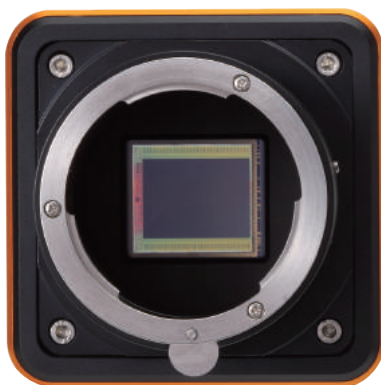


High-Speed, High-Resolution Industrial Camera Technology

Product Line Overview



Contact Information



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GEN<i>CAM



* Visit our website for a list of ISVI Global Sales Partners.

Product Line Overview

PRODUCT	RESOLUTION	SENSOR	FRAME RATE	PIXEL SIZE	LENS MOUNT	INTERFACE	COLOR/MONO
NEW  IC-X125-CXP	4096 X 3072 (12MP)	CMOS	181 fps	5.5um X 5.5um	F-MOUNT / M42 / M58 M72 / LM / Custom		COLOR / MONO
 IC-X15N-CL	3904 X 3904 (15MP)	CMOS	45 fps	4.5um X 4.5um	F-MOUNT / M42 / M58 M72 / LM / Custom		COLOR / MONO
 IC-X25N-CL	5056 X 5056 (25MP)	CMOS	30 fps	4.5um X 4.5um	F-MOUNT / M42 / M58 M72 / LM / Custom		COLOR / MONO
NEW  IC-X25S-CL	5120 X 5120 (25MP)	CMOS	30 fps	4.5um X 4.5um	F-MOUNT / M42 / M58 M72 / LM / Custom		COLOR / MONO
NEW  IC-X25S-CXP	5120 X 5120 (25MP)	CMOS	72 fps	4.5um X 4.5um	F-MOUNT / M42 / M58 M72 / LM / Custom		COLOR / MONO
 IC-M29N-CL	6576 X 4384 (29MP)	CCD	4.5 fps	5.5um X 5.5um	F-MOUNT / M58 M72 / LM / Custom		MONO
NEW  IC-M29S-CL	6576 X 4384 (29MP)	CCD	4.5 fps	5.5um X 5.5um	F-MOUNT / M58 M72 / LM / Custom		MONO

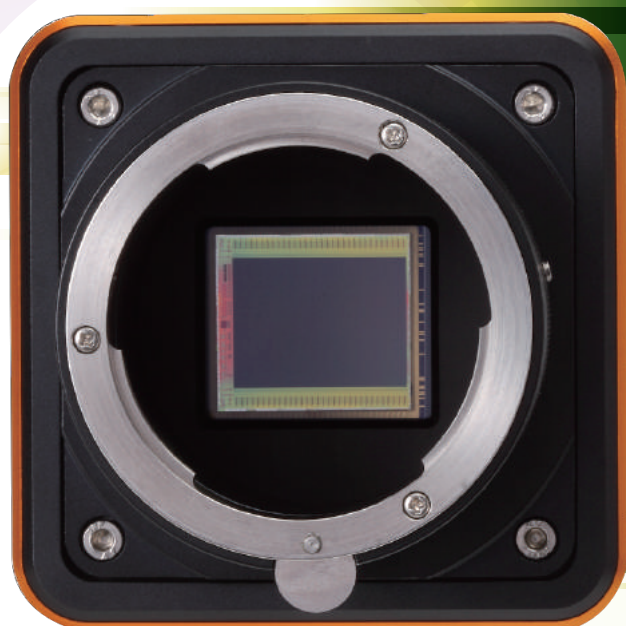
* All specifications subject to change without notice.
Please visit our website for the latest documentation.

High-Speed, High-Resolution Industrial Camera Technology

IC-X12S-CXP

12MP @ 181 FPS

CoaXPress



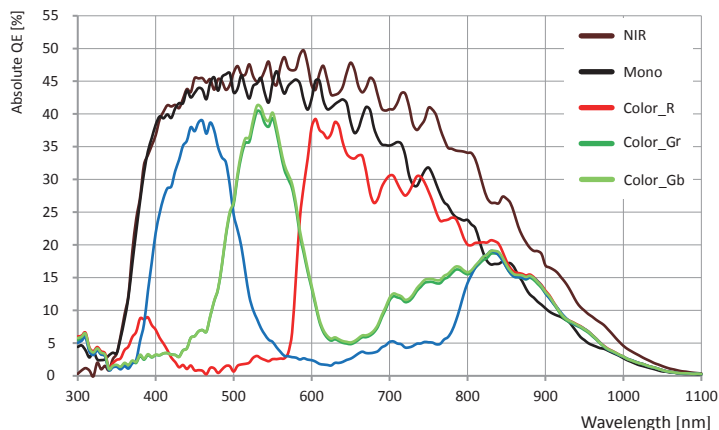
- 12 Mega Pixels @ 181 fps
- Resolution 4096 x 3072
- Global Shutter 1usec~10sec
- DSNU / PRNU / DP Correction (OBP)
- 2 User Area for Calibrations Storage
- CXP-6, Four (4) Channel
- True 8 Bit Data Output
- Exposure / Strobe Delay
- GenICam, PoCXP Support
- F / M42 / M58 / M72 / LM-Mount

