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**SENTECH**

Sensor Technologies America, Inc.



# Sentech has 30 Years Experience in Designing and Manufacturing Industrial Cameras



OMRON SENTECH headquarters in Kanagawa, Japan

## **Headquarter**

OMRON SENTECH CO., LTD  
Ebina-shi, Kanagawa, Japan

## **Factory**

Juji-Denshi, Yonezawa-shi

## **Established**

SENTECH Co., Ltd that was established in November 1987 and has become OMRON's 100% subsidiary company as OMRON SENTECH CO., LTD in July 2017

## **Staff Strength**

100 strong and growing
















## **Subsidiaries**

**United States**, China, Taiwan, Singapore, Germany

## **Partners/Distributors**

Korea, Hong Kong SAR, Europe, Southeast Asia, India, Australia

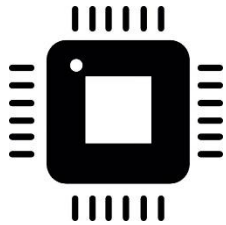
# Sentech focuses on Machine Vision but we support a wide range of markets and applications

Automation/ Machine Vision	 <b>Automotive</b>	 <b>Semiconductors</b>	 <b>AOI</b>
	 <b>Foods &amp; Beverages</b>	 <b>Robotics</b>	 <b>Printing &amp; Packaging</b>
Traffic	 <b>ANPR</b>	 <b>Enforcement</b>	 <b>Traffic Management</b>
Medical & Science	 <b>Microscopes</b>	 <b>Endoscopes</b>	 <b>Biomedical</b>
More...	 <b>Low Vision</b>	 <b>Pipe Inspection</b>	 <b>Welding</b>

# 4 Core Values make Us a strong partner for You

## Excellent Hardware

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Our camera housings are robust and provide the most efficient thermal dynamics in the industry due to the excellent mechanical design. This ensures a long lasting and very high image quality .

## Software Flexibility

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Our drivers support Windows, Linux, OSX and a wide range of 3rd party libraries, providing a very fast and easy integration. Our SDK gives you the freedom via C++, C# or .NET to unfold your programming needs.

## Engineering Force

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With over 30 years of experience in the imaging world, our engineers can support you in many ways. We understand your needs and meet them in all respects. If necessary, we are open to discuss required modifications.

## Pricing

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Sentech produced more than 120,000 cameras in 2016, placing us in the top 5 globally for quantities by industrial camera manufacturers. Due to the large quantities, we can offer our high quality cameras at a very attractive price position.

# Sentech GigE Vision Cameras are easy to integrate into existing vision systems



## Hardware

- Ethernet Connector with Lock Down Screws
- POE (Power over Ethernet)
- Efficient Heat Dissipation
- Robust Aluminium Housing
- Ultra Compact Size

## Interface Characteristics

- Bandwidth: 1,000 Mbit/s
- Max Cable length: 100 m
- Low Total System Cost
- Ideal for large Networks with up to 100 Cameras
- Plug & Play Functionality

## Software

- GigE Vision® and GenICam™ compliant
- Includes Viewing Software and SDK
- Multiple ROI 's (Region of Interest)
- Low Light Extended Integration
- Various Hard- and Software Trigger Modes



# Sentech has integrated the most popular CMOS Sensors into our GigE Vision cameras



**CMOS Sensors**



Monochrome	Color	Frame Rate	Resolution	Sensor Size	Sensor
STC-SBS43POE	STC-SCS43POE	265	.4MP	1/2.9"	IMX287
STC-SBE132POE	STC-SCE132POE	61	1.3 MP	1/1.8"	e2V EV76C560A
STC-SBS163POE	STC-SCS163POE	69	1.6MP	1/2.9"	IMX273
STC-CMB2MPOE	STC-CMC2MPOE	50	2 MP	2/3"	CMV2000
STC-SBS231POE	STC-SCS231POE	41	2.3 MP	1/1.2"	IMX249
STC-SBS241POE	STC-SCS241POE	45	2.3 MP	1/1.2"	IMX174
STC-SBS312POE	STC-SCS312POE	33	3 MP	1/1.8"	IMX265
STC-CMB4MPOE	STC-CMC4MPOE	25	4 MP	1"	CMV4000
STC-SBS500POE	STC-SCS500POE	21	5 MP	2/3"	IMX264
STC-SBA503POE	STC-SCA503POE	14	5 MP	1/2.5"	MT9P031I12ST
	STC-SCS853POE	12.7	8.5 MP	1/2.5"	IMX274
STC-SBA1002PE		10.4	10MP	1/2.3"	MT9P003
	STC-SCS1242POE	8.7	12 MP	1/1.7"	IMX226

