

OEM Automatic Ltd

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ZEBRA VS40 SMART CAMERA

VS40-WA20M4-2C00W VS40, WIDE ANGLE, 2.3 MP, MV TOOLS, RED



- Ease of Setup with Auto-Tune: The VS40 offers a onebutton Auto-Tune feature that simplifies setup, optimizing image quality for reliable inspections straight out of the box
- loT and Cloud-Ready: Equipped to send data to Zebra's Savanna™ cloud service, the VS40 supports compliance and image storage without requiring local server infrastructure
- Power Over Ethernet (PoE): The device can be powered via Ethernet, reducing setup complexity and removing the need for additional power supplies
- Integrated with Zebra Aurora: Managed by Zebra Aurora software, the VS40 allows users to control multiple machine vision and industrial scanner devices through a single platform, offering tools for experts and guidance for beginners
- Advanced Lighting and Optics: Featuring integrated, customizable lighting options (such as red, blue, and infrared LEDs) and a rugged, industrial-grade design, the VS40 achieves high-quality imaging suitable for challenging environments



PRODUCT DESCRIPTION

The VS40 can be used in almost any inspection application on a production line, thanks to its wide range of Machine Vision tools. Tailor the device to your application with a wide range of lenses, lighting, I/Os and filters. In addition, you can upgrade to more advanced features by simply purchasing a software license. With Zebra Aurora's powerful software platform, you can easily set up, deploy and run your VS40 smart cameras.

TECHNICAL DATA

Focus Liquid lens

Interface out Ethernet with POE, Serial, USB & Industrial Protocols Lighting Red Resolution 2.3 MP Size 54.0 x 64.0 x 91.4 Software performance STANDARD MV TOOLSET Type of lens Wide angel Type of scanner **Smart Camera**

| Tool | Description | Sensor | Standard | Advanced |
|--------------------------------------|--|--------|----------|----------|
| Object Locate | Find high contrast features | | | |
| Pixel Counter | Count poets with a set/given grey level in a specific area | 7.67 | | |
| Brightness | Provide the average brightness for an area. | | | |
| Contrast | Provide the average contrast for an area | | | |
| Edge Tool | Find edges for flaturing and presence/absence | | | |
| Distance Tool | Measure the distance between two existing tool results. | | | |
| Advanced Pattern | First challenging features | | | |
| Blob | First, sort and count areas of joined pivets with a similar gray level | | | |
| Optical Character Verification (OCV) | Impacts the quality of text or logos | | | |
| Find Circle | First and measure circles: | | 0.0 | |
| Caliper Tool | First and measure the distance between two edges. | | | |
| Fitters | Enhance image quality for more robust impaction. | | | |
| 10/20/DPM | Reed 10, 20 and DPM barcodes | | | |
| Deep Learning OCR | Deep Learning-based OCR | | | |
| Footnotes | | | | |

Specifications

| VS40-SR-30" FOV Lens | | V\$40-WA46" FOV L | VS40-WA46" FOV Lens | | |
|----------------------|------------|-------------------|----------------------|------------|---------------|
| Symbology Resolution | Near | Fac | Symbology/Resolution | Near | Far |
| 5 mil Code 128 | 3 in/d cm | 24 m/61 cm | 5 mil Code 128 | 3 H/S cm | 14 to /36 cm |
| 10 mil Code 128 | 3 in.18 cm | 49 in /124 cm | 10 mil Code 128 | 3 in /8 cm | 30 in /76 cm |
| 15 mil Code 128 | 3 in/d cm | 20 in /176 cm | 15 mil Code 128 | 3 H-3 cm | 42 is /107 cm |
| 20 mil Code 128 | 3 in /8 cm | 92 H/234 ON | 20 mil Code 128 | 3 in/8 cm | 56 in /147 cm |
| 5 mil DataMatrix | 3 in/8 cm | t)in/33cm | 5 mil DataMatrix | 3 H/E 011 | Ein/201m |
| 10 mil DataMatrix | 3 in. them | 28 m/71 cm | 10 mil DataMatrix | 3 in/8 cm | 18 in./45 cm |
| 15 mil OutaMatrix | 3 in 78 cm | 40 in./902 on | 15 mil DataMatrix | 3 in dice | 27 m /69 on |
| 30 mil DutaMatrix | 3 in. Sice | 78 in./998 cm | 30 mil DataMatrix | 3 in/8 cm | 32 in /132 cm |

xS40 Connections



| 1 | Power Serial and GPIO |
|---|--------------------------|
| 2 | USB-C (with DisplayPort) |
| 3 | External Lighting |
| 4 | X-Coded Ethernet Port |
| | |

