7725VBI-K-HD
HD/SD VBI Sidechain Bridge

The 7725VBI-K-HD module is a multi-function VBI keyer. Every program input vertical interval video line can be programmed to pass upstream video, blank the line, insert any VBI line from the HD/SD Fill input, insert a selectable VITS (vertical interval test signal) for SD, and insert user-selected data such as Wide Screen Signaling (WSS) and Active Format Description (AFD). The 7725VBI-K-HD allows for up to 70 lines to be programmed. The module provides the capability to store different VBI configurations as presets and recall them from the On-Screen Display (via Program Monitor Out), VistaLINK®, or via 8 opto-isolated GPI inputs.
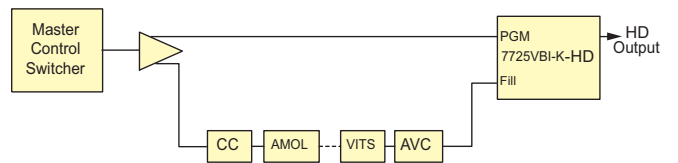
The 7725VBI-K-HD has two re-clocked program outputs and one program monitor output. The module is often used in critical on-air applications and hence bypass relay protection of the program video path is provided. The 7725VBI-K-HD is setup via the On-Screen Display or VistaLINK®.

VistaLINK® enables remote monitoring, control and configuration capabilities via Simple Network Management Protocol (SNMP). This offers the flexibility to manage operations including signal monitoring and module configuration from SNMP enabled control systems (Manager or NMS) locally or remotely.

The 7725VBI-K-HD occupies one card slot and can be housed in a 1RU frame that will hold up to four modules, a 3RU frame that will hold up to 15 modules, a 350FR portable frame, which will hold up to seven modules, or a standalone enclosure that will hold one module.

▶Features & Benefits

- One serial digital 1.5Gb/s HD input per ST 292-1, or 270Mb/s SD input per SMPTE ST 259
- Two re-clocked HD or SD program outputs
- Video input relay bypass for power failure bypass protection
- One HD input or SD input digital Key video input
- One HD or SD monitor program output with On-Screen Display
- A comprehensive on-screen menu is available to configure the various features of the module
- 28 different presets for storing VBI keying configurations
- Up to 70 lines of output video can be programmed
- Up to 16 line patterns may be captured from any key input line and stored in User Memories for later insertion on any VBI line

- Each line of VBI independently programmable to pass, blank, insert from key signal, insert from user memory or insert factory test signal
- On-Air Preset configuration selected with GPI, OSD, or VistaLINK® selection
- Non-volatile memory protects current configuration in case of power loss
- Fully hot-swappable from front of frame
- VistaLINK® capable for remote monitoring, control and configuration capabilities via SNMP; using VistaLINK® PRO, CP-2116E or CP-2232E Control Panels. VistaLINK® is available when modules are used with the 3RU 7800FR frame and a 7700FC VistaLINK® Frame Controller module in slot 1 of the frame
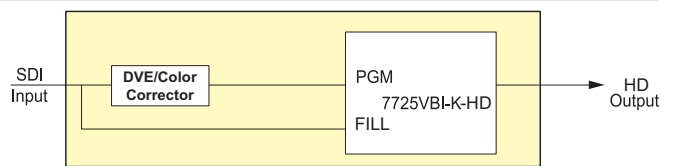
▶Master Control Output Chain Protection

Typically there are several units "chained" together on the output of a master control switcher. Units such as caption encoders, AMOL. encoders, VITS inserters, data encoders, etc. are typically connected in series in the program output so that if one unit fails the network output will fail. The 7725VBI-K-HD allows you to have one point of insertion in the program output path.
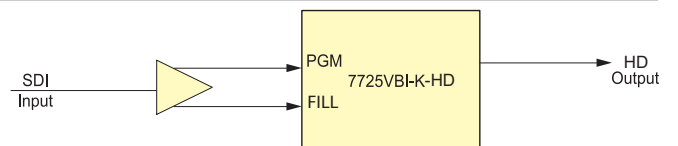

