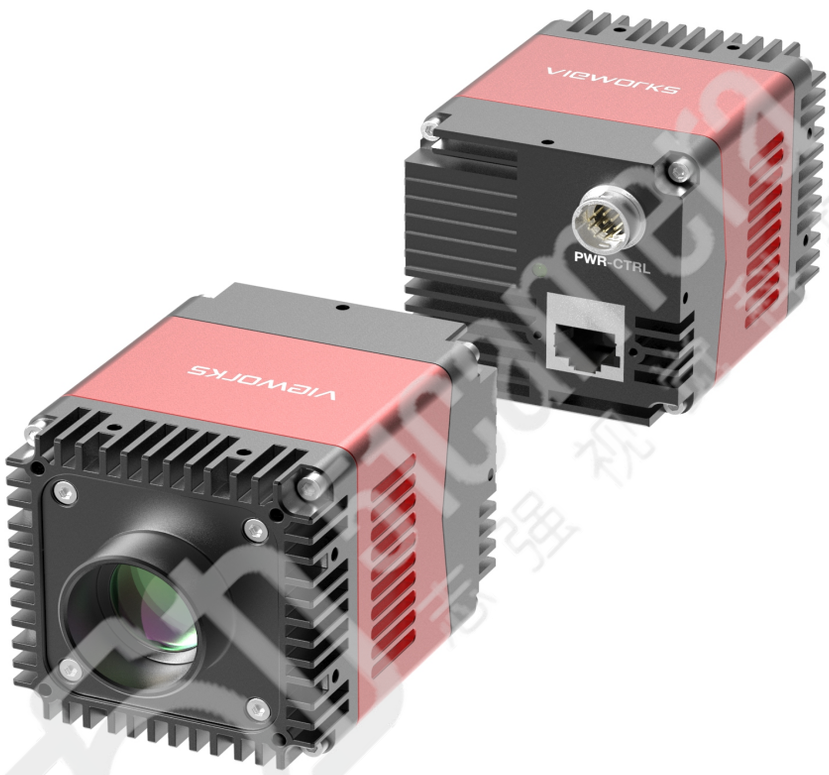
Preliminary

VZ-1300G-M90H00-SWIR

1.3MP CMOS GigE SWIR Area Scan Camera



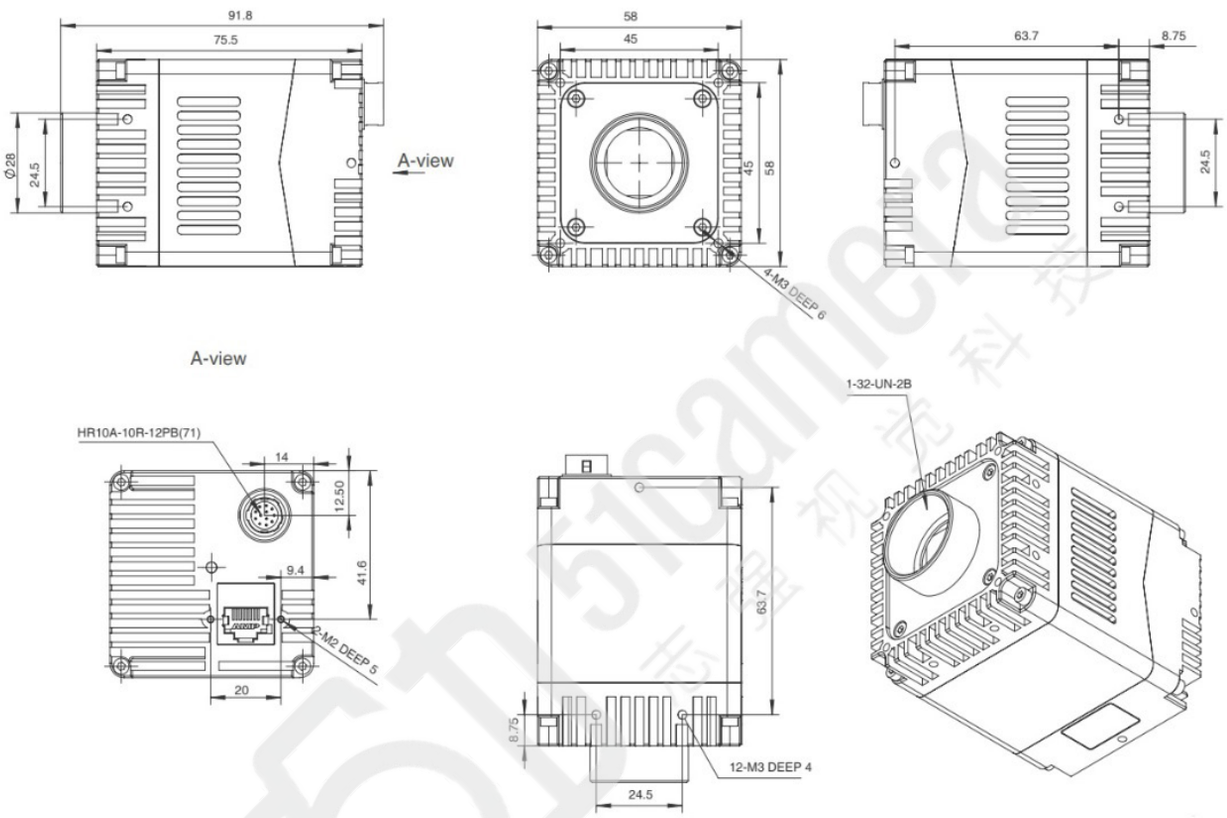
VZ-1600G-M90H00-SWIR is a SWIR (Short-Wave Infrared) camera. Equipped with the Sony IMX990 sensor using SenSWIR technology, the camera can capture wide band image information ranging from 400nm to 1700nm. VZ-1600G-M90H00-SWIR can replace the traditional "Visible light camera + SWIR camera" dual camera detection scheme. The wide spectral band is suitable for multispectral applications, while the high frame rate of the camera is very suitable for semiconductor inspection applications.