Specifications

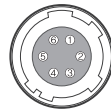
Sensor	High Speed CMOS Image Sensor - CMOSIS CMV12000
Resolution	4096(H) x 3072(V) Active Pixels
Pixel Size	5.5µm(H) x 5.5µm(V)
Frame Rate	181Hz @ 8bit CXP-6 4CH
Active Area Size	Diameter 28.14mm, 22.5mm(H) x 16.9mm(V)
Output Format	8-bit Monochrome, Bayer Color & Ext. NIR
CoaXPress Interface	CXP-3, CXP-6 : 1, 2 and 4 Links, GenICam XML
Dynamic Range	60dB
Full Well Capacity	13500 e ⁻
SNR	> 50dB
Sensitivity	4.64 V/lux.s (with microlenses)
Exposure Mode	Continuous, Trigger Master, Trigger Width
Exposure Control	Programmable from 1 µsec to 10 sec in 1 µsec steps
Trigger Control	Programmable Period in 1 µsec steps, External PWC
Analog Control	Analog Gain, Black Offset
Digital Control	Digital Gain, Gamma
Image Control	Auto & Man. Defect Pixel Correction
Special Functions	Programmable Exposure & Strobe Delay Programmable Region of Interest User PRNU Calibration
Lens Mounts	F-Mount, M42, M58, M72, LM(Leica M), Custom OEM
Operating Temperature	0°C ~ 40°C, ext. temp. possible with reduced performance
Storage Temperature	-10°C ~ 70°C
Relative Humidity	20% - 90% non-condensing
Shock / Vibration	25G (Half sine 6-10ms XYZ) / 10G (5-150Hz, 1min, XYZ)
MTBF	> 78,000 hrs
Power Requirements	24VDC ± 10%, 18W, ≤ 50mV Ripple
Power over CXP	PoCXP: 24VDC @ 18W, min. required CXP Links = 2 ch (CXP1,2)
Dimensions (H x W x L)	80mm x 80mm x 36.55mm without lens mount and connectors
Weight	400g (without lens mount), 540g (include F-Mount)
Compliance	CoaXPress 1.0, GenICam SFNC, RoHS, CE, FCC

* All specifications subject to change without notice.

Spectral Response



Connector



Power Connector

PIN No.	I/O	Signal Name
1, 2, 3	VCC	+24VDC
4, 5, 6	GND	Ground

◆Connector: Hirose HR10A-7R-6S ◆Mating Connector: Hirose HR10A-7P-6P



Control Connector

PIN No.	I/O	Signal Name	PIN No.	I/O	Signal Name
1	Input	+Trigger	3	Output	+Strobe
2	Input	-Trigger	5	GND	Ground

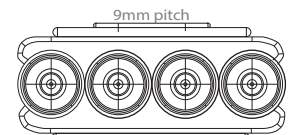
4, 6 - 12	Reserved - Do Not Connect
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◆Connector: Hirose HR10A-10R-12S ◆Mating Connector: Hirose HR10A-10P-12P

CoaXPress Connector

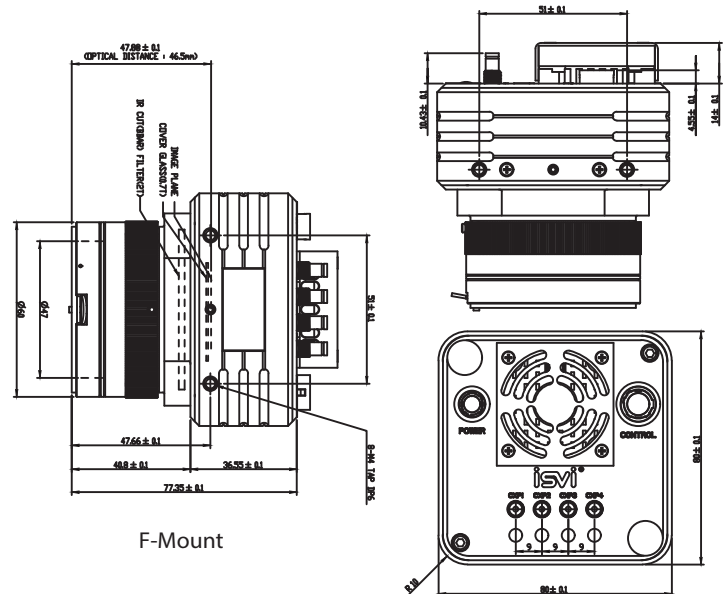


Mating Connector 75Ω DIN 1.0/2.3 Type
IEC 61169-29 Standard male type (plug)



