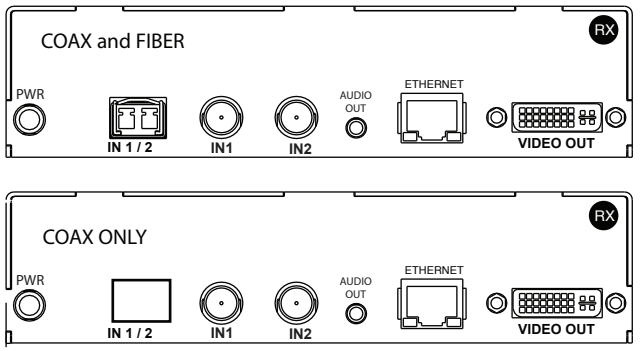
VIDBLOX - 3G-SL Series

Convert SD/HD/3G video to DVI, VGA, RGB, YPbPr



PESA's VidBlox 3G-SL Fiber and Coax Scaler/Receiver unit accepts an input of HD/3G video and converts it to single link DVI (HDMI with adapter) or VGA. Resolutions up to 1920X1200 are supported for true High Definition performance. HD/3G video signals are connected to the inputs and DVI/VGA devices are connected to the output. When a high definition SMPTE 292M or 424M formatted video signal is connected, the built-in scaler technology allows proper formatting of the computer generated video output signal.

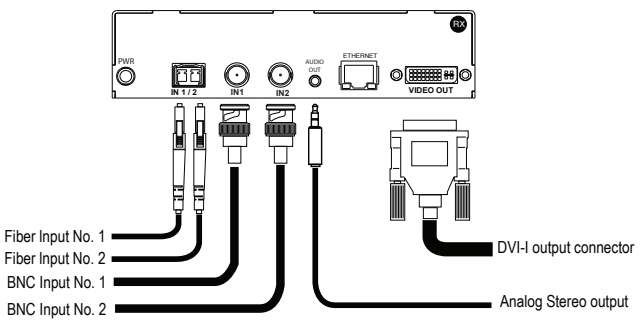
Engineered to the latest 3G-SDI high-resolution image performance specifications, the PESA VidBlox series offers perfect pixel-for-pixel transmission of DVI computer video images up to 1920X1200; including 1080p/60. Vidblox includes EDID emulation coding and internal test patterns.

Offering both coax and fiber inputs in the same module, the 3G-SL opens up a wide range of capabilities for mission critical redundancy or system backup requirements. With the optional fiber ports activated, systems can be setup to receive long haul video transports from well over 10km away and with the parallel coax inputs, local sources can be connected from distances as far as 80m away.

Because transmission over fiber is inherently secure and immune to outside interference, fiber applications are favored in government, military, and medical environments. The 3G-SL supports both singlemode and multimode fiber cabling with an optional duplex SFP pluggable fiber input module. Each port supports input data rates up to 1080p/60. Additionally, each 3G-SL module comes standard with two BNC ports allowing two additional 1080p/60 input ports. With a total of four input ports, the 3G-SL can be configured to select any one of up to four incoming signals. Primary and secondary sources can be pre-set via the Cattrax setup program or auto-detected in a fail-over configuration.

The 3G-SL de-embeds auxiliary audio to an unbalanced stereo audio output. Also included on the input transport video from a 3G-SL transmitter is resolution-format data allowing each unit to properly communicate the specific resolution and format of the data received. Each 3G-SL can be controlled and configured using PESA's Cattrax control software application through a USB connection, or up to 1024 modules can be managed or monitored over a network connection. A wide range of adjustments and calibration features are available with Cattrax allowing output scaling, progressive to interlace conversion, test pattern setup, audio muting, and a large array of signal measurements for fiber and coax inputs.

In addition to DVI and VGA, each 3G-SL can be set up to output other component video inputs such as RGsB, RGBS, and RGBHV where sync levels are different than traditional VGA. Each 3G-SL can be used in conjunction with all PESA 3G-SDI routers and distribution gear.



Specifications

- Accepts inputs from SD/HD/3G high definition video sources
- Input connections for fiber or copper ports
- Resolution outputs up to 1920X1200@60Hz (WUXGA)
- Supports both singlemode or multimode fiber inputs in the same unit
- Converts SD/HD/3G to DVI, VGA, RGB, RGBHV
- Accepts 480p, 720p, 1080i, and 1080p inputs
- Compliant with SMPTE ST-259-C, 292, 424
- Up to two fiber and two coax inputs per unit
- Full set of LED indicators for monitoring and troubleshooting
- Auto memory – module remembers last known setup
- EDID emulation mode
- 10/100 Network Connection (control software optional)
- "Auto-black" configuration to keep hot-plug detect active during switch-away mode and prevent "input hunting" on LCD displays
- Rack mount and under-table mounting brackets available
- Redundant power available for 1RU and 2RU extender frame

Model	Description	Part Number
VIDBLOX	Media extender, SD/HD/3G to DVI, VGA, or RGB (coax)	VIDBLOX-3G-SL-C
VIDBLOX	Media extender, SD/HD/3G to DVI, VGA, or RGB (fiber)	VIDBLOX-3G-SL-F