**Near IR Models**

Monochrome	Frame Rate	Resolution	Sensor Size	Sensor
STC-CMB2MPOE-NIR	50	2 MP	2/3"	CMV2000NIR
STC-CMB4MPOE-NIR	25	4 MP	1"	CMV4000NIR



# Sentech can still supply CCD POE cameras



## GigE Vision - CCD Sensors



Monochrome	Color	Frame Rate
STC-SB33POE	STC-SC33POE	90
STC-SB83POE	STC-SC83POE	36
STC-SB152POE	STC-SC152POE	19
STC-SB202POE	STC-SC202POE	15
STC-SB500POE	STC-SC500POE	15

## GigE Vision - CCD High Speed

Monochrome	Color	Frame Rate
STC-SB33POEHS	STC-SC33POEHS	122
STC-SB32POEHS	STC-SC32POEHS	122
STC-SB133POEHS	STC-SC133POEHS	40
STC-SB152POEHS	STC-SC152POEHS	34
STC-SB202POEHS	STC-SC202POEHS	30



# Sentech USB3 Vision cameras combine Plug & Play functionality with high speed image transfer



## Hardware

- USB 3.0 Micro B Connector with Lock Down Screws
- Efficient Heat Dissipation
- Robust Aluminium Housing
- Ultra Compact Size

## Interface Characteristics

- Bandwidth: 5,000 Mbit/s
- Max Cable length: 5 m (30 m with active cables)
- Low Total System Cost
- High Speed
- Plug & Play Functionality

## Software

- USB3 Vision® and GenICam™ compliant
- Includes Viewing Software and SDK
- Multiple ROI 's (Region of Interest)
- Low Light Extended Integration
- Various Hard- and Software Trigger Modes



# Sentech's USB3 Vision product line utilizes the full diversity of the Sony Pregius series



Monochrome	Color	Frame Rate	Resolution	Sensor size	Sensor
STC-MBS43U3V	STC-MCS43U3V	527	.4MP	1/2.9"	IMX287
STC-MBE132U3V	STC-MCE132U3V	60	1.3 MP	1/1.8"	e2V EV76C560A
STC-MBS163U3V	STC-MCS163U3V	238	1.6MP	1/2.9"	IMX273
STC-MBCM200U3V	STC-MCCM200U3V	167	2 MP	2/3"	CMV2000
STC-MBS231U3V	STC-MCS231U3V	41	2.3 MP	1/1.2"	IMX249
STC-MBS241U3V	STC-MCS241U3V	163	2.3 MP	1/1.2"	IMX174
STC-MBS312U3V	STC-MCS312U3V	56	3 MP	1/1.8"	IMX265
STC-MBS322U3V	STC-MCS322U3V	121	3 MP	1/1.8"	IMX252
STC-MBCM401U3V	STC-MCCM401U3V	89	4 MP	1"	CMV4000
STC-MBS500U3V	STC-MCS500U3V	36	5 MP	2/3"	IMX264
STC-MBS510U3V	STC-MCS510U3V	75	5 MP	2/3"	IMX250
STC-MBA5MUSB3	STC-MCA5MUSB3	14	5 MP	1/2.5"	MT9P031/12ST
STC-MBS881U3V	STC-MCS881U3V	32.2	8.9 MP	1"	IMX267
STC-MBS891U3V	STC-MCS891U3V	42.3	8.9 MP	1"	IMX255
STC-MBS122BU3V	STC-MCS122BU3V	23.4	12 MP	1.1"	IMX304
STC-MBS123BU3V	STC-MCS123BU3V	30.5	12 MP	1.1"	IMX253

# Sentech USB 3.0 UVC Camera

## USB 3.0 Single Board Models

### Key Features

- Standard USB 3.0 Micro B Type Connector
- USB 3.0 and USB 2.0 compatible
- Size: 23 x 20 mm
- The USB Video Class (UVC) driver is a Microsoft-provided AVStream mini-driver that provides driver support for USB Video Class devices.
- Operates like a webcam but is built for industrial uses.
- Low Cost

Color	Frame Rate	Resolution	Sensor size	Lens Mount	Sensor
STC-SC133UVC-BL	60/50/30/20	1.23MP	1/3.2"	NA	ISX017
STC-SC133UVC-BLL	60/50/30/20	1.23MP	1/3.2"	M12	ISX017
STC-SC133UVC-BLCS	60/50/30/20	1.23MP	1/3.2"	CS	ISX017

# Sentech USB 2.0 cameras are ultra small



## USB 2.0 Single Board Models

### Key Features

- Standard USB 2.0 Interface with Lock Connectors
- Available in Cased and Board-Level Model
- Size: 36 x 36 mm
- Available with CS-Mount or Micro Lens Mount
- Includes Viewing Software and SDK
- Triggering Available



