EIZO **carina**

Ultra-High Sensitivity HD Zoom Camera
SSZ-9700

Model: SSZ-9700

The SSZ-9700 is an ultra-high sensitivity video camera with a built-in 35x optical zoom lens that covers a focal length range of 6.5 to 230 mm and a 2.12 megapixel, 1/1.8 inch CMOS sensor. It is useful in a range of fields and applications where clear images are required, including low-lit environments, such as river ports, for natural disaster monitoring, law enforcement, and surveillance of locations of interest.

- **Color imaging with high sensitivity under dim lighting conditions as low as 0.004 lx**
- **Unique 2D/3D noise reduction for optimal SN ratio even at high gain settings**
- **Combines a 35x optical zoom lens and 10x digital zoom to achieve a maximum zoom ratio of up to 350x**
  (f=10500 mm in 35 mm equivalent)
 *When using digital zoom, resolution is lowered.*
- **Equipped with one push auto focus and continuous focus**
- **Clear image capture under hazy conditions with Defog functions**
- **HDR function for clear capture of significantly varying brightness conditions**
- **3G-SDI and HDMI connections with simultaneous output**
- **Smooth integration with advanced surveillance systems using RS-485 communication**
- **Low power consumption**
- **Compact size and light weight allows easy installation into small form housing**
- **Developed and manufactured in-house for long-term reliability**
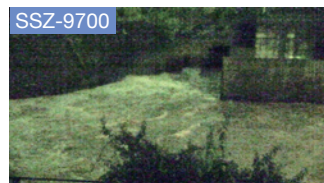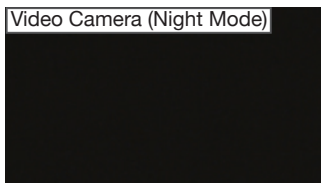
See a demo video

35x Optical Zoom + up to 10x Digital Zoom

Below: Building 4.6 km in the distance

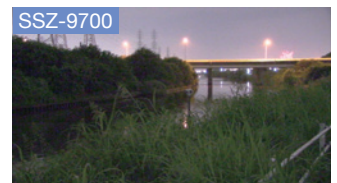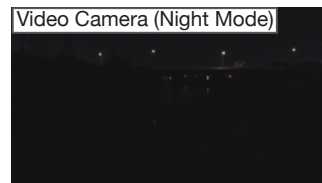Optical Zoom → 35x → Digital Zoom → +4x → Digital Zoom → +10x
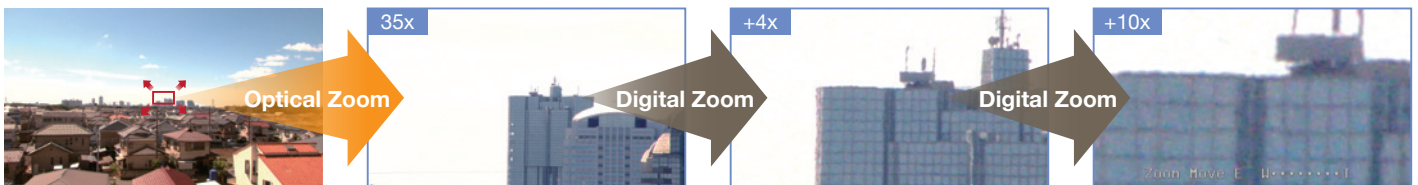
High-Sensitivity Color Capture in Low-Lit Environments

Below: Dam Water Level Surveillance   Time: After Sunset / Weather: Cloudy

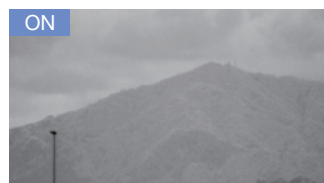Video Camera (Night Mode)   SSZ-9700

Below: Riverside Surveillance   Time: After Sunset / Weather: Cloudy

Video Camera (Night Mode)   SSZ-9700

Optical Defog

Optical Defog increases visibility by capturing images in the infrared region so objects become more discernible to the human eye.

OFF   ON

Images are displayed in monochrome when using Optical Defog.
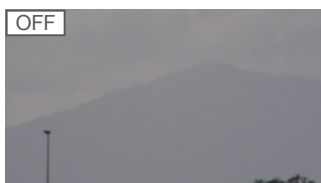
Digital Defog

Digital Defog stretches the contrast using image signal processing to adjust the difference in brightness and color for increased clarity of faint images.

OFF   ON

Specifications

Lens Unit

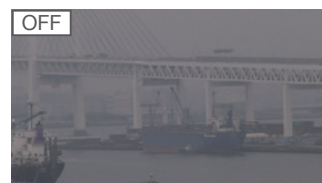|	
Zoom Ratio	35x (with digital zoom On: up to 350x)
Focal Length	6.5 - 230 mm
Angle of View (H x V) [16:9]	Wide: 60.4° x 35.9° Tele: 2.0° x 1.2°
Aperture Range	F1.5 to F22
Optical Filter	IR cut-off filter / Dummy filter / Defog filter
Zoom / Focus / Aperture Control	Stepper motor
Focus Range	5m to ∞
Focus System	Auto Focus, One Push Auto Focus, Manual