4-Multi-Connector Compatible

Dimensions



Ordering

IC-X12S-CXP-XXX

M = Monochrome
N = Ext. NIR
C = Color Bayer CFA

Chroma

FM = F Mount
42 = M42x1.0
58 = M58x0.75
72 = M72x0.75
LM = Leica - M

Lens Mount**

B = BBAR*
I = IR Cut*
N = None

Filter**

- * Monochrome standard with BBAR filter
Color Bayer standard with IR Cut filter
- ** Custom OEM available

High-Speed, High-Resolution Industrial Camera Technology

IC-X15N-CL

15MP @ 45 FPS



- 15 Mega Pixels @ 45 fps
- Resolution 3904 x 3904
- Global Shutter 1usec~10sec
- Color & Monochrome
- True 8/10 Bit Data Output
- 2/4/8/10 Tap Configuration
- High Temperature Protection
- F / M42 / M58 / M72 / LM-Mount

Specifications

Sensor	15 Mega Pixel Color & Monochrome CMOS Sensor (Global Shutter)
Resolution	3904 x 3904
Pixel Size	4.5μm x 4.5μm
Frame Rate	45 fps at 10 Tap Full Mode 80MHz (37 fps at 8 TAP)
Sensor Size	Diameter 0.98 inch (25mm), 17.6mm(H) x 17.6mm(V)
Video Output	8/10 bit Bayer Color & Monochrome
Camera Link Configuration	2/4 Tap Camera Link 1ch Base & 2ch Medium Mode
	8/10 Tap Camera Link 2ch Full Mode
Sensitivity	1.0 Lux (On Sensor, Max, Gain, Shutter Off, 50 % Video)
S/N Ratio	> 42 dB
Dynamic Range	53 dB
Gamma/Knee	Fixed 0.45 or 256 Point LUT
Shutter Speed	1μs ~ 10sec
Lens Mount	F-Mount, M42, M58, M72, LM(Leica M), Custom OEM
Operating Temperature	Operating 0℃ ~ 40℃, Storage 0℃ ~ 70℃
Humidity	20% ~ 90% RH
External Power Supply Voltage	12 VDC ± 10%, 12W
Dimensions	82mm (L) x 82mm (W) x 83.7mm (H)
Weight	520g (include F-Mount)
Shock & Vibration	Shock 25G (Half Sine 6~10ms XYZ Axis) / Vibration 10G (5~150Hz 1minute XYZ Axis)
White Balance	Color Model Only, Auto & Manual Preset (3200K, 4600K, 5600K)

* All specifications subject to change without notice.

Connector

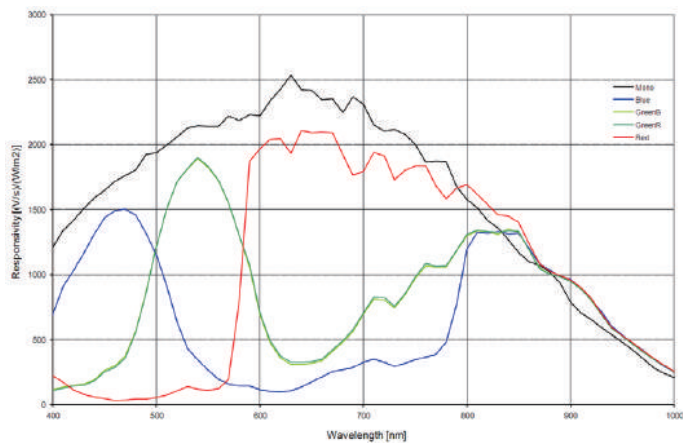
Power			
Pin No.	I/O	Signal Name	
1	DC	+12V	
2	DC	+12V	
3	DC	+12V	
4	GND	GROUND	
5	GND	GROUND	
6	GND	GROUND	

Mating Connector : Female (part#HR10A-7P-6S)

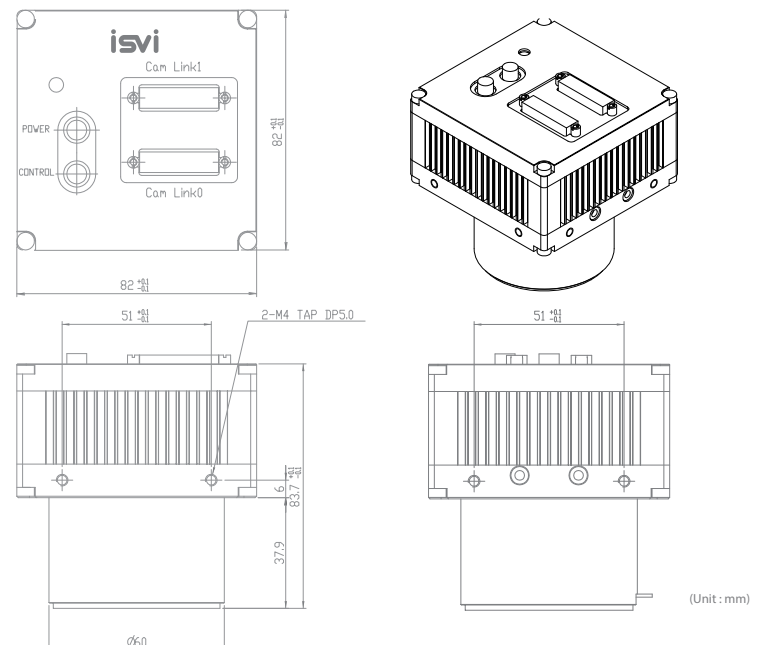
Control			
Pin No.	I/O	Signal Name	
1	INPUT	TRIGGER +	
2	INPUT	TRIGGER -	
3	GND	GROUND	
4	OUTPUT	STROBE OUTPUT	

