



# ROC200-DL

## SFF Rugged GPU Computer



### Key Features

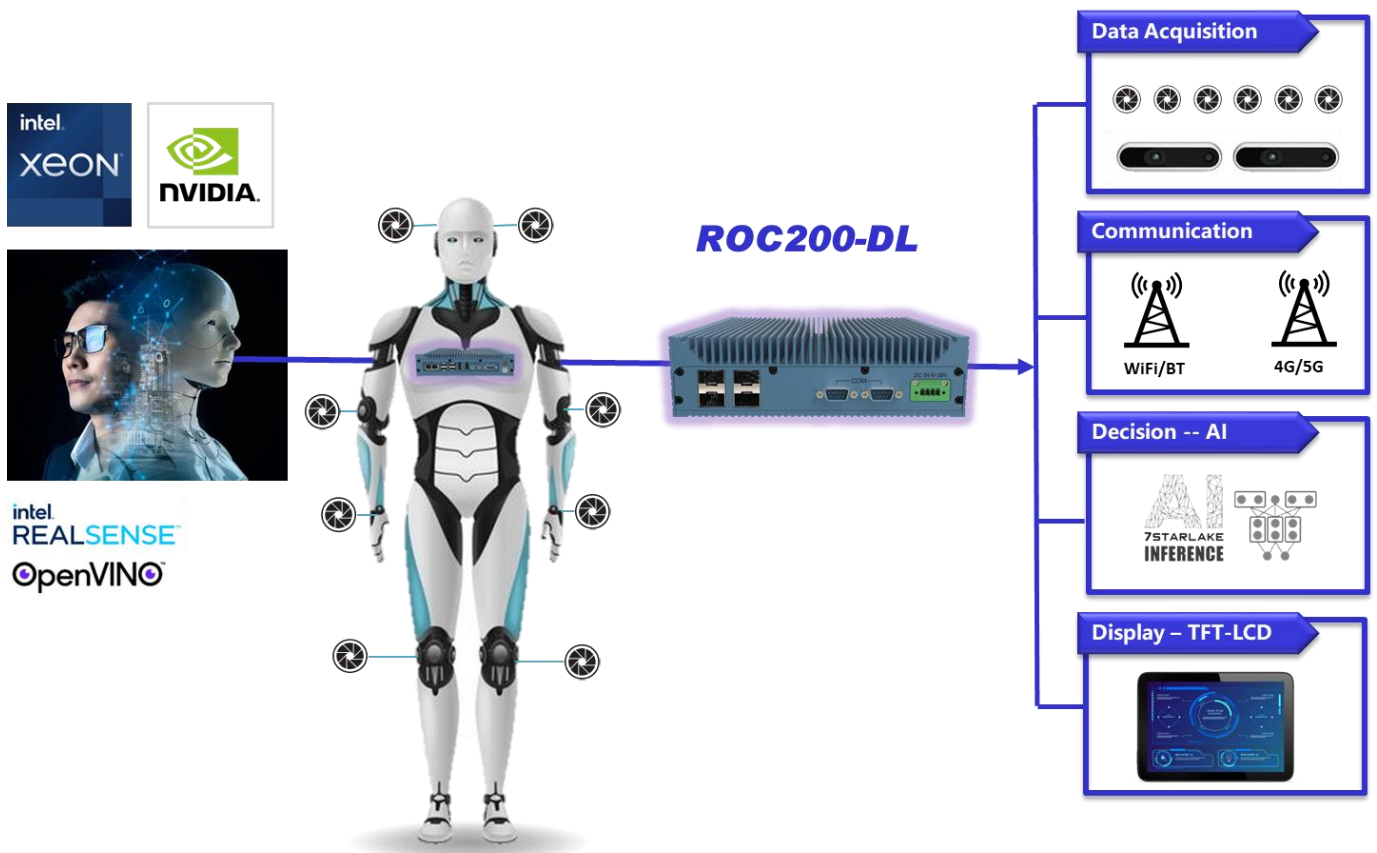
- MIL-STD 810 Thermal, Shock, Vibration, Humidity
- Intel® Xeon® Ice Lake-D LCC, D-1746TER, D-1732TE processor
- Nvidia MXM 5000Ada (9728 CUDA, 16GB GDDR6)
- Nvidia MXM 3500Ada (5120 CUDA, 12GB GDDR6)
- Up to 128GB DDR4 SO-DIMM
- COM Express Type 7 with MXM-GPU Expansions
- Extreme Temperature Support -20°C to 50°C
- 9V~36V DC-IN



# Introduction

Unleashing the future of Intel Xeon-D LCC Robotics, the ROC200-DL goes beyond the ordinary, mastering the art of identifying, mapping, and resolving real-world scenarios with a human-like touch.

