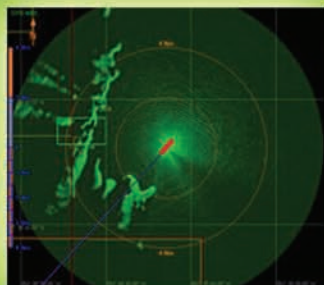# VGA2USB LR

VGA2USB LR is a frame grabber designed with price and versatility in mind. It's priced significantly lower than top-end devices such as the VGA2USB HR or Pro, yet shares many features with them. This includes Epiphan Systems' lossless compression technology and on board RAM. The VGA2USB LR is able to capture lossless images with resolutions of up to 1280x1024 at frame rates of at least 30fps.
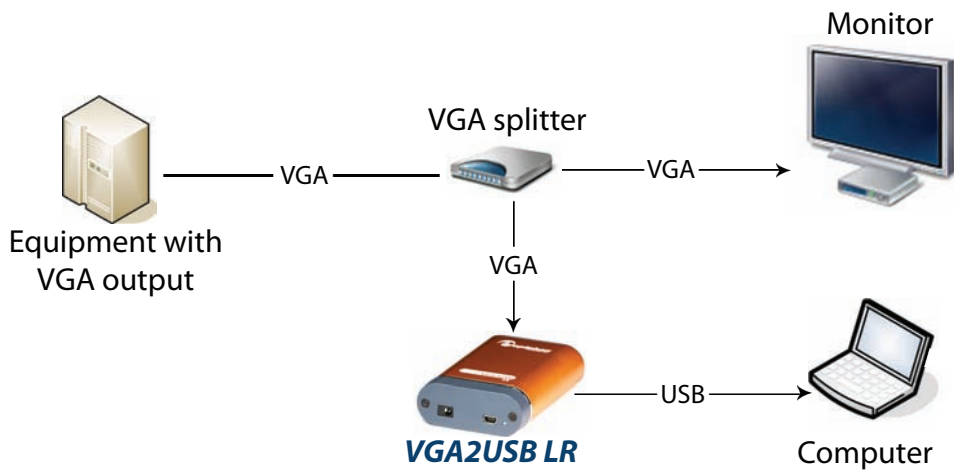
The VGA2USB LR is best suited for industrial, medical, scientific, and military applications where reliability and security is a must. About the size of a box of paperclips, the VGA2USB LR's solid casing is made entirely of aluminum.

Radar, ultrasound, navigational, security, and microscope imagery is best captured with the VGA2USB LR, as long as the source resolution is kept below 1280 x 1024. The VGA2USB LR is also excellent for capturing from sources with significant movement from frame to frame.

The package contents of the VGA2USB LR include everything to get you started, including a passive VGA Y-splitter, universal power supply, installation guide, and all associated VGA and USB cables.

VGA2USB LR Connection Diagram

Monitor

VGA splitter

VGA

Equipment with VGA output

VGA

VGA

USB

VGA2USB LR

Computer

Features:

- 1280 x 1024 maximum capture resolution.
- Capture rates of up to 60fps.
- 16MB on board RAM buffer.
- 100% lossless on board compression.
- View, record, archive, broadcast, or print directly from a VGA stream.
- Compatible with 3rd party software via WDM drivers.
- External power source required. Universal adaptor included.
- Full hardware solution – no software required on source machine.

Technical Specifications:

Interface	Supports USB 2.0 and USB 1.1 buses. Performance of the VGA2USB LR device will be significantly downgraded, however, when connected to a USB 1.1 bus.
Dimensions	3.54" x 2.36" x 0.91" 90 x 60 x 23 mm
Connectors	One VGA D type connector One USB mini B type connector One 5V DC 1.3mm power supply connector
VGA Signaling	R,G,B plus separate HSYNC and VSYNC signals; R,G,B plus CSYNC signal; R,G,B with Sync-On-Green synchronization.
VGA Modes	HSYNC rate is between 15KHz and 150KHz Pixel rate is between 12 MPixel/s and 120 MPixel/s for noninterlaced grab Pixel rate is between 120 MPixel/s and 160 MPixel/s for two consequent frame interlaced grab.
Color Resolution	RGB24 (8:8:8), RGB16 (5:6:5), RGB8 (2:3:3), YUY2 UYUV
Supported Video Modes	720x400 at 70, 85Hz 640x480 at 60, 70, 72, 75, 85Hz 800x600 at 56, 60, 70, 72, 75, 85Hz 1024x768 at 60, 70, 72, 75, 85Hz 1152x864 at 60, 70, 75, 85Hz 1152x900 at 66, 76Hz 1280x960 at 60, 85Hz 1280x1024 at 60Hz 1024x768 38Hz Interlaced
Update Rate	Frame rate varies depending on content

Resolution	Frame rate
640 x 480	30.0 - 60 fps
800 x 600	22.6 - 60 fps
1024 x 768	15.0 - 60 fps
1280 x 1024	10.0 - 51 fps

Video Format Options	RGB plus HSync and VSync (5 wire)
LEDs	One LED to indicate the status of the VGA2USB (power, readiness, and operation in progress)
OS Support	Linux(x86, amd64), Windows 2000, Windows XP, Windows Vista (x86, amd64), Mac OS X 10.3 and up