Vistek HD VALID8

Video Audio Line-up & IDentification

Resolve SD and HD audio/video sync problems.

VALID8 is an enhanced version of Snell's award winning VALID (Video Audio Lip-sync & Identification) system. The current VALID system comprises of a V1681 Generator module and a V1682 Reader module with optional sub-modules for analog or AES audio inputs and outputs. In terms of the video test signal these are SD-SDI devices only that support just 4 analog (or 2 AES) audio channels. Video ID text can only be changed by means of individual character selection via the front panel of the Generator.

The new VALID8 system now supports both HD-SDI & SD-SDI formats including 1080i 50/59.94Hz, 720p 50/59.94Hz, 625 line 50Hz and 525 line 59.94Hz. Like VALID the output format/standard automatically switches to the same as that of the Program input. The default format is user selectable when the Generator is in 'stand-alone' or 'free-run' mode. A further option exists to lock the test signal output to an external Bi-level or Tri-level analog reference signal.

Additional connectivity is provided for synchronization of multiple Generators such that the in-screen video references ('Black Flashes') can be co-timed. Two BNC connectors on the rear panel of the Generator marked SYNC. and SYNC. LOOP provide an easy interconnect mechanism using TTL signal levels.

The number of audio channels (inputs and outputs) has been increased from 4 to 8 (4 Stereo). Complete separate audio modules (optional) for both the Generator and the Reader provide co-timed external analog audio and AES inputs and outputs. Unlike VALID there is no need to change sub-modules.

On the input side of the Generator the user can select from analog pairs or AES inputs for each of the 4 external program channel pairs. Both the Generator and the Reader will provide AES and analog audio outputs of the 4 selected input channel pairs or, of course, the audio test tones. With regard to embedded audio VALID8 works like VALID, except that the audio test tones occupy 2 groups (selectable) rather than just a single group. In program input mode, when embedded audio is selected rather that external audio, all 4 Groups (16 Channels) are passed including all other ancillary data.

VALID provides up to 4 lines of identification text to be superimposed on the Video test signal(s). These can only be changed by means of individual character selection via the front panel of the module. No Audio identification facility exists. This is still the case for the VALID8 Generator when only purchasing the V6811 video module (+ embedded audio). When the V6812 audio module is also purchased identification data, both video and audio, can be loaded from Compact Flash via the V6812 front panel. A simple proprietary software program allows compilation of the Flash memory on a PC with a PCMCIA port.

Note: At the time of compilation of this document, the data entry via compact flash is designated as a future software (PROM exchange) upgrade.
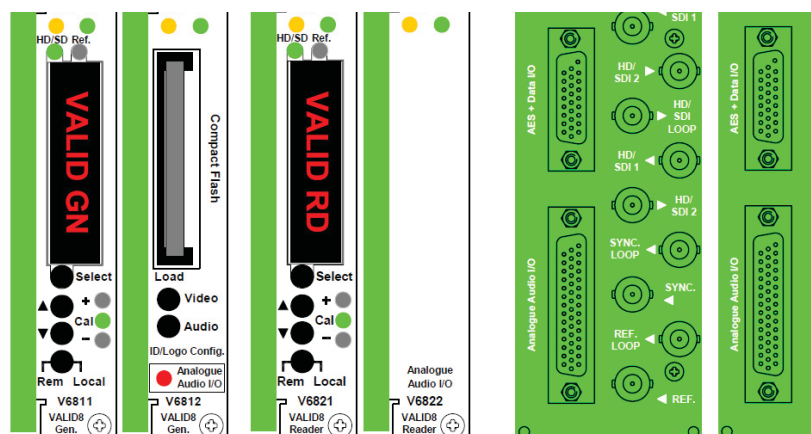
Front and Rear Panel Views

Order codes

Generator

V6811
HD-SDI/SD-SDI VALID8 Test Signal Generator with embedded audio only.

V6812
VALID8 Generator Audio I/O & Compact Flash Reader.

V161HR3H
3RU Rear Module (Dual Width for V6811+V6812).

Reader

V6821
HD-SDI/SD-SDI VALID8 Reader with embedded audio only.

V6822
VALID8 Reader Audio I/O.

V16HR3H
Rear Module (Dual Width for V6821+V6822).

Technical Specification

V6811 / V6821

Serial Digital Inputs	2 (Switchable)
Standards	SMPTE 259M (SD), SMPTE 292 (HD)
Line / field rates	1080i/50Hz, 1080i/59.94Hz 720p/50Hz, 720p/59.94Hz 576i/50Hz, 480i/59.94Hz
Detection	Automatic
Connectors	BNC
Impedance	75 Ohms
Return loss	> 15dB, 5MHz – 1.5 GHz
Cable Equalization SD-SDI, ASI	Automatic 0-200m @ 270Mb/s (Belden 8281)
Cable Equalization HD-SDI	Automatic 0-100m @ 1.485Gb/s (Belden 1694)
Serial Digital Outputs	2 Processed + 1 Active Looped from Input
Standards	As Inputs
Line / field rates	As Inputs
Connectors	BNC
Impedance	75 Ohms
Return loss	> 15dB, 5MHz – 1.5 GHz
Cable drive SD-SDI, ASI	200m @ 270Mb/s (Belden 8281)
Cable drive HD-SDI	100m @ 1.485Gb/s (Belden 1694)
Sync Input (V6811 only)	1 + Sync Loop
Type	TTL
Connectors	BNC
Impedance	Hi Z, >10KOhms
Reference Input	1 + Loop
Type	Analog SD Bi-Level or HD Tri Level (Automatic)
Level	1 Vp/p
Connectors	BNC
Impedance	Hi Z, requires 75 Ohm termination
Return loss	> 35dB to 5MHz

V6812 / V6822

AES Inputs	4
Sampling	48KHz
Format	AES-3
Processing	24 Bit
Connector	HD D Type (26 Way)
Impedance	110 Ohm balanced
Cable equalization	Up to 250m
AES Outputs	4
Sampling	48KHz
Format	AES-3
Processing	24 Bit
Connector	HD D Type (26 Way)
Impedance	110 Ohm balanced
Cable drive	Up to 250m
Analog Audio Inputs	8 (4 stereo)
S/THD + N	<-85dB
Dynamic range	>100dB
Maximum input level	+14dBu to +24dBu in 1dBu steps
Connector	HD D Type (47 Way)
Impedance	>20KOhms
Analog Audio Outputs	8 (4 stereo)
S/THD + N	<-85dB
Dynamic range	>100dB
Maximum output level	+14dBu to +24dBu in 1dBu steps
Connector	HD D Type (47 Way)
Impedance	50 Ohms