

# ONCILLA MACHINE VISION COMPUTER MINI SYSTEM

- Oncilla Mini industrial grade rugged PC
- Small 150 x 105 x 52.3 mm footprint
- Compliant to MIL-STD-810H
- Ruggedized solution for Machine Vision

## FEATURES

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- Intel® Alder Lake-N Processor N97 Quad Core, 3.6 GHz.
- 16GB DDR5 SDRAM.
- 256GB SSD.
- Integrated Intel® UHD Graphics.
- 2 x 2.5GbE LAN (Intel® I225).
- Operating Temperature: -40°C to 70°C
- 1 x M.2 Key B Type 3042/3052 Socket (PCIe Gen 3×1/ USB3.2 Gen2 x1 / SATA)
- 1 x M.2 Key B Type 2242 (PCIe Gen 3×2).
- 1 x CMI Interface for optional CMI Module Expansion.
- Options: RS-232/422/485 ports or Wireless 802.11 a/b/g/n/ac & Bluetooth module.



## OVERVIEW

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The **Oncilla Machine Vision Computer – Mini (AS-ONC-1200-24W-A)** is a rugged and compact industrial PC designed for local video processing in applications such as IoT gateways, smart manufacturing, smart logistics, and factory automation. The palm-sized Oncilla Mini is the smallest and most affordable model in the Oncilla product range. It has passed or complies with many international certification standards, such as EMC standards in industrial environments (IEC 61000-6-2 and IEC 61000-6-4) and US military shock vibration standards (MIL-STD-810H). The Oncilla Mini system is designed with longevity in mind using long-term availability components and processor, the same system configuration availability is targeted at a minimum of seven years.

For expansion cards, the Oncilla Mini has two M.2 Key B slots (e.g. wireless card - 5G, Wi-Fi, Bluetooth) and a CMI interface for I/O expansion (e.g. RS232/422/485). The Oncilla Mini can be purchased without OS or with pre-installed operating system (Windows / Ubuntu Linux). Having a stable known good platform to build a vision/IoT/gateway system on can save many hours of system integration and can enable swift application development.



## INDUSTRIAL PC SPECIFICATION

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<b>Oncilla Mini PC System:</b>	<b>Processor:</b> <ul style="list-style-type: none"><li>• Intel® Alder Lake-N Series N97 Quad Core CPU</li><li>• 3.6GHz 12W TDP</li></ul>
<b>Graphics:</b>	<b>Display Ports:</b> <ul style="list-style-type: none"><li>• 1 x DisplayPort connector (4096 x 2304 @ 60Hz). Verified maximum DP resolution (3840 x 2160 @ 60Hz).</li><li>• Optional additional display on CMI</li><li>• Integrated Intel® UHD Graphics.</li></ul>
<b>I/O:</b>	<b>LAN:</b> <ul style="list-style-type: none"><li>• 2 x 2.5 GbE LAN (RJ45) (Intel® I225).</li></ul> <b>USB:</b> <ul style="list-style-type: none"><li>• 2 x USB 3.2 Gen2x1 (10 Gbps) (Type A).</li></ul>
<b>I/O Options</b>	<b>M.2 Expansion:</b> <ul style="list-style-type: none"><li>• Wireless 802.11 a/b/g/n/ac &amp; Bluetooth module.</li></ul> <b>CMI Expansion port option:</b> <ul style="list-style-type: none"><li>• 2 x RS-232/422/485 (Supports 5V/12V) (DB9).</li></ul> <p>Other I/O expansion options available, please contact Active Silicon.</p>
<b>Storage:</b>	<b>Memory:</b> <ul style="list-style-type: none"><li>• 16GB 4800MHz DDR 5 SDRAM.</li></ul> <b>SSD Storage:</b> <ul style="list-style-type: none"><li>• 1x 256GB M.2 SSD.</li></ul> <b>Optional Storage Expansion:</b> <ul style="list-style-type: none"><li>• 1 x M.2 SSD shared by M.2 Key B Type 3052 socket, supports NVMe SSD (PCIe Gen 3×1) or SATA SSD (SATA 3.0).</li><li>• 1 x M.2 SSD shared by M.2 Key B Type 2242 socket, supports NVMe SSD (PCIe Gen 3×2). 1 x 2.5" Internal SATA HDD/SSD Bay (SATA 3.0).</li></ul>
<b>Expansion:</b>	<b>M.2 Key B Socket:</b> <ul style="list-style-type: none"><li>• 1x M.2 Key B Type 3042/3052 socket (PCIe Gen 3×1/ USB3.2 Gen2 x1 / SATA), supports 5G/storage/add-on card expansion.</li><li>• 1x M.2 Key B Type 2242 (PCIe Gen 3×2), supports storage/add-on card expansion.</li></ul> <p>1x SIM socket (accessible via front panel) 1x CMI (Combined Multiple I/O) Interface</p>
<b>Power Input:</b>	9-48VDC, 3-pin terminal block.

