0760M-DT/STAND**

Desktop Stand for PT0760M

## **PT0760M-RM/KIT**

19" 3RU Rack cabinet to house 2xPT0760M

## **PT0760M-RM/BLANK**

Blank Panel for PT0760M-RM/KIT



## PT0800 Technical Specification

### PT0760M-SDI-1I & 2I

SDI input specifications	
SMPTE-Formats	259M, 292M
Connector	BNC, 75Ω (Internally Terminated)
Return Loss	>15dB (5MHz – 1.5GHz)
Input Level	800mVp-p, ±10% (0m Cable)
Equalization Range	259M: 0-280m (Belden 8281 cable type): 292M: 0-100m

### PT0760M-SDI-1O

SDI output specifications	
SMPTE-Formats	259M, 292M
Connector	BNC, 75Ω (Internally Terminated)
Return Loss	>15dB (5MHz – 1.5GHz)
Output Level	800mVp-p, ±10%

### PT0760M-ANAREF

External Analogue Video reference	
Connector	BNC, 75Ω (Not internally terminated)
Return Loss	>35dB (5MHz to 30MHz)
Input Level	1Vp-p typical, 2Vp-p (Maximum)
Supports video standards	SDTV: SMPTE 125M SMPTE 267M ITU-R BT .601 (480I, 576I) HDTV: SMPTE 296M(720P) SMPTE 274M(1080I/P) SMPTE RP 211 (1080PsF)

### PT0760M-O/P-8A

8 Channel Analogue Audio Output Module	
Connector	25 pin Female D-Sub
Sample Rate with internal Sync	48kHz
Max. Output Level at 600Ω	+18dB (VCC=12V) +24dB (VCC >20V)
Bit Resolution	24 bit
Frequency Range	30Hz to 20kHz ±0.3dB
Sample rate range with external sync	32 kHz to 50 kHz
Group delay	<0.21 msec
Dynamic range A-weighted	>101 dB
Crosstalk at 1 kHz	< -96 dB
Signal-to-noise ratio	93 dB (typical)
Nominal output impedance	< 5 ohm



### **PT0760M-O/P-8D**

4 Channel Digital Output Module (AES3)

#### Connectors

15 pin Female D-Sub (AES3-2003) (AES3-2003)

Sample rate with internal Sync

48kHz

Output Level (BNC)

75Ω: 1V

Output Level (D-Sub)

110Ω: 5V (balanced)

Bit Resolution

24 bit

### **PT0760M-I/P-8A**

8 Channel Analogue Audio Input Module (balanced)

Connector

25 pin Female D-Sub

Sample Rate with internal Sync

48kHz

Max. input Level

+24dB

Bit Resolution

24 bit

Frequency Range

30Hz to 20kHz ±0.3dB

Nominal input impedance

> 20kΩ

Group delay

<0.82 msec

Dynamic range, A-weighted

>103 dB

Crosstalk at 1 kHz

< -96 dB

Signal-to-noise ratio

93 dB (typical)

### **PT0760M-I/P-8D**

4 Channel Digital Input Module (AES3)

#### Connectors

15 pin Female D-Sub (AES3-2003) & 4 BNC (AES3-id-2001)

Sample rate internal

48kHz

Sample rate for input module

8kHz – 108kHz

Input Level

>500mV

Bit Resolution

24 bit

Input impedance

110Ω

Group delay

1.75 msec (Max.)

THD & Noise

-103 dB @ 1 kHz (typical)

Dynamic range

>120 dB

General Connectivity

External Display

DVI-I (DVI or VGA) 640x480p60, 1280x720p60, 24 bit colour

Monitor, Control & Update

RS232 / USB (-A) / (RJ45)

Power Supply

Power input Connector

XLR4-male

Input Voltage

12-36VDC

Power Usage

15-40W

Physical Characteristics

Height: 133.4 mm

Width: 215.2 mm

Depth: 145 mm Max.



Weight	2.5kg (typical)
Environmental Conditions	
Storage temperature	-20° to +70°C
Operating ambient temperature	Operating ambient temperature
Humidity	Non-condensing (IEC 721)

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