Enable, Inc.
Imaging Innovations

PRODUCT BRIEF

video processing unit with USB 3.0
and HDMI output for all -XS products

introduction:

Enable Inc., has developed this module
to be used with any of the minnieCam™ -XS
or minnieScope™ -XS products.

This is a USB 3.0 UVC (USB Video Class) compliant
device; compatible with numerous commercially
available USB camera software. It also offers an
HDMI output; compatible with HDMI or DVI
monitors. Appropriate adopter (HDMI to DVI)
is necessary for DVI monitors (not provided).

A lower-cost HDMI output only version of this
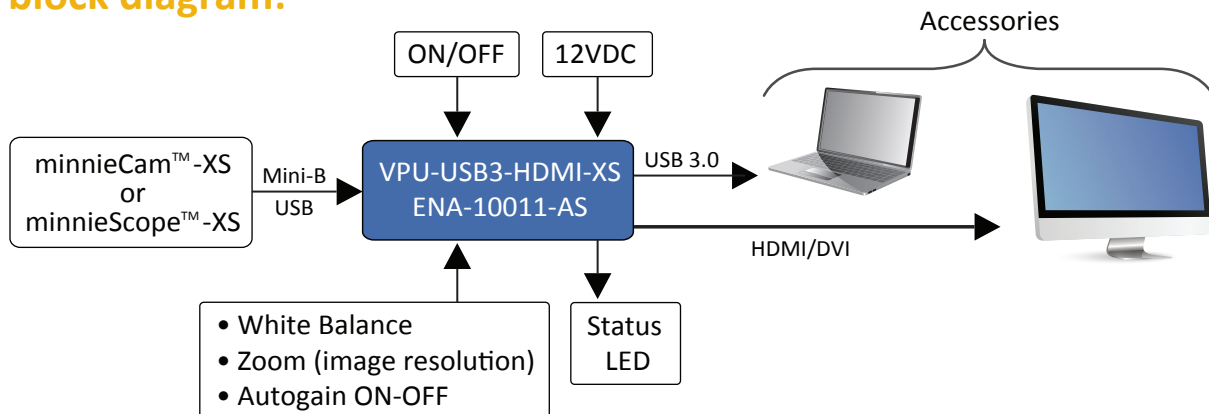hardware is also available (ENA-10017-AS).

A universal 12VDC wall plug transformer,
HDMI cable, and USB 3.0 cable are provided
with the module.

The ENA-10011-AS does not include recording
software, but it is a UVC compliant device.
Enable Inc. also offers additional accessories
for recording and storing video or images.

product features:

- interface for minnieCam™ -XS or minnieScope™ -XS products.
- real-time output output to USB 3.0. Video format YUV422 at 30fps. UVC compliant device. Support for Win7 OS. Does not include recording software.
- real-time video output (1080p at 60fps) support for HDMI/DVI ready monitors.
- simple manual White Balance operation.
- interpolation algorithms produce higher resolution video outputs only on HDMI output via Zoom button.
- Zoom button toggles among several video output formats; higher in resolution than the native 400x400.
- max of 1Mpixel output available.
- autogain function and autoexposure control built in. Autogain ON/OFF capability also available.

block diagram:

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product specifications: ENA-10011-AS

electrical characteristics:		input/output:	
video output	DVI 1080p 60fps progressive USB 3.0; YUV422 format @ 30fps[1]	output video port	HDMI (female type A)[3] Micro-B USB (female)
input voltage[2] (2.1mmx5.5mm receptacle): male center positive	DC 12V typ. 7.5V min / 12V typ. / 18V max	camera input port[4]	Mini-B USB 5pin
		status LED[5]	indicates different functions
current consumption @ 12V	200mA typical 180mA min/310mA max	keyboard (3 buttons)	White Balance (WB) Zoom[6] (400x400) to (1000x1000) Autogain ON/OFF[7]

[1] UVC compliant device with support for win 7 OS.

[2] A 12VDC wall-plug transformer is also shipped with this module.

[3] Compatible with HDMI or DVI ready monitors. When connecting to a DVI monitor, the proper HDMI to DVI adapter must be used.

[4] Connect to minnieCam™ -XS or minnieScope™ -XS products with corresponding connector.
Note that this VPU-USB3-HDM-XS model IS NOT COMPATIBLE with –L camera sensors.
Damage may occur to both the -L sensor and this VPU-USB3-HDMI-XS module.

[5] See the operating instructions section for more details about the function of the status LED.

[6] Zoom button ONLY changes the HDMI output resolution between the native 400x400 pixels up to 1,000x1,000 pixels in 3 steps. The Zoom button does not affect USB 3.0 output resolution which is always 400x400.

[7] Toggles autogain function ON/OFF. When autogain is turned OFF, gain is set to the middle of the range.

disclosures:

NOTE: *We do not guarantee that the HDMI output of the VPU-USB3-HDMI-XS is compatible with all monitors, TVs, or recorders with an HDMI input port. The HDMI video output of this device is compatible only with displays and recorders that comply with it's video specifications.*

NOTE: *Several TV's may not be able to display video from the HDMI output of this VPU (unless they comply with all the specifications of the HDMI output of our hardware).*

NOTE: *We have successfully tested compatibility of the HDMI output of the VPU-USB3-HDMI-XS with many different commercially available computer monitors (especially those with a DVI input port) for as long as they comply with the HDMI video output specifications of this device.*

Please contact us for all your imaging needs and more detailed data sheets.

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