Mating Connector : Male (part#HR10A-7P-4P)

Spectral Response



Dimensions (F-Mount)



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High-Speed, High-Resolution Industrial Camera Technology

IC-X25N-CL

25MP @ 30 FPS



Shutter 1 μ sec ~ 10sec



- 25 Mega Pixels @ 30 fps
- Resolution 5056 x 5056
- Global Shutter 1 μ sec ~ 10sec
- Color & Monochrome
- True 8/10 Bit Data Output
- 2/4/8/10 Tap Configuration
- High Temperature Protection
- F / M42 / M58 / M72 / LM-Mount

Specifications

Sensor	25 Mega Pixel Color & Monochrome CMOS Sensor (Global Shutter)
Resolution	5056 x 5056
Pixel Size	4.5μm x 4.5μm
Frame Rate	30 fps at 10 Tap Full Mode 80MHz (24 fps at 8 TAP)
Video Output	8/10 bit Bayer Color & Monochrome
Camera Link Configuration	2/4 Tap Camera Link 1ch Base & 2ch Medium Mode, 8/10 Tap Camera Link 2ch Full Mode
Sensor Size	Diameter 32mm, 22.8mm(H) x 22.8mm(V)
Sensitivity	1.0 Lux (On Sensor, Max, Gain, Shutter Off, 50% Video)
S/N Ratio	> 42 dB
Dynamic Range	53 dB
Gamma/Knee	Fixed 0.45 or 256 Point LUT
Shutter Speed	1μs - 10sec
Lens Mount	F-Mount, M42, M58, M72, LM(Leica M), Custom OEM
Operating Temperature	Operating 0℃ ~ 40℃, Storage 0℃ ~ 70℃
Humidity	20% ~ 90% RH
External Power Supply Voltage	12 VDC ± 10%, 12W
Dimensions	82mm (L) x 82mm (W) x 83.7mm (H)
Weight	520g (include F-Mount)
Shock & Vibration	Shock 25G (Half Sine 6~10ms XYZ Axis) / Vibration 10G (5~150Hz 1minute XYZ Axis)
White Balance	Color Model Only, Auto & Manual Preset (3200K, 4600K, 5600K)

* All specifications subject to change without notice.

Connector

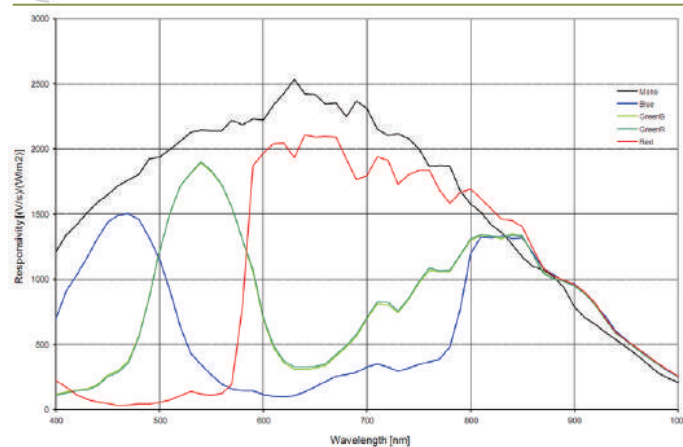
Power			
Pin No.	I/O	Signal Name	
1	DC	+12V	
2	DC	+12V	
3	DC	+12V	
4	GND	GROUND	
5	GND	GROUND	
6	GND	GROUND	

Mating Connector : Female (part#HR10A-7P-6S)