### USB 2.0 Models

Monochrome	Color	Frame Rate	Resolution	Sensor size	Sensor
STC-SB33USB	STC-SC33USB	60	0.3 MP	1/3"	ICX424
STC-SB83USB	STC-SC83USB	30	0.8 MP	1/3"	ICX204
STC-SB133USB	STC-SC133USB	23	1.3 MP	1/3"	ICX445

# Sentech HD Output cameras connect directly to your monitor



# HDMI®

HIGH-DEFINITION MULTIMEDIA INTERFACE

## Key Features

- DVI via HDMI or HD-SDI Output
- 720p HD and 1080p HD Color format (60Hz/59.94Hz/50Hz selectable)
- Cased or Board Level Models Available
- On Screen Menu with wired Controller
- Shutter/Gain Control: Auto/Manual
- White Balance Control: Auto/Manual/Push to set
- Gamma, Horizontal Mirror, Line Marker and Shadow Mask can control by the Switch or Communication
- UART Communication



## HD Output Models

Model	Frame Rate	Resolution	Sensor size	Sensor
STC-HD93DV	50/60	720p	1/3"	ICX692AQA
STC-HD93SDI	50/60	720p	1/3"	ICX692AQA
STC-HD203DV	50/60	1080p	1/2.8"	IMX136
STC-HD203SDI	50/60	1080p	1/2.8"	IMX136
STC-HD223	50/60	1080p	1/2.33"	OV14810
STC-HD853HDMI	50/60	4K	1/2.5"	IMX274



# Sentech Auto Focus cameras are low cost and have 720P and 1080P resolutions



## Key Features

- DVI Output via HDMI or KEL Connector, HD-SDI Output
- 720p HD and 1080p HD Color format (60Hz/59.94Hz/50Hz selectable)
- Shutter/Gain control: Auto/Manual
- White balance control: Auto/Manual/Push to set
- Gamma Adjustable
- UART Communication
- Up to 128x digital zoom
- Up to 20x optical zoom



## Auto Focus Models

Model	Frame Rate	Resolution	Sensor size	Sensor	Video Output
STC-AF134DV	50/60	720p	1/4"	IMX104	DVI
STC-AFCM133DV-D	50/60	720p	1/3"	IMX076	DVI
STC-AF243LVD	60	1080p	1/2.8"	IMX136	LVDS
STC-AF243SDI	60	1080p	1/2.8"	IMX136	3G-SDI

# Sentech Camera Link cameras offer the highest system stability



## Hardware

- Camera Link Connector with Lock Down Screws
- Power over Camera Link (PoCL)
- Efficient Heat Dissipation
- Robust Aluminium Housing
- Ultra Compact Size

## Interface Characteristics

- Bandwidth: 6,800 Mbit/s (Deca)
- Max Cable length: 15 m (300 m with fiber cables)
- Extremely High Speed
- Very High System Stability

## Software

- Supports Base, Medium, Full and Deca Configuration
- Multiple ROI 's (Region of Interest)
- Low Light Extended Integration
- Triggering (with Reset and non-Reset) over Camera Link or I/O Connector



# Sentech offers one of the most diverse Camera Link product lines in the market



**NIR Models**

Monochrome	Color	Frame Rate	Resolution	Sensor size	Sensor
STC-CMB33PCL	STC-CMB33PCL	480	0.3 MP	1/3"	CMV300
STC-SPB43PCL	STC-SPC43PCL	523.5	.4MP	1/2.9"	IMX287
STC-SPB163PCL	STC-SPC163PCL	152	1.6MP	1/2.9"	IMX273
STC-CMB200PCL	STC-CMC200PCL	333	2 MP	2/3"	CMV2000
STC-SPB312PCL	STC-SPC312PCL	57	3.2 MP	1/1.8"	IMX265
STC-SPB322PCL	STC-SPC322PCL	216	3.2 MP	1/1.8"	IMX252
STC-CMB401PCL	STC-CMC401PCL	180	4 MP	1"	CMV4000
STC-SPB500PCL	STC-SPC500PCL	35	5 MP	2/3"	IMX264
STC-SPB510PCL	STC-SPC510PCL	163	5 MP	2/3"	IMX250
STC-SPB881PCL	STC-SPC881PCL	21	8.9MP	1"	IMX267
STC-SPB891PCL	STC-SPC891PCL	92	8.9 MP	1"	IMX255
STC-SPB122BPCL	STC-SPC122BPCL	15	12MP	1"	IMX304
STC-SPB123PCL	STC-SPC123PCL	67	12 MP	1.1"	IMX253
STC-CMB120APCL	STC-CMC120APCL	62	12 MP	1.76"	CMV12000

Standard NIR	Frame Rate	Resolution	Sensor Size	Sensor
STC-CMB200PCL-NIR	333	2 MP	2/3"	CMV2000NIR
STC-CMB401PCL-NIR	179	4 MP	1"	CMV4000NIR