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## CONFORMANCE

<i>Industrial PC Approvals:</i>	EMC	CE, UKCA, FCC, ICES-003 Class A EN61000-6-4, EN61000-6-2 (24VDC Input Only)
	EMI	CISPR 32 Conducted & Radiated: Class A EN/BS EN 55032 Conducted & Radiated: Class A EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A EN/BS EN61000-3-3 Voltage fluctuations & flicker FCC 47 CFR Part 15B, ICES-003 Conducted & Radiated: Class A
	EMS	EN/IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 10 V/m EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 1 kV; Signal: 1 kV EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV EN/IEC 61000-4-6 CS: 10V (*Compliant with the standard when utilizing shielded ethernet cable.) EN/IEC 61000-4-8 PFMF: 50 Hz, 30A/m EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 1 cycles at 60 Hz
	Shock and Vibration	MIL-STD-810G

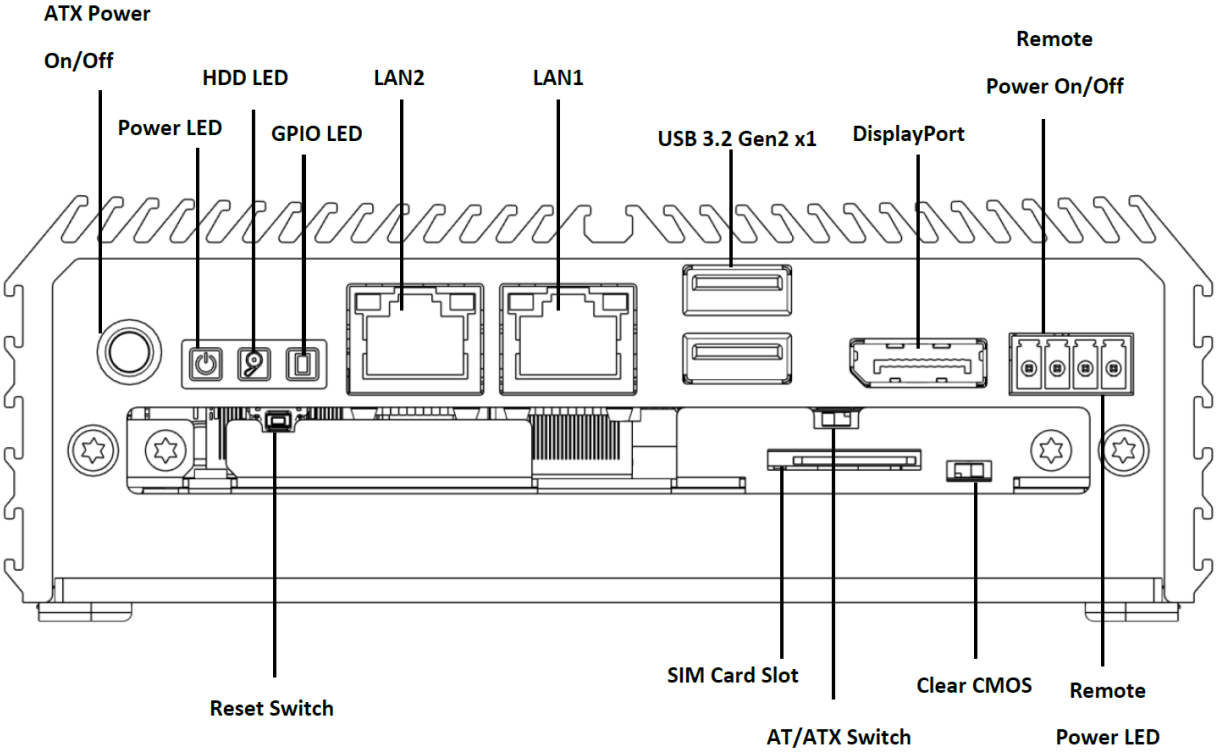
## PHYSICAL AND ENVIRONMENTAL DETAILS

<i>Dimensions (W x D x H):</i>	150 x 105 x 52.3 mm
<i>Approximate weight:</i>	810g
<i>Storage Temperature:</i>	-40°C to +70°C.
<i>Operating Temperature:</i>	-40°C to +70°C (ambient environment). PassMark BurnInTest: 100% CPU, 2D/3D Graphics (without thermal throttling) With extended temperature peripherals; Ambient with air flow According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14.
<i>Relative Humidity:</i>	95% RH @ 70°C non-condensing (operating and storage).

