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Penpal-SDi generates 26 x (10 bit) video test patterns, each of which is encoded to Rec.ITU-R BT.601 and transmitted serially according to Rec.ITU-R BT.656. The AES digital audio signals are embedded according to SMPTE272. This level of integration & performance has been achieved utilising video processing & compression techniques optimised for reduced power consumption. The 10 bit all digital processing and the high stability crystal eliminates all noise and distortion. Weighing in at under 170 grams, you can take it anywhere, whether you are working in the studio, edit suite, systems integration, OB's, location, video-walls, or AV presentations, you can generate serial digital video & audio test signals with confidence whenever & wherever you need to.

Video Patterns

Bars 100% bars, 75% bars, SMPTE bars, 100% bars & red
Coding SDI checkfield matrix, ARC/APM WSS 4:3, ARC/APM/WSS 16:9
Ramps 5 step staircase, valid 5 step modulated staircase, Limit Ramp, Shallow Ramp
Pulse & Burst 2T+ modulated pulse & bar, full field line 17 ITS, 60% sweep with markers, multiburst.
Set Up pluge on black, convergence, EV tartan bars
Fields 1 white, black, 1 field in 8 white bar, red field
Fields 2 green, blue, magenta, cyan
Switchable 525 625 line standards

When penpal-sdi is powered up it will display the last pattern previously used

Audio Tones

- 1 Off (low power consumption)
 - 2 1 kHz tone on stereo pair 1 only
 - 3 Continuous 1 kHz tone on stereo pair 1, continuous 444 Hz tone on stereo pair 2. Broken 1kHz tone on stereo pair 3 & broken 444Hz tone on stereo pair 4
 - 4 1kHz tone on all 4 stereo pairs: left channels continuous & right channels broken.
- All audio tones are embedded and work independently, regardless of video pattern displayed.

Battery Life

Over 3 hours continuous. To conserve battery life, penpal-SDi will automatically shut down after 15 minutes of non-use.
Optional Rechargeable Battery kit available.

Specifications

Video

Encoding Rec.ITU-R BT.601
Bit Depth 10 bits
Transport Bit serial according to Rec.ITU-R BT.656
Interface SMPTE 259M
Bit Rate 270Mbits/s
Output Impedence 75 Ohm (nominal)
Video Connector BNC female
Return Loss Better than 15dB
Amplitude 800mV +/- 10%

Audio

Encoding AES 3
Precision 20 Bits
Sampling Freq 48 kHz locked to video
Transport Audio embedded into video according to SMPTE 272
Tones 1kHz (nominal)
444Hz (nominal)
Locked to sampling frequency
Level -20dBFS (full signal)
Channels 4 stereo pairs (8 channels)

Dimensions

Length 152mm
Diameter 22mm
Weight 158g (without battery)

Power Requirements

3v lithium ion battery type DL/CR123
Optional 3v AC power adapter
Optional re-chargeable battery kit