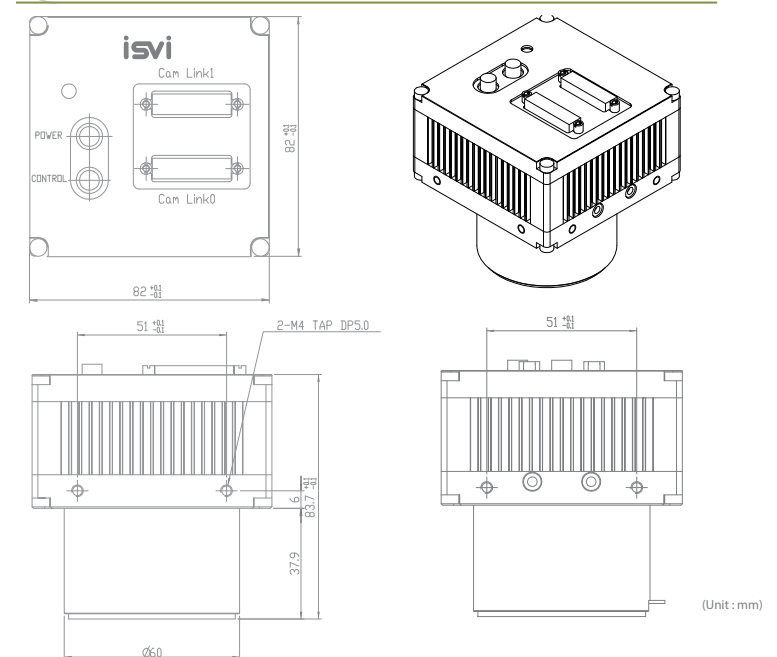
Control			
Pin No.	I/O	Signal Name	
1	INPUT	TRIGGER +	
2	INPUT	TRIGGER -	
3	GND	GROUND	
4	OUTPUT	STROBE OUTPUT	

Mating Connector : Male (part#HR10A-7P-4P)

Spectral Response



Dimensions (F-Mount)



(Unit : mm)

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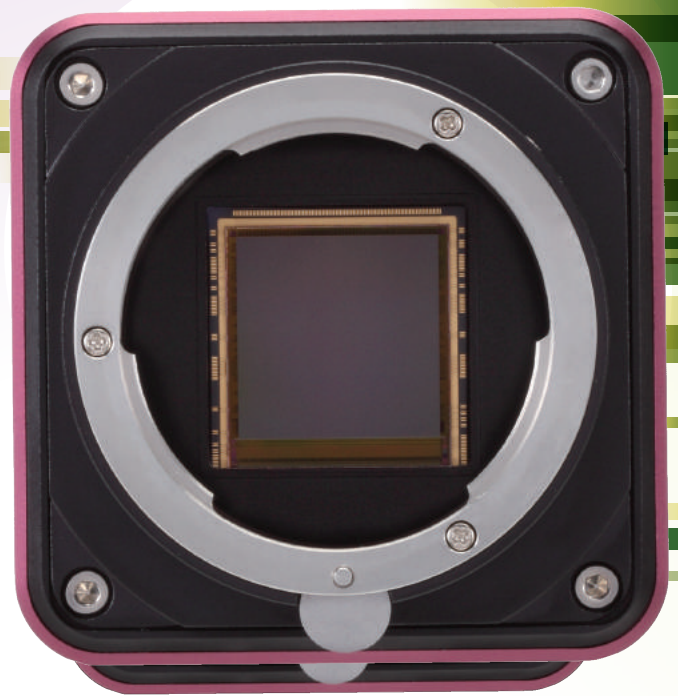
www.isvi-corp.com

isvi

High-Speed, High-Resolution Industrial Camera Technology

IC-X25S-CL

25MP @ 30 FPS



- 25 Mega Pixels @ 30 fps
- Resolution 5120 x 5120
- Global Shutter 1usec~10sec
- Optimized PRNU / DP Correction (OBP)
- True 8 Bit Data Output
- 10 Tap Full Configuration
- F / M42 / M58 / M72 / LM-Mount
- Compact Size - 75 x 75 x 43.4mm

Sensor	25 Mega Pixel Monochrome CMOS Sensor (Global Shutter)
Resolution	5120 x 5120
Pixel Size	4.5μm x 4.5μm
Frame Rate	30 fps at 10 Tap Full Mode 80MHz
Video Output	8 Bit Data Output
Camera Link Configuration	10 Tap 2ch Camera Link Full Configuration
Sensor Size	Diameter 35mm, 23.04mm(H) x 23.04mm(V)
Sensitivity	18.16 DN/nJ/cm ²
S/N Ratio	> 42 dB
Dynamic Range	53 dB
Gamma/Knee	Fixed 0.45 or 256 Point LUT
Shutter Speed	1μsec - 10sec, 1μsec step
Lens Mount	F-Mount, M72, M58, LM(Leica M), Custom OEM
Operating Temperature	Operating 0℃ ~ 40℃, Storage 0℃ ~ 70℃
Humidity	20% ~ 90% Non-Condensing
External Power Supply Voltage	12 VDC ± 10%, 12W
Dimensions	75mm (L) x 75mm (W) x 43.4mm (H)
Weight	Approx. 460g (without Lens Mount)
Image Control	PRNU, DP Correction
Special Function	Programmeable Exposure & Strobe Delay, ROI

* All specifications subject to change without notice.

