

# iVIS-200 Series

Intel® Atom™ E3845 Processor Board for x86-based Smart Camera Framework



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## Key Features

- Intel® Atom™ E3845 quad-core 1.91 GHz
- Built-in GigE/ USB3.0/ USB2.0 camera interfaces
- Patented DTIO technology\* for accurate trigger/strobe control
- Built-in 500 mA constant current and 24 V constant voltage LED controller
- 802.3at PoE+ PD and auxiliary DC dual power input
- Water-proof M12 connectors

\*R.O.C Patent No. 1526834

## Introduction

iVIS-200 consist of an Atom™ E3845 processing unit as part of an innovative smart camera framework that allows you to build up your own x86-based smart camera by integrating an off-the-shelf camera.

iVIS-200 features an ultra-compact footprint and it has GigE/ USB3.0/ USB2.0 camera interfaces. It also incorporates Neosys' DTIO technology for precise trigger/ strobe control and built-in constant current/ voltage LED controller for driving the LED light. Moreover, iVIS-200 carries 802.3at PoE+ PD (Powered Device) capability, so you can simply access and power your smart camera with just one Ethernet cable.

Targeted at different vertical markets, iVIS-200 series are available in several barebone configurations. iVIS-210B-MVS and iVIS-211B-MVS are designed for machine vision applications and come with a slim enclosure to accommodate Basler Dart and Point Grey Chameleon3 board camera, respectively. While iVIS-220B-ITS and iVIS-227B-ITS are aimed at intelligent traffic systems. They are equipped with an IP50 and an IP67 enclosure to accommodate a 29mm x 29mm USB3.0/ GigE camera. They also feature a mini-PCIe slot with SIM support for installing a 3G/ 4G/ WIFI module.

You can utilize iVIS-200 to construct an innovative framework and further expand the possibilities of your smart camera. With iVIS-200, you can quickly build your own smart camera based on Windows/Linux open platform and maximize your vision software.

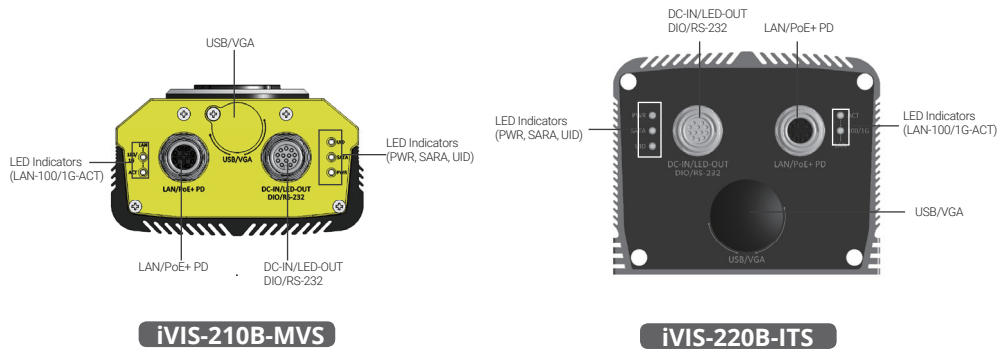
## Specifications

	iVIS-210B-MVS iVIS-211B-MVS	iVIS-220B-ITS iVIS-227B-ITS		iVIS-210B-MVS iVIS-211B-MVS	iVIS-220B-ITS iVIS-227B-ITS
<b>System Core</b>			<b>Storage/Expansion Interface</b>		
Processor	Intel® Atom™ Bay Trail-I E3845 quad-core processor		Mini-PCIe	-	1x full-size mini-PCIe socket with SIM support
Graphics	Integrated Intel® HD graphics		<b>OS Support</b>		
Memory	Up to 8GB DDR3L-1333 (single SO-DIMM slot)		Windows	Windows 7 32/ 64-bit, WES7	
<b>On-board Camera Interface</b>			Linux	Ubuntu 14.04, OpenSUSE 13.1, Fedora 20	
Ethernet	1x GigE interface by Intel® I210		<b>Power Supply</b>		
USB	1x USB3.0 interface		PoE+ PD	Support IEEE 802.3at PoE+ PD (powered via Ethernet cable)	
Trigger I/O	1-CH trigger-out (to camera) and 1-CH strobe-in (from camera)		Auxiliary DC-IN	Support 12/24V DC auxiliary power input when PoE+ PSE is not available	
<b>Panel I/O Interface (M12 connectors)</b>			<b>Mechanical</b>		
Ethernet	1x Gigabit Ethernet ports by Intel® I210		Dimension	83mm (W) x 48mm (D) x 150mm (H)	88mm (W) x 151mm (D) x 74mm (H)
Trigger Input	2-CH isolated trigger input (<2us L-to-H and H-to-L propagation delay)		Weight	0.55 kg	0.95 kg
Strobe Output	1-CH isolated strobe output (24 VDC / 0.5 A rated)		<b>Environmental</b>		
LED Illumination Controller	1-CH LED illumination driving output, supporting 24V DC constant voltage mode or 500 mA max. adjustable constant current mode with 100 KHz, 250 steps PWM dimming control		Operating Temperature	-25°C ~ 60°C, 100% CPU loading */**	
COM	1x 3-wire RS-232		Storage Temperature	-40°C ~ 85°C	
<b>Auxiliary I/O Interface (internal wafer connector)</b>			Humidity	10%~90% , non-condensing	
VGA	1x VGA port		Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, w/ o add-on card, according to IEC60068-2-64)	
USB	1x USB 2.0 port		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, w/ o add-on card, according to IEC60068-2-27)	
<b>Storage/Expansion Interface</b>			EMC	CE/FCC Class A, according to EN 55022 & EN 55024	
mSATA	1x half-size mSATA port				