▶VANC Bridging

Some processing devices modify or destroy VBI data such as captioning or VITC. An example of this occurs with some DVEs during a squeeze back application or with HD color correction. The 7725VBI-K-HD device will provide a bypass of VBI around the processing device.
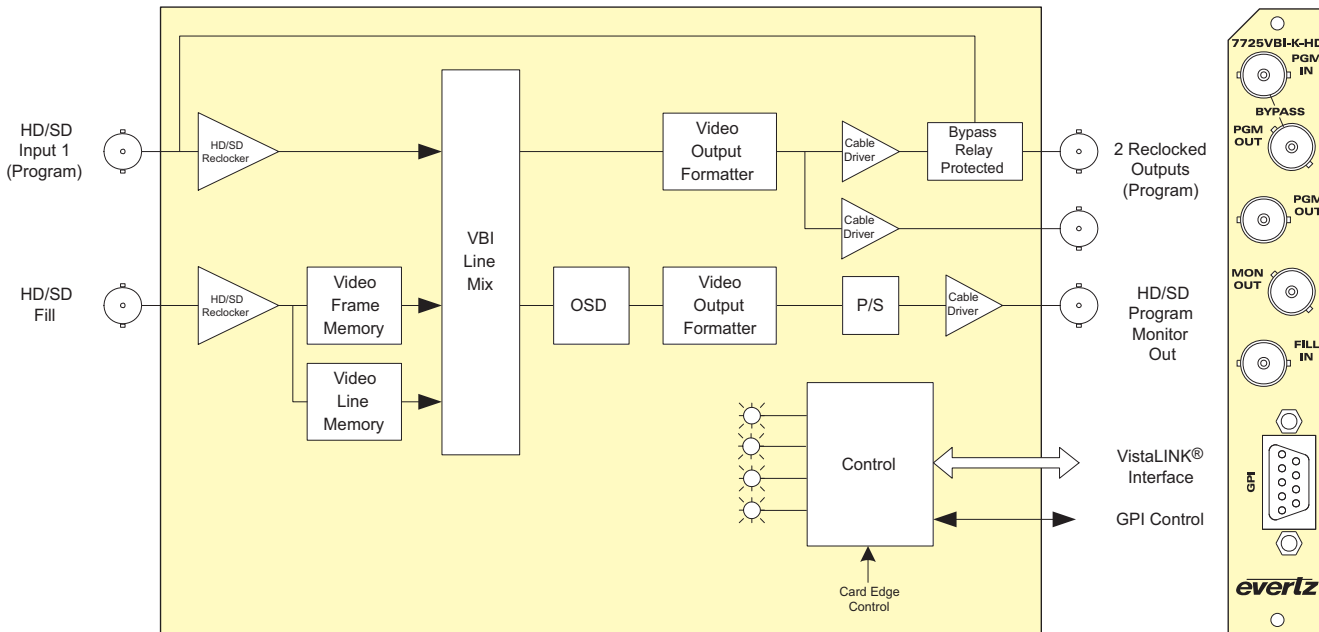

▶VBI Line Shuffler

Some processing devices modify or destroy VBI data such as captioning or VITC. An example of this occurs with some DVEs during a squeeze back application or with HD color correction. The 7725VBI-K-HD device will provide a bypass of VBI around the processing device.

The Complete Solution Provider

Specifications

Serial Video Input:

Standard:	Auto-detect ST 292-1 (1080i/59.94, 1080i/60, 1080i/50, 1080p/23.98, 1080p/23.98sF, 720p/59.94, 720p/60, and 720p/50) SMPTE 259M-C (525i/59.94, 625i/50)
Number of Inputs:	1 for Program video (PGM) 1 for Key Signal to insert (FILL) PGM and FILL need to be synchronous and timed w.r.t. each other (±1/2 line)
Connector:	BNC input per IEC 61169-8 Annex A
Equalization:	Automatic 100m @ 1.5Gb/s with Belden 8281 or equivalent cable
Return Loss:	> 15dB (PGM input)

Serial Video Output:

Number of Outputs:	2 (re-clocked from program, 1 bypass protection) same as input 1 (program monitor) same as input
Connector:	BNC per IEC 61169-8 Annex A
Signal Level:	800mV nominal
DC Offset:	0V ±0.5V
Rise and Fall Time:	200ps nominal
Overshoot:	< 10% of amplitude
Wide Band Jitter:	< 0.20 UI
Return Loss:	> 15dB

General Purpose Inputs:

Number of Inputs:	8
Type:	Opto-isolated, active low with internal pull-ups to +5 or +12V (jumper settable)
Connector:	Female dB-9
Input signal:	Closure to ground

Electrical:

Voltage:	+12V DC
Power:	9.5W
EMI/RFI:	Complies with FCC Part 15 Class A EU EMC directive

Physical:

350FR:	1
7700FR-C:	1
7800FR:	1

Ordering Information

7725VBI-K-HD	HD/SD-SDI VBI Sidechain Bridge Keyer

Ordering Options	Rear Plate must be specified at time of order (Eg: Model +3RU)
Rear Plate Suffix	
+3RU	3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe
+SA	Standalone Enclosure Rear Plate
Accessories	
7700FC	VistaLINK® Frame Controller
CP-2116E-H	Remote Control Panel
CP-2232E	Remote Control Panel

Enclosures

350FR	3RU Portable Multiframe which holds up to 7 single slot modules
7700FR-C	3RU Multiframe which holds up to 15 single slot modules
7800FR	3RU Multiframe which holds up to 15 single slot modules
7801FR	1RU Multiframe which holds up to 4 single or 2 dual slot modules
S7701FR	Standalone Enclosure