Connector

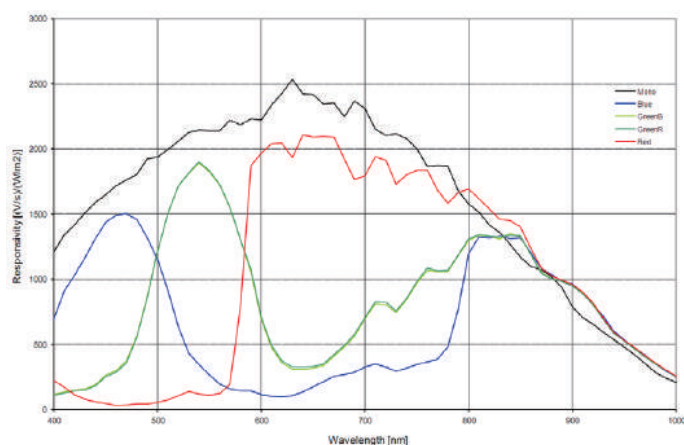
Power			
Pin No.	I/O	Signal Name	
1	DC	+12V	
2	DC	+12V	
3	DC	+12V	
4	GND	GROUND	
5	GND	GROUND	
6	GND	GROUND	

Mating Connector : Female (part#HR10A-7P-6S)

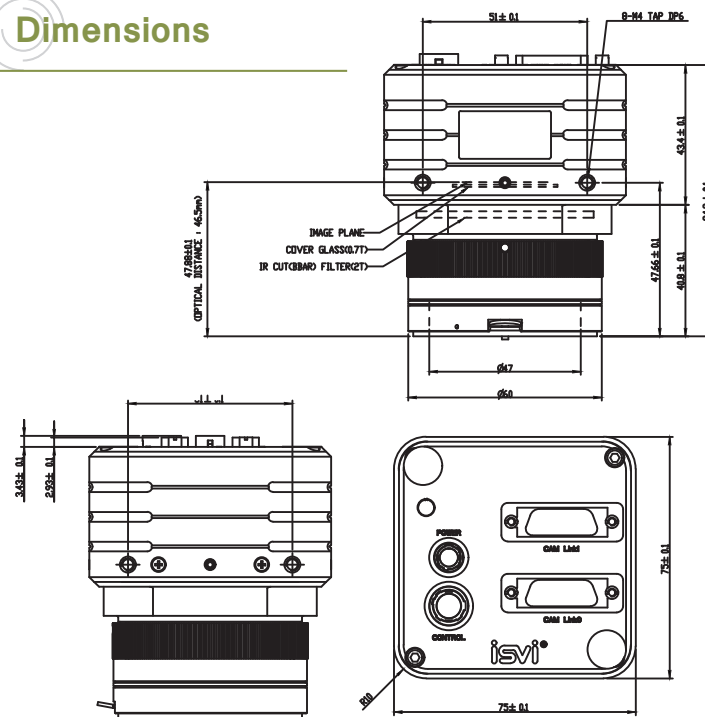
Control			
Pin No.	I/O	Signal Name	
1	INPUT	TRIGGER +	
2	INPUT	TRIGGER -	
3	OUTPUT	STROBE +	
5	GND	GROUND	

Mating Connector: Hirose HR10A-10P-12P

Spectral Response



Dimensions



High-Speed, High-Resolution Industrial Camera Technology

IC-X25S-CXP

25MP @ 72 FPS

CoaXPress



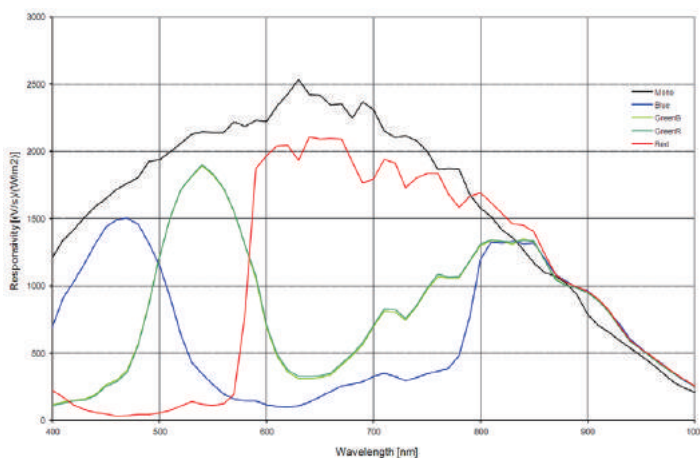
- 25 Mega Pixels @ 72 fps
- Resolution 5120 x 5120
- Global Shutter 1usec~10sec
- PRNU / DP Correction (OBP)
- 2 User Area for Calibration Storage
- CXP-6, Four (4) Channel
- True 8/10 Bit Data Output
- Exposure / Strobe Delay
- GenICam, PoCXP Support
- F / M42 / M58 / M72 / LM-Mount