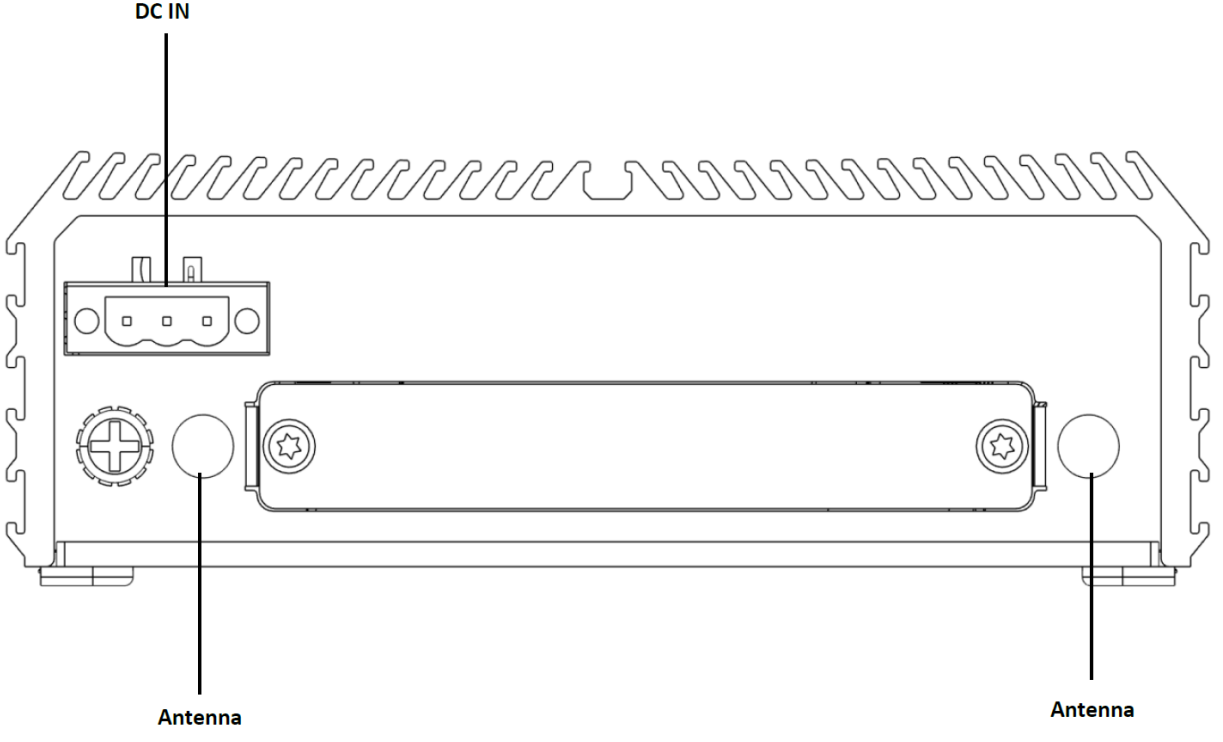


# LAYOUT AND DIMENSIONS

Front:

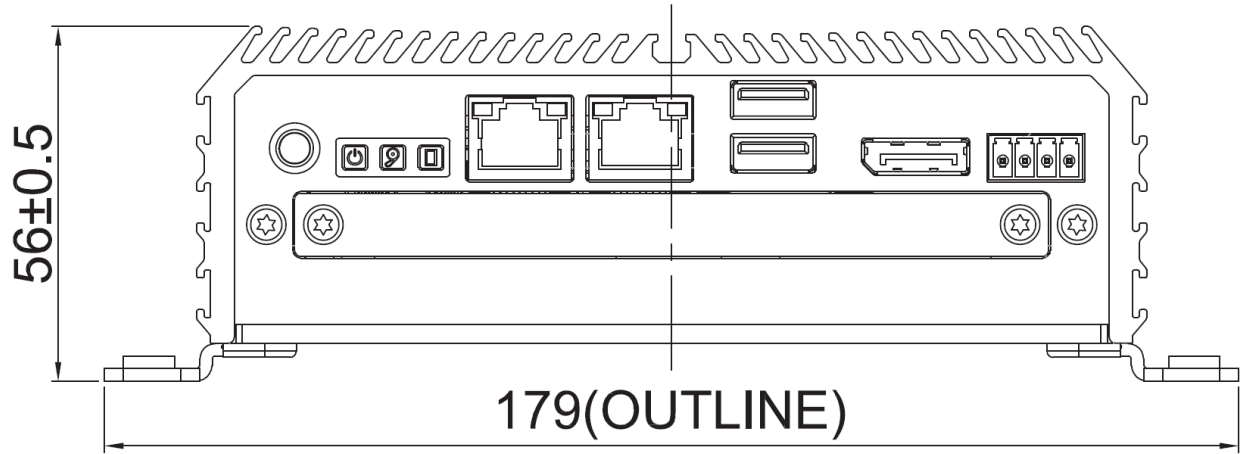


Rear:

