

MV-SC6500P-AI-WID

Smart Camera

MV-SC6500P-AI-WID smart camera is developed based on high-performance embedded platform with strong calculation performance. It integrates AI recognition algorithm and multiple lighting methods to recognize wafer ID information in multiple processing stages. With access to screen display, it achieves application flexibility and adaptability for complex scenarios in semiconductor industry.



Key Features

- Adopts AI algorithm to recognize wafer ID information.
- Supports advanced optical imaging system with multiple lighting methods.
- Integrates VM functions, and supports more than 140 algorithms.
- Adopts high-performance CPU with faster calculation performance and high efficiency.
- Supports multiple communication protocols.
- Supports indicators displaying device status for easy debugging and maintenance.

Available Models

- Supports red LED: MV-SC6500P-AI-WID-RBN
- Supports NIR light: MV-SC6500P-AI-WID-IBN



Specification

Model	MV-SC6500P-AI-WID-IBN	MV-SC6500P-AI-WID-RBN
Tool		
Function module	Vision Master Platform (include deep learning module) and SCClient	
Algorithm capability	SEMI OCR character, data matrix code, QR code, and barcode	
Communication protocol	TCP, UDP, MODBUS, Serial Port, PROFINET, EtherNet/IP, Fins, MC, FTP, etc.	
Camera		
Sensor type	CMOS, global shutter	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	1/3.4"	
Resolution	1408 × 576	
Max. frame rate	120 fps	
Gain	0 dB to 37 dB	
Exposure time	25 μs to 1 sec	
Pixel format	Mono 8	
Mono/color	Mono	
Light Source		
LED	NIR light	Red LED (RGB is supported by bar light)
Lighting method	Multiple lighting methods (bright field lighting and dark field lighting)	
Illumination intensity	Configure in software	
Indicator	Power indicator (PWR), network indicator (LNK), and status indicator (SYS)	
Platform		
Memory	8 GB	
Storage	64 GB	
Lens Installation		
Lens mount	M12-mount	
Focus mode	Auto	
Installation height	40 mm to 50 mm (recommended)	
Field of view (range)	38 mm × 15 mm	
Depth of field	± 5 mm	
Electrical feature		
Data interface	Gigabit Ethernet (1000 Mbit/s)	
Digital I/O	6-pin P7 connector provides power and I/O, including non-isolated input × 1, non-isolated output × 1, and RS-232 × 1	
Power supply	24 VDC	
Power consumption	Avg. 11.5 W @ 24 VDC Max. 18 W @ 24 VDC	
Mechanical		
Dimension	127 mm × 69 mm × 49 mm (5" × 2.7" × 1.9")	
Weight	Approx. 829 g (1.8 lb.)	
Ingress protection	IP40	

Temperature	Working temperature: 0 °C to 40 °C (32 °F to 104 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)
Humidity	20% RH to 95% RH (no condensation)
Vibration resistance	Meets standard IEC 60068-2-6:2007. Device only (without installation bracket): 10 Hz to 55 Hz, 1.5 mm peak-to-peak amplitude, 2 hours per axis (X, Y, Z)
Shock resistance	Meets standard IEC 60068-2-27:2008. Device only (without installation bracket): 30 g / 11 ms, half-sine wave, 500 shocks per axis (6 directions)
General	
Certification	CE, KC

Dimension