Ethernet Connector



| 1 | TP1+ | |
|-------|--------|--|
| 2 | TPS- | |
| 3 | TP2+ | |
| 4 | TP2- | |
| 5 | TP4+ | |
| 6 | TP4- | |
| 7 | TP3- | |
| 8 | TP3+ | |
| SHELL | SHIELD | |
| | | |
| | | |

External Light Connector



| 1 | Brown | DC_OUT / GPIOS | |
|-------|--------|----------------|--|
| 2 | White: | GPIO7 | |
| 3 | Blue | GND | |
| 4 | Black | GPI06 | |
| 5 | Grey | ANALOG_OUT | |
| SHELL | Bare | SHIELD | |

er and IO Connector



| | | Description |
|-------|--------------|-------------|
| , | Yellow | GP102 |
| 2 | White/Yellow | TXD |
| 3 | Brown | RXD |
| 4 | White/Brown | GPI04 |
| 5 | Violet | GPI05 |
| 6 | White/Violet | COMMON_IN |
| 7 | Red | DC_IN |
| | Black | GND |
| 9 | Green | COMMON_OUT |
| 10 | Orange | GPIO0 |
| 11 | Blue | GPI01 |
| 12 | Grey | GPIO3 |
| SHELL | Bare | SHIELD |
| | | |

| Machine Vision (MV) Tools | | - | | _ |
|--------------------------------------|--|--------|----------|----------|
| Tool | Description | Sensor | Standard | Advances |
| Object Locate | Find high contrast features | | | |
| Pixel Counter | Count powits with a ses/given grey level in a specific area | 7.0 | | |
| Brightness | Provide the average brightness for an area. | 1.0 | | |
| Contrast | Provide the average contrast for an area | | | |
| Edge Tool | Find edges for flaturing and presence/absence | | | |
| Distance Tool | Measure the distance between two existing tool results. | | | |
| Advanced Pattern | First challenging leatures | | | |
| Blob | First, sort and court areas of joined pixels with a similar gray level | | | |
| Optical Character Verification (OCV) | impects the quality of text or logos | | | |
| Find Circle | Find and measure circles: | | 0.0 | |
| Caliper Tool | First and measure the distance between two edges. | | | |
| Fiters | Enhance image quality for more robust impaction | | | |
| 10/20/DPM | Reed 10, 20 and DPM barcodes | | | |
| Deep Learning OCR | Deep Learning-based OCR | | | |
| Footnotes | 46 | Min | | |

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Ethernet Connector



| • | Description | |
|--------|--|---|
| TP1+ | | |
| TPS- | | |
| TP2+ | | |
| TP2- | | |
| TP4+ | | |
| TP4- | | |
| TP3- | | |
| TP3+ | | |
| SHIELD | | |
| | TPI+ TPI- TPI- TP2+ TP2- TP4- TP4- TP4- TP3- TP3- TP3- | TPH. 199- 199- 199- 199- 199- 199- 199- 199 |

External Light Connector



| Pin. | Caler | Description | | |
|-------|-------|----------------|--|--|
| | Brown | DC_OUT / GPIOB | | |
| 2 | White | GPIO7 | | |
| 1 | Blue | GND | | |
| 4 | Black | GPI06 | | |
| 5 | Grey | ANALOG_OUT | | |
| SHELL | Bare | SHIELD | | |
| | | | | |

Power and IO Connector



Table: Power and I/O Connector Pinout Diagram

| 1 | Yellow | GP102 |
|-------------|--------------|------------|
| 2 | White/Yellow | TXD |
| 3 | Brown | RXD |
| 4 | White/Brown | GPIO4 |
| s | Violet | GPIO5 |
| 6 | White/Violet | COMMON_IN |
| 7 | Red | DC_IN |
| 7 8 9 | Black | GND |
| 9 | Green | COMMON_OUT |
| 10 | Orange | GPIO0 |
| 11 | Blue | GPIO1 |
| 12 | Grey | GPI03 |
| SHELL | Bare | SHIELD |
| | | |