# Sentech CoaXPress cameras are cutting edge technology



## Hardware

- 1 or 4 CXP-6 Connectors
- Power over CoaXPress (PoCXP)
- Efficient Heat Dissipation
- Robust Aluminium Housing

## Interface Characteristics

- Bandwidth: 25,000 Mbit/s
- Max Cable length: 45 m
- Extremely High Speed
- Very High System Stability

## Software

- CoaXPress Standard Protocol
- GenICam™ compliant
- Multiple ROI 's (Region of Interest)
- Low Light Extended Integration
- Free Run / Edge Preset Trigger / Pulse Width Trigger / CXP Trigger Packet

## CoaXPress Models

Monochrome	Color	Frame Rate	Resolution	Sensor size	Sensor
STC-CMB401ACXP	STC-CMC401ACXP	142.5	4 MP	1"	CMV4000
STC-CMB120ACXP	STC-CMC120ACXP	180	12 MP	1.76"	CMV12000

With blazing speeds and multiple sizes, Sentech's Line Scan series is ready for your machine vision application.

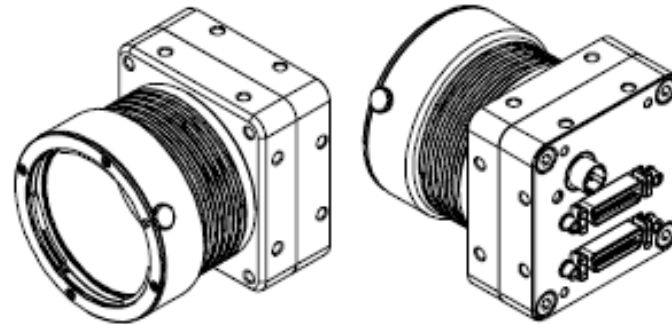


**GIG**<sup>®</sup>  
VISION

**CAMERA**  
**Link**<sup>™</sup>

### Key Features

- Camera Link and GigE Vision interface
- Up to Full Configuration Bandwidth
- Efficient Heat Dissipation
- Robust Aluminium Housing
- Available in Color and Monochrome
- Available in 2K, 4K, 8K and 16K
- Up to 80 kHz
- Available in various Lens Mount



**SENTECH**

# Low Cost GigE Vision and High Speed Camera Link Single or Dual Line Models are available with various mounting options



## Monochrome Models



Model	Pixel	Scan Rate	Mount	Pitch	Interface
FS-B2KU7GE	2K	51 kHz	F Mount	7µm	GigE Vision
FS-B2KU7CLU-C	2K	80 kHz	C Mount	7µm	Camera Link
FS-B2KU7CLU-F	2K	80 kHz	F Mount	7µm	Camera Link
FS-B4KU7GE	4K	26 kHz	F Mount	7µm	GigE Vision
FS-B4KU7CLU-F	4K	80 kHz	F Mount	7µm	Camera Link
FS-B4KU35CLU-C	4K	80 kHz	C Mount	3.5µm	Camera Link
FS-B8KU7CLU-M72	8K	80 kHz	M72 Mount	7µm	Camera Link
FS-B8KU7GE	8K	13 kHz	M72 Mount	7µm	GigE Vision
FS-B8KU35CLU-F	8K	80 kHz	F Mount	3.5µm	Camera Link
FS-B8KU35CLU-M72	8K	80 kHz	M72 Mount	3.5µm	Camera Link
FS-B16KU35CLU-M72	16K	40 kHz	M72 Mount	3.5µm	Camera Link

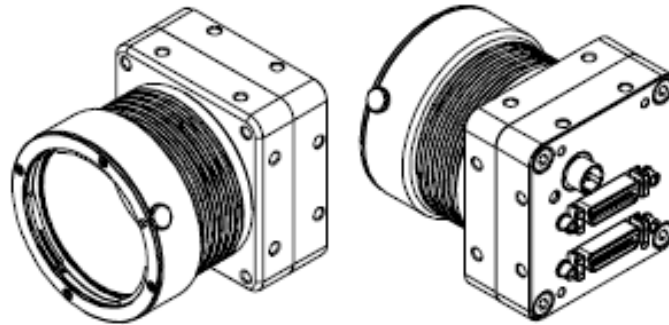
# Sentech Color Dual Line Scan cameras provide resolutions up to 8K



## Color Models



Model	Pixel	Scan Rate	Mount	Pitch
FS-C2KU7DCLU-C	2K	75KHz	C Mount	7 $\mu$ m
FS-C2KU7DCLU-F	2K	75KHz	F Mount	7 $\mu$ m
FS-C4KU7DCLU-F	4K	75KHz	F Mount	7 $\mu$ m
FS-C8KU7DCLU-M72	8K	40KHz	M72 Mount	7 $\mu$ m





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