BROADCAST VIDEO INPUT SPECIFICATIONS

Input Video Standard	SMPTE 292M,424M
Input Connector Style	75 Ohm BNC (X2) LC Fiber (Duplex SFP)
Number of Inputs – BNC	2
Number of Inputs – Fiber	2 (optional)
Input Format Signals	480p /720p / 1080i /1080p
Input Frame Rates	50 / 59.94 / 60
Input Data Rates	270Mbps, 1.5Gbps (HD) and 3.0Gbps (3G-SDI)
Digital Inputs – BNC	
Impedance	75 Ohm
Return Loss	> 10dB, 1.5GHz to 3GHz
Input Signal Level	800 mV p-p, +/- 10%
Input Signal Polarity	Non-inverting
Input Jitter	SMPTE 292M < 0.2UI, p-p SMPTE 424M < 0.3UI, p-p Compliant with RP-184
Input Cable Equalization	1.5Gbps – 100m 3.0Gbps – 80m Based on Belden 1694A or equivalent cable

Digital Inputs - Fiber

NOTE: Operating distance is approximate. Typical distances may vary depending on factors such as fiber type, bandwidth, connector splicing, dispersion, and environmental factors.

Laser devices used in Vidblox modules are class 1 laser products. They meet the safety regulations of IEC-60825, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11.

Connector Type	Dual SFP (small form factor pluggable)
Connector Cable Style	LC
Output Data Rates	1.5Gbps (HD) and 3.0Gbps (3G-SDI)
Optical Wavelength	Accepts 1270nm to 1610nm (1310nm optimal)
Input Power	Min. -20dBm, Max. -1dBm
Loss Budget (assumes two optical couplers w/ 10km SM cabling)	Approx. 9dB

Typical Operating Distances	
9/125u	estimated at 10Km (6.25 miles)
50/125u	approx. 400m (1200ft)
62.5/125u	approx. 200m (600ft)
Rise / Fall Time	
SMPTE 292M	≤ 270 ps
SMPTE 424M	≤ 135 ps
Overshoot	< 10% of amplitude (max.)
Alignment Jitter	
	SMPTE 292M - < 0.2 UI
	SMPTE 424M - < 0.3 UI
Timing Jitter	
	SMPTE 292M - <1.0 UI
	SMPTE 424M - < 2.0UI

COMPUTER OUTPUT SPECIFICATIONS

Output Connector Type – Computer	DVI-I
Output Connector Type – Audio	3.5mm stereo jack
Connector Type – Network	RJ-45
Number of Outputs – Computer	1
Number of Outputs – Audio	1
Computer Output Signal Type	DVI, VGA, RGsB, RGBHV, YPbPr
Audio Output Signal Type	Stereo Audio – unbalanced
Computer Output Resolutions	DVI up to 1920X1200@60Hz VGA and component video to 1920X1200@60Hz RGB, YPbPr at 720p/1080i/1080p
Output Resolutions Supported	640X480@60Hz, 800X600@60Hz, 1024X768@60Hz, 1280X1024@60Hz, 1680X1050@60Hz,1600X1200@60Hz, 1360X768@60Hz, 1920X1200@60Hz,
Signal Output Formats	CEA-861-E, DDWG 1.0
Output Data Rates	1.65 Gbps (single-link)
Output Color Depth	24bit
Output DDC Protocol	E-EDID (emulated)
Output Hot Plug Detect	Yes

AUDIO OUTPUT SPECIFICATIONS

Connector Style	3.5mm mini stereo jack
Audio Output Impedance	< 100 Ohms, unbalanced, DC coupled
Input Level	Line level (3.7V p-p max.)
Maximum level	+10dBu
Frequency Response	+/- 0.1dB, 20Hz to 20kHz
THD+N	< 0.01%
SNR	> 90dB
Audio bits per sample	18 bits per channel, 2 channels (L,R)
Sample Rate	48kHz

ENVIRONMENTAL

Cooling – Module	Fan module
Operating Temperature	0-40° C
Operating Humidity	10-90% non-condensing
Product Dimensions / Weight	6.75W X 6.25D X 1.65H 171.45mm X 158.75mm X 41.91mm 0.5 lbs per unit

CONTROL

Control Input Port	Mini-USB for local software setup and diagnostics 10/100 Ethernet port for network control
Control Program	Cattrax - Network Control Software

POWER

External Power	90VAC to 240VAC, 50-60Hz, external, 12VDC, 1A, regulated Power Brick with optional AC inlet for U.S., UK, or EURO style plugs
Power Input – Modules	12VDC, 0.4A

RACK MOUNTING OPTIONS

Rack Mount Kits	1RU Frame – holds two units 2RU Frame – holds four units
Rack Mount Cooling	Two Fans mounted in power distribution module
Temperature /Humidity	
Storage:	-40 to +70 C / 10% to 90%, non-condensing
Operating	0 to 50 C / 10% to 90%, non-condensing
AC adapter Input	100VAC to 240VAC, 47-63Hz, 1.2A max., IEC plug
AC adapter Output	12VDC, 7A max.
1RU Rack Mount Kit Dimensions / Weight	
	19.00W X 6.25D X 1.75H 482.6mm X 158.75mm X 44.45mm 1.65lbs empty, 3.65lbs full
2RU Rack Mount Kit Dimensions / Weight	
	19.00W X 6.25D X 3.50H 482.6mm X 158.75mm X 88.9mm 2.00lbs empty, 4.65lbs full

Redundant power available as an option

Under-table mounting bracket includes mounting holes and thumbscrews for quick removal of module

WARRANTY

3 years parts and labor

SAFETY AND COMPLIANCE

CE	EN60950, EN55022
FCC	FCC Part 15
Environmental	RoHS / WEEE
Fiber Safety	Class 1 Laser Product IEC 60825-1:1993 + A1:1997 + A2:2001

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