Camera Unit

Imaging Sensor		Single Panel CMOS/RGB Bayer Array
Total Pixels		Approx. 2.27 million pixels 2016(H) x 1128(V)
Effective Pixels		Approx. 2.12 million pixels 1936(H) x 1096(V)
Pixel Size		4.1(H) x 4.1(V) µm
Optical Size		1/1.8 inch
Sensor Framerate		59.94 fps (29.97 fps when in HDR mode)
Scanning System		Progressive
Minimum Illumination		0.004 lx (F1.5 1/30 s, 50 IRE, +78 dB)
Horizontal Resolution		900 TV lines or more
SN Ratio		50 dB or above (γ=1, Contour Correction OFF, DNR OFF)
Image Quality Adjustment	**Exposure Mode**	Full Auto / Shut. Prio. / Gain Prio. / Iris Prio. / Manual
	Gain	Manual : 0 dB - 78 dB (0.3 dB step)
	Electronic Shutter	1/1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000,1/10000 s [60 Hz system] 1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 s [50 Hz system]
	Iris	F1.5 to F22
	ALC Adjustment	Level adjustment / Limits adjustment
	Backlight Correction	On / Off / Spot
	Gamma Correction	0.35 - 0.55 (0.01 step) / 1.0
	DNR	Off / Low / High
	White Balance	ATW1 / ATW2 / AWC / Manual
	HDR Mode	Off / HDR / Auto Knee / Auto Black Stretch
	Defog	Off / Opt.Defog / E-Low / E-Mid / E-High
	Color Matrix	R / G / B / Ye / Cy / Mg 6-axis adjustment
	Others	Detail / Chroma / Black Level
Digital Zoom		1-10x (in tandem with optical zoom, Off / Max. x4 / Max. x10)
Image Reversal		Mirror / Flip / Mirror Flip
Privacy Mask		8 masks Gray / White / Black
Test Pattern		Color Bar, Grayscale, Built-in Cross Line

Interface

Image Output Terminal		3G-SDI (BNC) x1 HDMI (Type A) x1
Serial Port		RS-485
Video Output	**3G-SDI, HDMI**	1080p/59.94 (LEVEL A), 1080i/59.94, 1080p/29.97, 1080p/50.00 (LEVEL A), 1080i/50.00, 1080p/25.00

Other

Power Supply	DC 12 V ±10% (Ripple 50mVp-p or less)
Power Consumption	11 W
Operating Temperature / Humidity Range	-10 - 50℃ / 10 - 90%
Storage Temperature / Humidity Range	-10 - 60℃ / 10 - 90%
Dimensions	95 (W) x 95(H) x 165(D) mm excluding protrusions
Weight	1.5 kg

Included

- Camera Unit
- User Manual

Warranty

- 2 Years (24-hour use)

2 Year / 24 Hr

Name of Parts

Securing Hole
Arrow Buttons   MENU Button
HDMI Output Terminal
3G-SDI Output Terminal
Tripod Socket
RESET Button
Power Indicator
RS-485 Terminal Switch   RS-485   DC 12 V Connection Terminal Block

Dimensions (Unit : mm)

95
95
47.5
185
165
Φ 66
5.2
14
18
85
1/4-20 UNC
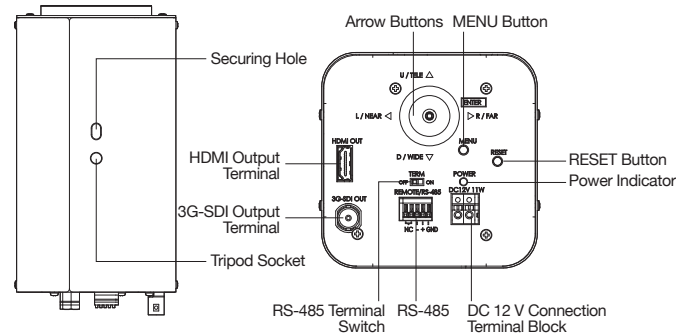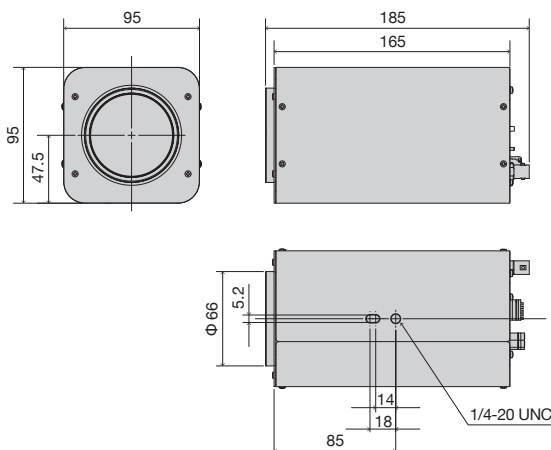
Recommended Solution

Image Optimization System

DuraVision® EVS1VX

The DuraVision EVS1VX is an image optimization system that analyzes and processes video footage in real time to improve visibility. The SSZ-9700 used with EVS1VX and FlexScan HDMI monitors provides a highly visible solution for security & surveillance.

Example

SSZ-9700   HDMI →   EVS1VX   HDMI →

EIZO FlexScan HDMI Monitor

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