Specifications

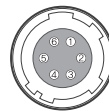
Sensor	High Speed CMOS Image Sensor - ONSEMI VITA25K
Resolution	5120(H) x 5120(V) Active Pixels
Pixel Size	4.5μm(H) x 4.5μm(V)
Frame Rate	72.7Hz @ 8Bit CXP-6 4CH (13,755 μsec)
Active Area Size	Diameter 35mm, 23.04mm(H) x 23.04mm(V)
Output Format	8 & 10Bit, Monochrome & Bayer Color (RGGB), Ext. NIR
CoaXPress Interface	CXP-3, CXP-6 : 1, 2 and 4 Links, GenICam XML
Dynamic Range	56.2dB
Full Well Capacity	22000 e ⁻
SNR	43.4dB
Sensitivity	18 LSB10 / nJ/cm ² , 3.4 V/lux.s (550 nm)
Exposure Mode	Continuous, Trigger Timed, Trigger Width
Exposure Control	Programmable from 1 μsec to 10 sec in 1 μsec steps
Trigger Control	Programmable Period in 1 μsec steps, External PWC
Analog Control	Analog Gain, Black Offset
Digital Control	Digital Gain, Gamma
Image Control	Auto & Man. Defect Pixel Correction
Special Functions	Programmable Exposure & Strobe Delay Programmable Region of Interest (H & V) User PRNU Calibration
Lens Mounts	F-Mount, M42, M58, M72, LM(Leica M), Custom OEM
Operating Temperature	0°C ~ 40°C, ext. temp. possible with reduced performance
Storage Temperature	-10°C ~ 70°C
Relative Humidity	20% ~ 90% non-condensing
Shock / Vibration	25G (Half sine 6-10ms XYZ) / 10G (5-150Hz, 1min, XYZ)
Power Requirements	24VDC ± 10%, 18W, ≤ 50mV Ripple
Power over CXP	PoCXP : 24VDC @ 18W, min. required CXP Links = 2 ch (CXP1,2)
Dimensions (H x W x L)	80mm x 80mm x 36.55mm without lens mount and connectors
Weight	400g (without lens mount), 540g (include F-Mount)
Compliance	CoaXPress 1.0, GenICam SFNC, RoHS, CE, FCC

* All specifications subject to change without notice.

Spectral Response



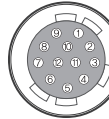
Connector



Power Connector

PIN No.	I/O	Signal Name
1, 2, 3	VCC	+24VDC
4, 5, 6	GND	Ground

◀Connector: Hirose HR10A-7R-6S ▶Mating Connector: Hirose HR10A-7P-6P

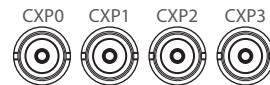


Control Connector

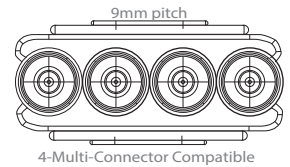
PIN No.	I/O	Signal Name	PIN No.	I/O	Signal Name
1	Input	+Trigger	3	Output	+Strobe
2	Input	-Trigger	5	GND	Ground
4, 6 - 12	Reserved	Do Not Connect			

◀Connector: Hirose HR10A-10R-12S ▶Mating Connector: Hirose HR10A-10P-12P

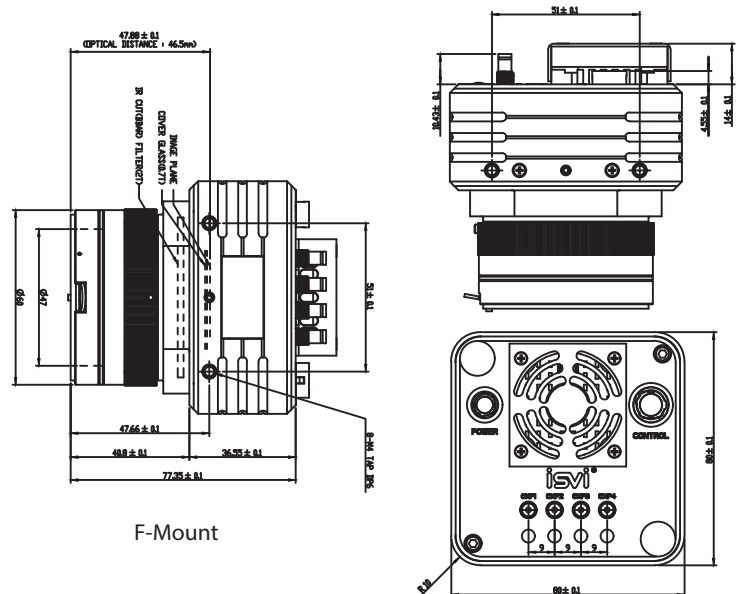
CoaXPress Connector



Mating Connector 75Ω DIN 1.0/2.3 Type
IEC 61169-29 Standard male type (plug)



Dimensions



Ordering

IC - X25S - CXP - X X X

M = Monochrome
N = Ext. NIR
C = Color Bayer CFA
Chroma

FM = F Mount
42 = M42x1.0
58 = M58x0.75
72 = M72x0.75
LM = Leica - M
Lens Mount**

B = BBAR*
I = IR Cut*
N = None
Filter**

* Monochrome standard with BBAR filter
Color Bayer standard with IR Cut filter
** Custom OEM available

High-Speed, High-Resolution Industrial Camera Technology

IC-M29N-CL
(Previous IC-M29)

IC-M29S-CL
(NEW Compact "S" Model)

