

# Yellow Signal Box - Specifications



## Video Output

- 14 test patterns, including Pluge, Bars, Pathological and Full Colour Rasters.
- 2 lines of text and a moving cursor can be overlayed onto video output.
- 10 Labels storing User-Configurable Text Strings for quick recall. Function Keys can be used for quick character selection.
- 14 Speed Settings for Test-Pattern-Moving-Cursor.
- Fully conforms to SMPTE Standards.
- 28 Video Output Formats (CVBS, SDI-SDI, HD-SDI, 3G-SDI)
- 3G-SDI - Level A & Level B, 1080/60P, 1080/59.94P, 1080/50P (Y'Cb' Cr' 10 bit, 4:2:2 Signals Only)
- HD-SDI - 1080/60i, 1080/59.94i, 1080/50i  
1080/30P, 1080/29.97P, 1080/25P, 1080/24P, 1080/23.98P  
1080/30PsF, 1080/29.97PsF, 1080/F25PsF, 1080/24PsF, 1080/23.98PsF  
720/60P, 720/59.94P, 720/50P, 720/30P, 720/29.97P, 720/25P, 720/24P, 720/23.98P
- SD-SDI - 625i, 525i (16:9 Anamorphic)
- CVBS - PAL(B, D, G, H, I), NTSC

## Genlock Testing

- The unit is capable of outputting either a Black & Burst or Tri-Level Sync Signal to enable fast equipment confidence testing.
- For Black & Burst detection a signal can be inputted into the unit to confirm signal presence.

## Video Input

- SDI Video Input for quick identification of signals and signal type.
- 3G-SDI - Level A & Level B, 1080/60P, 1080/59.94P, 1080/50P (Y'Cb' Cr' 10 bit, 4:2:2 Signals Only)
- HD-SDI - 1080/60i, 1080/59.94i, 1080/50i, 1080/30P, 1080/29.97P, 1080/25P, 1080/24P, 1080/23.98P  
1080/30PsF, 1080/29.97PsF, 1080/F25PsF, 1080/24PsF, 1080/23.98PsF  
720/60P, 720/59.94P, 720/50P, 720/30P, 720/29.97P, 720/25P, 720/24P, 720/23.98P
- SD-SDI - 625i, 525i (16:9 Anamorphic assumed)
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## SDI Data

- CRC Count - Y'or' C Data Errors, per Line, will start to count if there is a data bit error. The count value can be reset to start a new count-session.
- Video Payload Identifiers - Four Vpids are available for Monitoring;
  - VPid1 - SMPTE Standard.
  - VPid2 - Transport & Picture Scanning Method e.g. 'i' or 'P', Frame Rate = Picture Rate (not Field Rate!).
  - VPid3 - Aspect Ratio, Colour Samplig Structure.
  - VPid4 - Channel Number, Bits per Sample.

Vpids are optional on SD & HD-SDI streams but are necessary for 3G-SDI due to the large number of 3G-SDI formats with identical Frame Rates and Colour Sampling Structures. Vpids can be incorrectly inserted, meaning any equipment relying on Vpids may fail to work if the Vpids are incorrect. As another fault-finding aid, the Hex Label will indicate red if an invalid Vpid type is found (usually a Field Rate has been incorrectly inserted instead of a Frame Rate) or green if the VPid is a valid type.

- Audio Payload Identifiers - Five APids are available for Monitoring;
  - APid1 - Use of Channel Status e.g. Professional or Consumer.
  - APid2 - Linear PCM Status.
  - APid3 - Mode e.g. Stereo, Mono, Dual-Mono etc..
  - APid4 - Sampling Frequency.
  - APid5 - Bits per Sample.



# Yellow Signal Box - Specifications

## Audio Out

- 16 Channels of embedded Audio (*SDI Output Only*).
- Each of the 8 pairs can be independently enabled/disabled.
- Each pair can be changed to either a Sine, Triangular or Square wave.
- Of each pair; either both channels, one channel or neither of the channels can be broken every 2 seconds.
- Tones available - Glits, Blits or any desired, discrete frequency, from 20Hz to 20,000Hz can be chosen in 1Hz Step Resolution.
- Adjustable Tone Levels.

## Audio In

- Channels 1 to 16 of embedded audio is de-embedded and displayed on a bar graph, with a dBFS Scale.
- Audio Graph;
  - A Coloured Graph will display if Audio is present.
  - Blank Graph if the Audio is Muted.
  - 'OFF' will indicate if no Audio is Present on the Stream.
- The dBFS Scale can be zoomed in and out.
- All Embedded Channels can be Headphone or Speaker (*see below*).

## Speaker & Headphone Socket

- Includes an internal rear mounted 29mm Dia., 8 Ohm, ABS Speaker with Mylar Cone,
- Speaker Frequency Response 0Hz-3KHz. 250mW RMS
- Speaker Output – Mono Single Channels can be routed to Speaker.
- 3.5mm, 4 Contact Headphone Socket with Nickel Plated Contacts.
- Autosensing headphone socket input that cuts Speaker output (*can be overridden in the menus*).
- Headphone Output – Any one of the 4 Stereo Pairs can be routed to the Headphone Socket.

## Keypad

- Autoflex EBA180 Polyester. 3M 467 Circuit adhesive and IP5 Membrane.
- 9 Button Keypad, with 9mm Stainless Steel Domes.
- 4 User-Configurable Function Keys, Del Key, Up, Down, Left, Right, Select

## Screen

- 1.69 inch OLED Screen.
- Total Screen Resolution (pixels) 160x128.
- Active Video Input Resolution (pixels) 127x77.

## Function Keys

- 4 Function Keys can be user-configured for the most commonly used controls.
- e.g. Embedded Audio Mute, In/Out Device Toggle, Screen Off, Clean/Dirty Out, Speaker Mute, Volume Up, Volume Down ..... Plus many more!

## Power

- 2xAA battery power.
- External DC Socket, 5V to 16V (*polarity protected 2.1mm +ve centre Pin*).
- A Screw Terminal Plug is provided to increase the 5-16V Input Options.
- On-display meter and in-menu Voltage Level Readings.
- Auto-switching between Battery and External DC to save battery power.

## Physical

- Weight - 155g (*not including batteries*).
- ABS Moulded plastic enclosure with soft side grip.
- Dimensions 25mm Deep x 118mm long (*not including connectors*) x 79mm wide (*at widest point*).
- 2 x 75 Ohm BNC Connectors.