Fueled by the sheer prowess of the Intel® Xeon® D-1700 processor (Ice Lake-D LCC), Nvidia Quadro MXM 5000 Ada or RTX MXM A4500 Graphic( 9728/5888 CUDA Cores), ROC200-DL isn't just an AI server – it's a Pint-sized powerhouse of dynamic sensor fusion marvel. Built on the robust foundation of Intel hardware, this solution rides the cutting edge with OpenVINO and REALSENSE technology, creating a symphony of innovation. Intel's open-source software-defined platform propels the ROC200-DL to not only perceive its surroundings with unparalleled efficiency but also respond in real-time to the dynamic demands of the modern landscape. With AI workloads meticulously optimized, the ROC200-DL is your gateway to a future where responsiveness meets intelligence, seamlessly shaping the landscape of innovation.



# Specifications

## Processor & System

|                                  |   |
|----------------------------------|---|
| COM Express CPU (Type 7)         | Intel® Xeon® D-1700 processor (Ice Lake-D LCC)  |
| COM Express CPU Options (Type 7) | Intel® Xeon® D-1700 processor (Ice Lake-D LCC) <ul style="list-style-type: none"><li>• Xeon® D-1746TER 2.0/3.1GHz, 15MB, 67W, 10C</li><li>• Xeon® D-1732TE 1.9/3.0GHz, 15MB, 52W, 8C</li><li>• Xeon® D-1715TER 2.4/3.5GHz, 10MB, 50W, 4C</li></ul>        |
| GPU Module Options               | NVIDIA® Quadro® 5000Ada, 115W, 16GB GDDR6, 9728 CUDA Cores<br>NVIDIA® Quadro® MXM A4500, 80/115W, 16GB GDDR6, 5888 CUDA Cores<br>NVIDIA® Quadro® 3500Ada, 115W, 12GB GDDR6, 5120 CUDA Cores<br>NVIDIA® Quadro® MXM A2000, 60W, 8GB GDDR6, 2560 CUDA Cores |
| Memory type                      | DDR4, up to 128GB   |
| Chipset                          | Base On CPU module  |
| Watchdog                         | Base On CPU module  |

## Display

|                       |                                      |
|-----------------------|--------------------------------------|
| Internal Display Port | 1x Display Port outputs from MXM GPU |
|-----------------------|--------------------------------------|

## Ethernet

|              |   |
|--------------|---|
| 10GbE SFP+   | 4x (Intel C827 10G Retimer)                   |
| RJ45 GbE LAN | 2x 1GbE(one from CPU module, One from I210IT) |

## Storage

|               |   |
|---------------|---|
| M.2           | 1x M.2 2280 M-Key Slot (PCIe x4 GEN3, NVMe) |
| Swappable SSD | 1x 2.5" SATA III Swappable tray             |

## Rear I/O

|                    |                                 |
|--------------------|---------------------------------|
| 10GbE SFP+         | 4x                              |
| Swappable SSD Tray | 1x 2.5" SATA III Swappable tray |
| COM                | 2x RS232                        |

## Front I/O

|              |                     |
|--------------|---------------------|
| LED          | 1x SSD LED          |
| Power button | 1x                  |
| USB          | 2x USB3.0           |
| Display port | 1x DP               |
| LAN          | 2x J45              |
| DC-IN        | 1x D38999 connector |

## Power Management

|            |   |
|------------|---|
| Power Type | Wide Voltage DC-IN 9V~36V (Support AT/ATX mode) |
|------------|---|

## Applications, Operating System

|                  |  |
|------------------|--|
| Applications     | Energy/Power Plant Management, Intelligent Automation and manufacturing applications |
| Operating System | Win10, Win server 2012 R2 Standard   |