29MP @ 4.5 FPS, CCD



- 29 Mega Pixel CCD Sensor
- Resolution 6576 x 4384
- High S/N Ratio Over 55 dB
- Flat Field Correction
- Dead Pixel Correction
- True 8/10/12 Bit Data Output
- High Sensitivity 34 $\mu\text{V/e-}$
- High Dynamic Range 64 dB
- F / M58 / M72 / LM-Mount
- 75mm x 75mm Compact Size

Specifications

Sensor	29 Mega Pixel Monochrome CCD Sensor (Global Shutter)
Resolution	6576 x 4384
Pixel Size	5.5μm x 5.5μm
Frame Rate	4.5 fps @ 2 Tap Base
Sensor Size	Diameter 43.47mm, 35mm
Video Output	8 bit / 10 bit / 12 bit, Monochrome
Output Format	Camera Link 2 Tap Base
Sensitivity	34 uV/e-
S/N Ratio	> 55 dB
Dynamic Range	64 dB
Gamma/Knee	Fixed 0.45 or 4096 Point LUT
Full Well Capacity	20000 e-
Shutter Speed	> 100μs
Lens Mount	F-Mount, M58, M72, LM(Leica M), Custom OEM
Exposure Control	Programmable from 100us to 7sec in 100us step
External Power Supply Voltage	12 VDC ± 10%, 15W
Dimensions	IC-M29N-CL - 97mm (L) x 97mm (W) x 48mm (H) / IC-M29S-CL - 75mm (L) x 75mm (W) x 43.4mm (H)
Weight	IC-M29N-CL - 860g / IC-M29S-CL - 460g (without lens mount)
Image Control	Flat Field Correction, Dead Pixel Correction, Programmable Region of Interest
Temperature	Operating 0℃ ~ 40℃, Storage 0℃ ~ 70℃

* All specifications subject to change without notice.

Connector

Power			
Pin No.	I/O	Signal Name	
1	DC	+12V	
2	DC	+12V	
3	DC	+12V	
4	GND	GROUND	
5	GND	GROUND	
6	GND	GROUND	

Mating Connector : Female (part#HR10A-7P-6S)

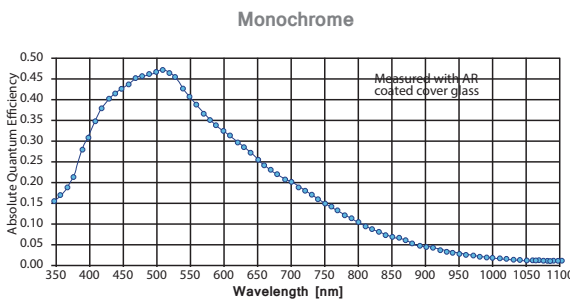
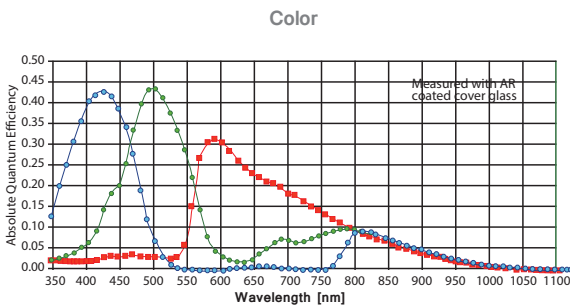


Control						
Pin No.	I/O	Signal Name	Pin No.	I/O	Signal Name	
1	INPUT	TRIGGER +	7	OUTPUT	RESERVED	
2	INPUT	GROUND	8	INPUT	RESERVED	
3	OUTPUT	STROBE OUTPUT	9	INPUT	RESERVED	
4	INPUT	RESERVED	10	OUTPUT	RESERVED	
5	GND	GROUND	11	INPUT	RESERVED	
6	INPUT	RESERVED	12	INPUT	RESERVED	

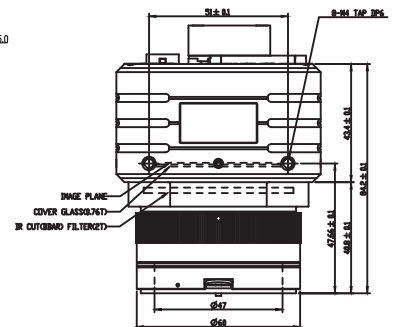
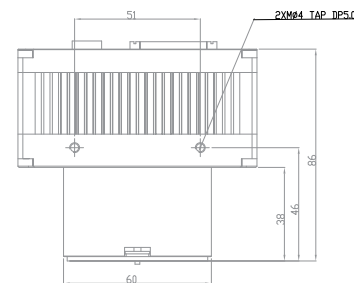
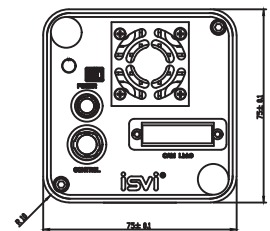
Mating Connector : Male (part#HR10A-10P-12P)

Mating Connector : Male (part#HR10A-10P-12P)

Spectral Response



Dimensions (F-Mount)



IC-M29N-CL(Previous IC-M29)

IC-M29S-CL(NEW Compact "S" Model)

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