VZ-1300G-M90H00-SWIR

1.3MP CMOS GigE SWIR Area Scan Camera

Mechanical Dimensions

Unit: mm



41-3, Burim-ro 170 beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14055 Republic of Korea

Tel +82-70-7011-6161 **Fax** +82-31-386-8631 **E-mail** vision@vieworks.com **Web** vision.vieworks.com

VZ-1300G-M90H00-SWIR

1.3MP CMOS GigE SWIR Area Scan Camera

Main Features

- Acquisition Burst Mode
- Stamp, ROI, Binning, Decimation, Reverse X/Y, Sequencer Control
- Timer, Counter, LUT, User Set Control
- Gamma, Black Level, Digital Shift
- Static Defect Correction, Fixed Pattern Noise Correction, Sharpness, Noise Reduction
- Flat Field Correction(FFC), DSNU Control, PRNU Control
- Remove Parameter Limit

Applications

- Industrial Inspection
- Medical Research
- Scientific Research
- Education
- Security

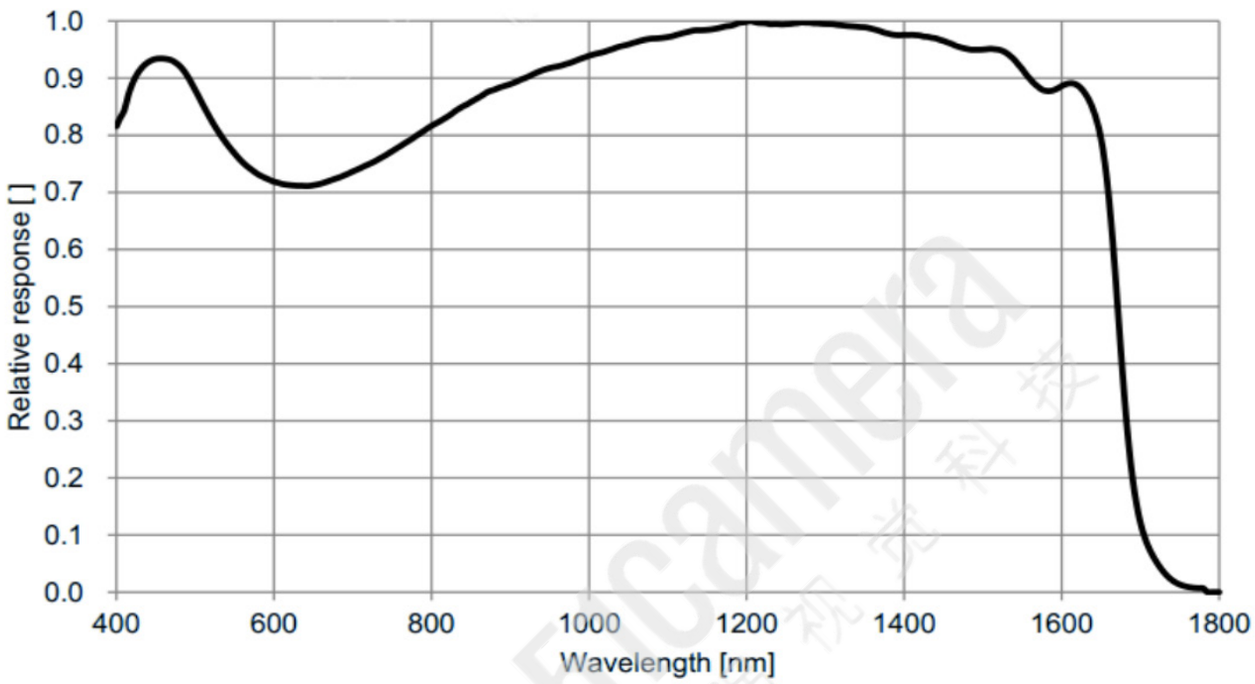
Specifcations

Model	VZ-1300G-M90H00-SWIR
Resolution (H x V)	1280 x 1024
Sensor	Sony IMX990 Global shutter CMOS
Sensor Format	1/2"
Mono/Color	Mono, SWIR
Pixel Size	5 μm × 5 μm
Data Interface	Fast Ethernet (100 Mbit/s) or Gigabit Ethernet (1000 Mbit/s)
Frame Rate	89.7fps (Under acquisition burst high speed mode, acquisition frame rate up to 134fps at sensor bit depth BPP8
ADC	8 bit, 10 bit, 12 bit
Pixel Bit Depth	8 bit, 10 bit, 12 bit
Exposure Time	Ultrashort: 3μs to100μs, Actual Steps: 1μs Standard: 13μs to 1s, Actual Steps: 1 row period
Gain	0dB ~ 24dB, Default: 0dB, Steps: 0.1dB
Binning	1×1, 1×2, 2×1, 2×2
Pixel Formats	Mono8 / Mono10 / Mono12 / Mono10 Packed / Mono12 Packed
Signal Noise Ratio	50.4 dB
Synchronization	Hardware trigger and Software trigger