## Mechanical and Environmental

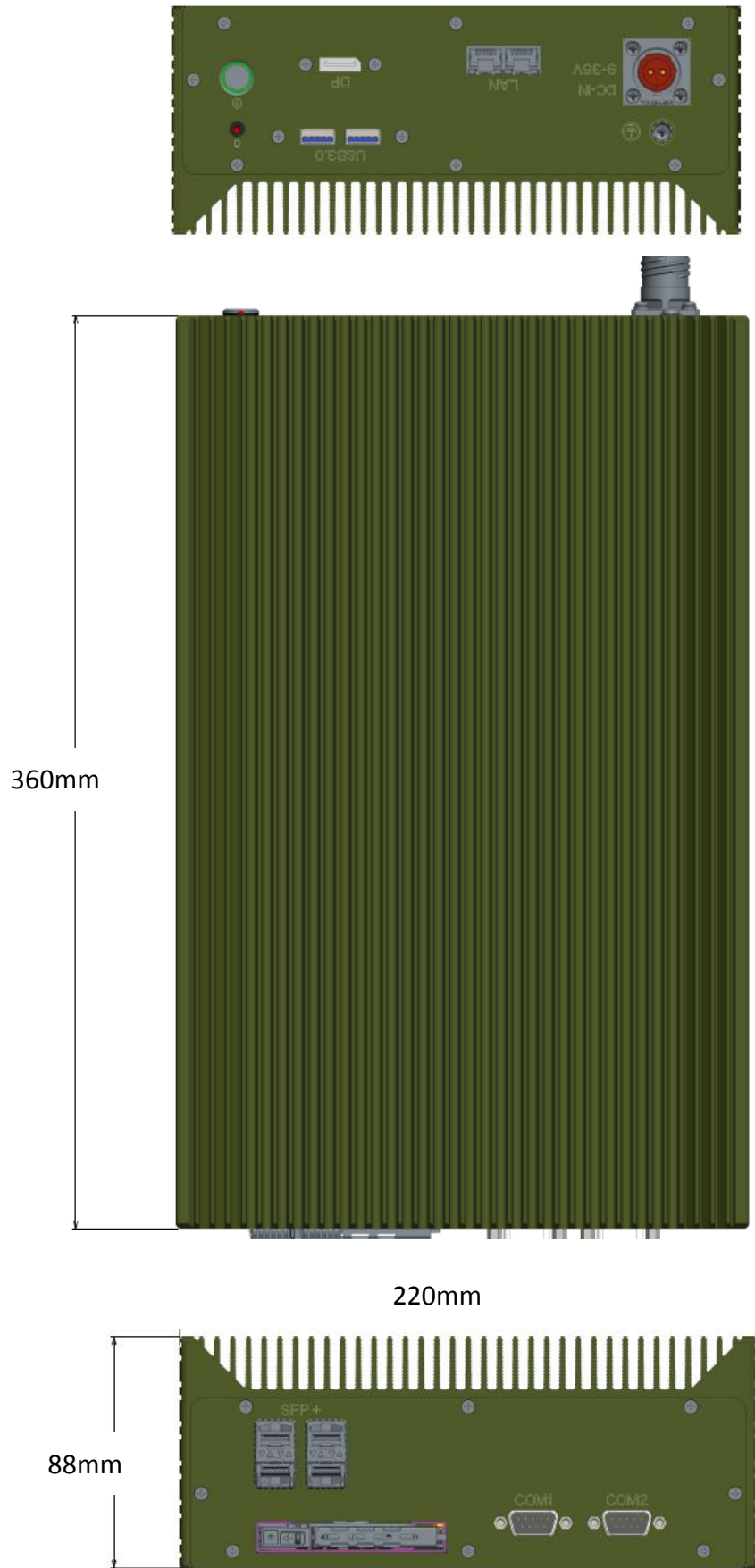
|                   |  |
|-------------------|--|
| Dimension         | 250 x 350 x 88mm                                       |
| Weight            | TBC  |
| Chassis           | Aluminum Alloy   |
| Heatsink          | Aluminum Alloy, Corrosion Resistant                    |
| Finish            | Anodic aluminum oxide                                  |
| Compliance        | MIL-STD-810G, IEC-61850-3, IEEE-1613, CE and FCC, RoHS |
| Operating Temp.   | - 20°C to 50°C   |
| Storage Temp.     | -40°C to 85°C  |
| Relative Humidity | 5% to 95%, non-condensing                              |



