

Blue Signal Box - Specifications



Video Output

- 14 test patterns including Plugs, Bars, Pathological and Full Colour Rasters.
- 2 lines of text and a moving cursor can be overlaid 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
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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.



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Audio Out

- Channels 1-16 Embedded Audio Capable (*SDI Output Only*). The Signal Box can only output 8 channels at a time. Groups 1&2 may be active or Groups 3&4 may be active but not both.
- 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 - 300Hz, 1KHz, 2.5KHz, 4KHz.

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.

Screen

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

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.

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.