I/O	1 input and 1 output with opto-isolated, 1 programmable GPIO
Temperature	Operating: 0℃ to 45℃, Storage: -20℃ to 70℃
Operating Humidity	10% to 80%
Power Supply	12VDC-10% to 24VDC+10% supplied via the camera's Hirose connector or PoE (Power over Ethernet, IEEE802.3af compliant)
Power Consumption	13W @ Max. cooling
Cooling Method	Thermoelectric Cooling (TEC)
Cooling Temperature	Typ.: 15° C±0.5° C below ambient temp.@room temp.
Lens Mount	C
Dimensions and Weight	58㎜(W) x 58㎜(H) x 75.5㎜(L), 407g
OS	32bit / 64bit Windows
Conformity	CE, RoHS, GenICam®, GigE Vision®

VZ-1300G-M90H00-SWIR

1.3MP CMOS GigE SWIR Area Scan Camera

Spectral Response



Ordering Scheme

VZ – 1300G – M90H00 SWIR

Series
VZ Series

Resolution and Interface
Resolution – 1280 x 1024
G – Gigabit Ethernet

SWIR
Short Wave Infrared

Mono / Color
M – Mono

Frame Rate
90 – 90fps

Sensor
H – High Speed CMOS Sensor

Connector Specification

Power/Control

1: Line0+	Opto-isolated input+
2: Ground	PWR GND & GPIO GND
3: Line0-	Opto-isolated input-
4: POWER_IN	Camera external power (+12 VDC ~ +24 VDC)
5: Line2	GPIO input/output
6: RS232 Rx	RS232 receive*
7: Line1-	Opto-isolated input-
8: Line1+	Opto-isolated input+
9: GND	PWR GND & GPIO GND
10: GND	PWR GND & GPIO GND
11: POWER_IN	Camera external power (+12 VDC ~ +24 VDC)
12: RS232 Rx	RS232 tramsmit*

1) The polarity of GPIO pins and power cannot be reversed, otherwise, the camera or other peripherals could be burnt out.
2) This model has high power consumption and both pairs of power and ground must be fully connected to the external power.
3) *Available for some models

Connectors on camera body