

USB3 Neo interface board

FOR LVDS zoom block cameras



New TWIGA compact USB3 Neo interface board

Twiga USB3 Neo converts the native LVDS video signal from zoom block cameras to USB3 standard.

You will take advantage of new visualization, processing and image transfer solutions by using the USB3 streaming possibilities.



Plug & Play LVDS to USB3 solution



A simple USB3 cable is enough to power, to control and to stream HD video from the camera. This enables easy implementation of image capture solutions on most devices with a USB3 port (single board computers, Nvidia platforms or PC using Windows or Linux OS).



Uncompressed video stream

Twiga USB3 Neo provides uncompressed UVC compliant video stream. This enables you to use standard application (i.e VLC, Amcap, Windows camera) for image capture, recording & viewing. It also allows to develop custom application and image processing based on DirectShow, GStreamer or OpenCV.

Add-on connector for extended functions

A board-to-board connector available on the back side of the USB3 module will allow you to plug-in additional boards to get more capabilities (i.e **4K camera compatibility**), to implement your own functions (i.e Sync information, strobe pulse, external trigger, accelerometer).

FEATURES

- Super speed USB 3.2 Gen 1
- Uncompressed HD video
- Video resolution up to 1080p60
- USB Video Class (UVC) Compliant
- Communication
 - USB CDC (COM port / tty)
 - VISCA camera control via local UART
 - GPIOs for keypad connection
- Camera external power supply 6V-12VDC *
- Supports Windows and Linux OS

*Refer to camera technical manual for max power supply input

TARGET APPLICATIONS



Medical imaging



ANPR
Traffic control



UAVs
Surveillance



Low vision
Inspection

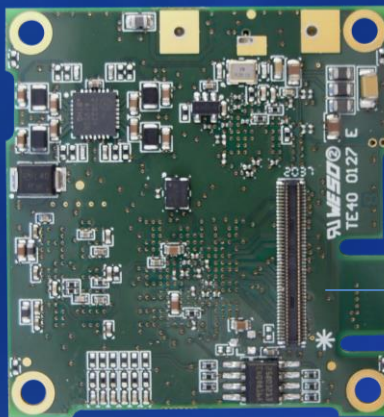
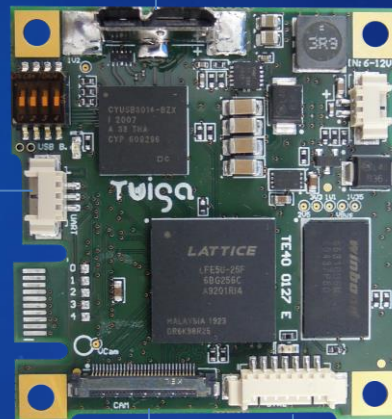
Onboard Connectors

J204 **USB3.2**



J202 UART TTL	
1	GND
2	Rx
3	Tx

J203 **LVDS input**



J300 External Power supply	
2	V+
1	GND

J200 GPIOs	
1	GND
2	Zoom +
3	Zoom -
4	Focus Auto/Manual
5	Focus Near
6	Focus Far
7	Freeze On/Off

J201 Board to Board connector	
Extended functionalities	

Functions	Specifications
Digital video output	USB3.2 Gen 1 – UVC compliant
Camera setting and control	VISCA protocol via USB CDC or UART TTL
GPIOs	Camera commands
Digital video output connector	USB3 micro B-type
Power supply	USB3 cable or external 6 to 12 VDC
Operating temperature range	0°C to 60°C
Storage temperature range	-20°C to 60°C
Regulation	CE EMC compliant, PCB : UL 94 V0
Dimensions (mm)	48 (H) x 45 (W) x 11 (D)
Weight (g)	13

P/N Electronic Board:	TV10 0083 USB3 Neo	
P/N Accessory kit:	TV50 0025 Mounting kit	TV50 0026 Cable kit
30 way USL20-30SS-012-C Cable assembly	✓	✓
2 way cable (External power supply)	✓	✓
7 way cable (GPIOs)	✓	
3 way cable (COM – UART TTL)	✓	
Right angle black anodized bracket	✓	
Screws + spacers	✓	



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