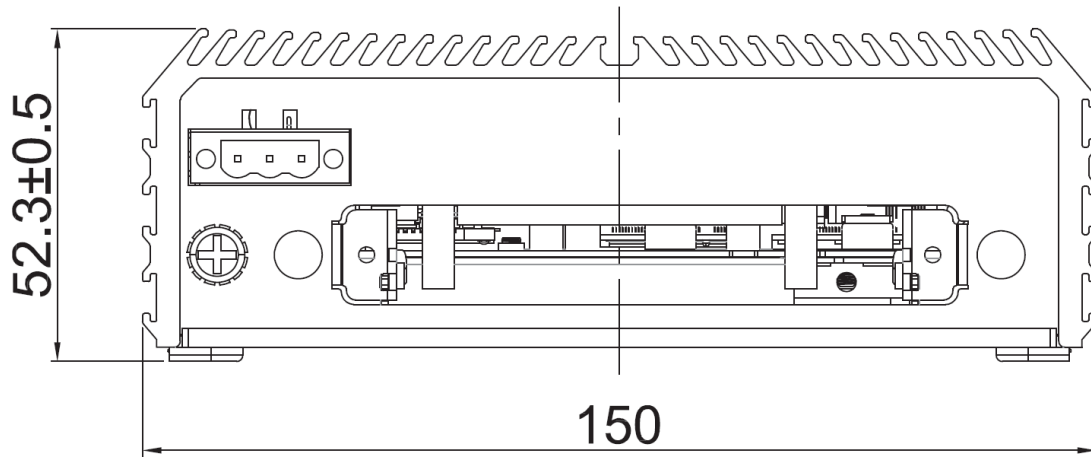




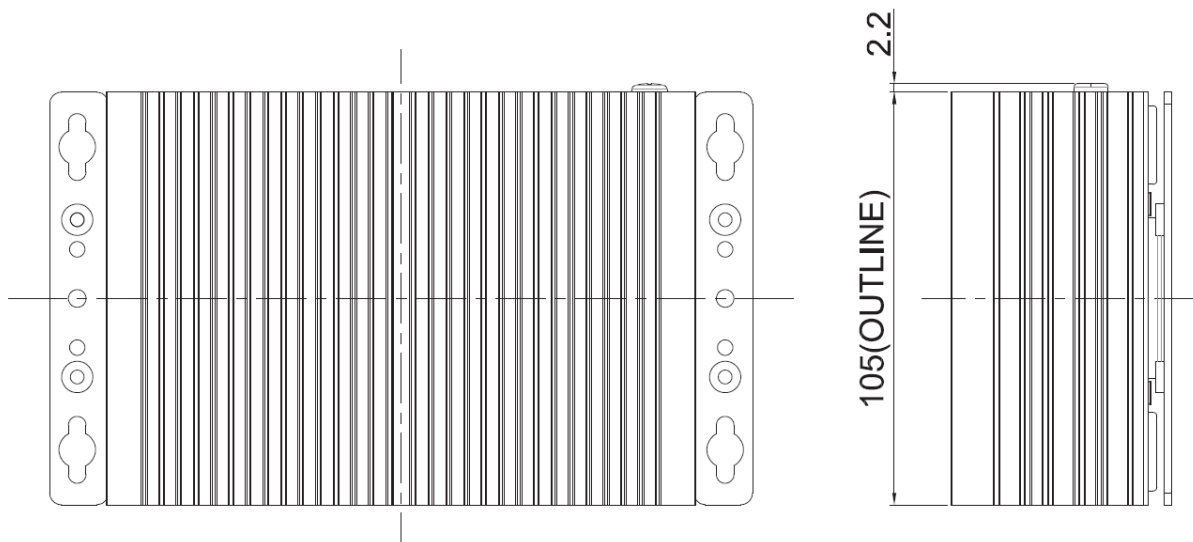
Front:



Rear:



Plan and Side View:





## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
AS-ONC-1200-24W-A	<b>Oncilla Machine Vision Computer – Mini</b> 256GB SSD, 6GB DDR, Microsoft Windows 11
AS-ONC-60W-PSU	<b>Oncilla 60 Watt Mains Power Supply Unit</b> 110/240V AC Input, 12V DC 60W Output Supply including IEC cables for EU, UK, USA
<b>Other Oncilla Machine Vision Solutions</b>	
AS-ONC-1402-24W-4XCXP-A	<b>Oncilla Machine Vision Computer – CoaXPress</b> Standard 2024 1402 chassis PCIe riser with 1 x16 Slot (inc. PEG connector) + 1 x1 slot 1x AS-FBD-4XCXP12-3PE8 Microsoft Windows 11, ActiveCapture, ActiveSDK
AS-ONC-1402-24W-4XCOF-A	<b>Oncilla Machine Vision Computer – CoaXPress over Fiber</b> Standard 2024 1402 chassis PCIe riser with 2 x8 Slots 1x AS-FBD-4XCOF12-3PE8 Microsoft Windows 11, ActiveCapture, ActiveSDK
AS-ONC-1402-24W-1XCLD-A	<b>Oncilla Machine Vision Computer – Camera Link</b> Standard 2024 1402 chassis PCIe riser with 2 x8 Slots 1x AS-FBD-1XCLD-2PE4 Microsoft Windows 11, ActiveCapture, ActiveSDK



## CONTACT DETAILS

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