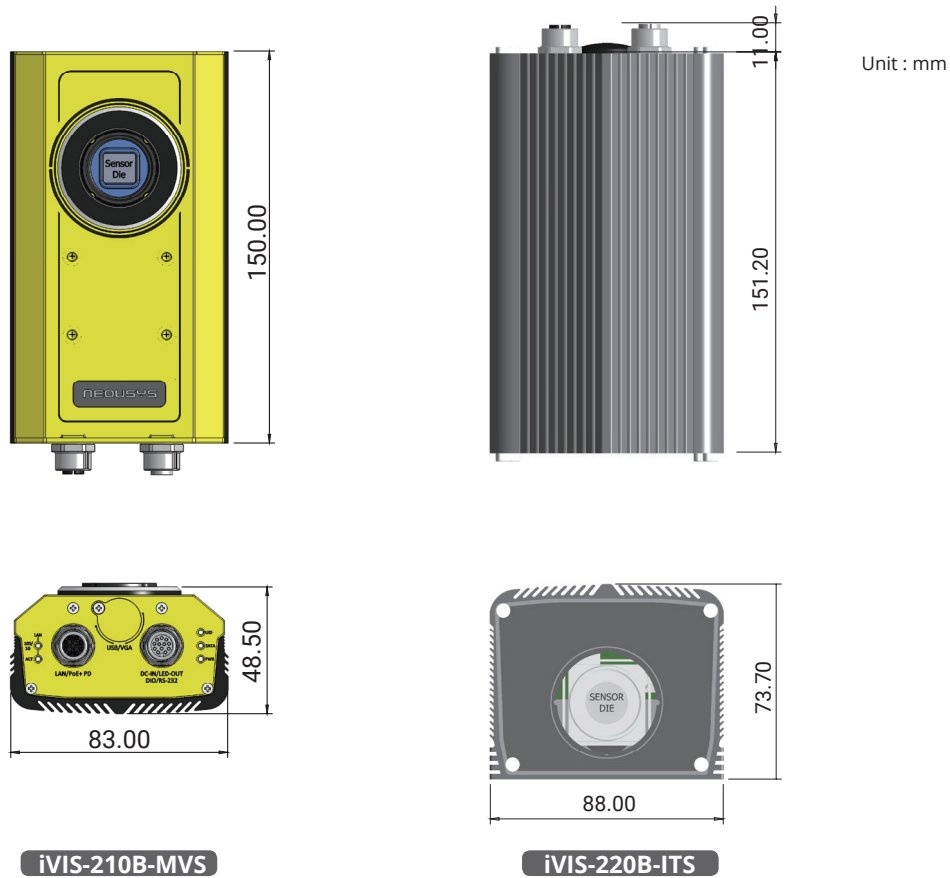
\* When using built-in LED illumination controller to drive LED light, 24 VDC input is required to meet the rated current of the M12 connector

\*\* The 100% CPU loading is applied using Passmark® BurnInTest™ v7.0. For detail testing criteria, please contact Neosys Technology

## Appearance



## Dimensions



## Ordering Information

Model No.	Product Description
iVIS-210B-MVS	Intel® Atom™ E3845 smart camera framework for MV application, accommodating Basler Dart camera (CS-mount)
iVIS-211B-MVS	Intel® Atom™ E3845 smart camera framework for MV application, accommodating Point Grey chameleon3 camera (CS-mount)
iVIS-220B-ITS	Intel® Atom™ E3845 smart camera framework for ITS application, accommodating COTS 29mm x 29mm USB3/GigE camera, with IP50 enclosure
iVIS-227B-ITS	Intel® Atom™ E3845 smart camera framework for ITS application, accommodating COTS 29mm x 29mm USB3/GigE camera, with IP67 enclosure

## Optional Accessories

Cable kit for USB3.0 camera

Cable kit for GigE camera