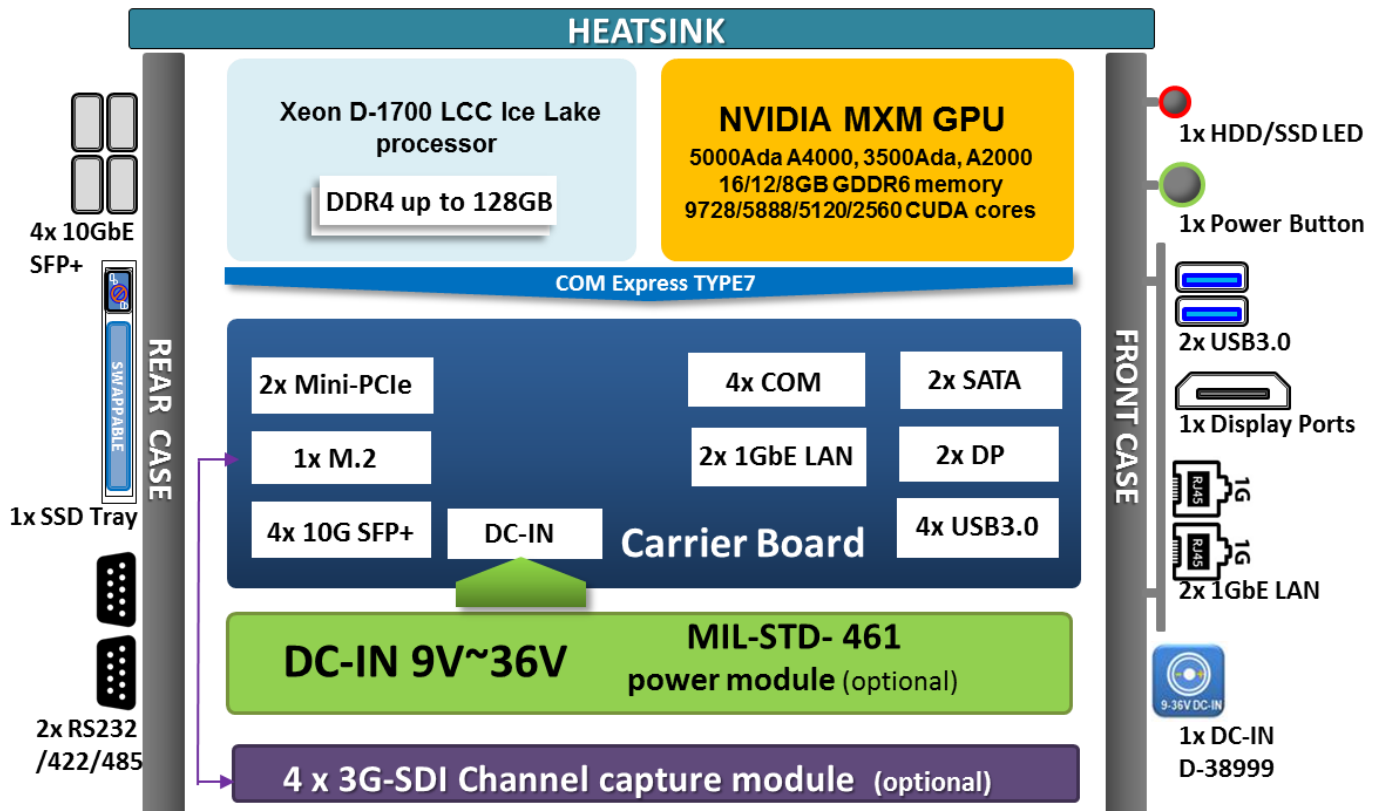
# Appearance



# Dimension



# Block Diagram



# Ordering Information

|                | ROC200-DL-A20                      | ROC200-DL-35A       | ROC200-DL-A45       | ROC200-DL-50A                   | ROC200-DL-R       | ROC200-DL-4S        |
|----------------|------------------------------------|---------------------|---------------------|---------------------------------|-------------------|---------------------|
| <b>CPU</b>     | Xeon-D-1732TE, 8C                  | Xeon D-1746TER, 10C | Xeon D-1746TER, 10C | Xeon D-1746TER, 10C             | Xeon-D-1732TE, 8C | Xeon D-1746TER, 10C |
| <b>GPU</b>     | MXM A2000                          | MXM 3500Ada         | MXM A4500           | MXM 5000Ada                     | MXM A2000         | MXM A3500Ada        |
| <b>RAM</b>     | DDR4 up to 128GB SO-DIMM           |                     |                     |                                 |                   |                     |
| <b>Storage</b> | 1x M.2 2280 M-key,<br>2x SATA SSD  |                     |                     | 2x SATA<br>(Option HW Raid 0/1) |                   |                     |
| <b>PSU</b>     | 9V~36V DC-IN                       |                     |                     |                                 |                   |                     |
| <b>I/O</b>     | 4x 10GbE LAN                       |                     |                     |                                 |                   |                     |
|                | 2x USB3.0 + 2x USB2.0              |                     |                     |                                 |                   |                     |
|                | 2x DP ports                        |                     |                     |                                 |                   |                     |
|                | Power Switch + HDD/SSD LED         |                     |                     |                                 |                   |                     |
| <b>OS</b>      | Win10, Win server 2012 R2 Standard |                     |                     |                                 |                   |                     |