

AUTONOMY, PERCEPTION,  
SITUATIONAL AWARENESS  
AND EDGE PROCESSING  
FOR VEHICLE PLATFORMS.



- Up to 157 TOPS  
NVIDIA Jetson Orin NX 16GB
- 4 x GMSL2 Camera Inputs (FAKRA)
- Gigabit Ethernet
- CAN, UART, GPIO, I<sup>2</sup>C
- 9 ~ 36 VDC Vehicle Power
- 25°C to +70°C
- IP67  
Rugged, Fanless, Conduction Cooled
- Designed to meet  
MIL-STD-810H / MIL-STD-461G /  
DO-160H



FRONT VIEW



REAR VIEW



SIDE VIEW



## VRCNX16-200R

**Rugged multi-camera edge AI platform for vehicle autonomy, perception and situational awareness.**

Fanless, conduction-cooled computing integrates NVIDIA Jetson Orin NX 16GB, four GMSL2 camera inputs and vehicle I/O in a compact IP67 enclosure for defense, robotic, fleet and industrial mobile platforms.

**Up to 157 TOPS**

Jetson Orin NX 16GB

**4 x GMSL2**

FAKRA camera inputs

**9-36 VDC**

Vehicle power input

**IP67**

Fanless / conduction cooled

**-25 C to +70 C**

Operating temperature

### TYPICAL APPLICATIONS

Autonomous Vehicles | UGV / Robotics | Defense Vehicles | Fleet / Telematics | Mining / Construction | Industrial / Outdoor

\* Peak platform capability depends on NVIDIA power mode, JetPack release and system configuration. \*\* Preliminary weight; configuration dependent.

Specifications subject to change without notice.

## Configuration

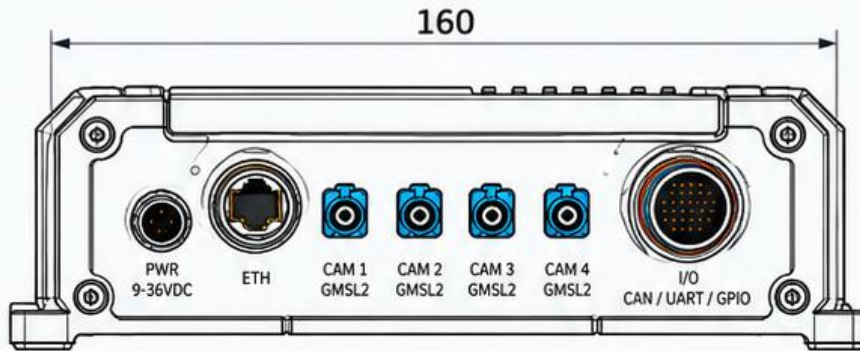
Module-level compute capabilities are combined with the vehicle-specific I/O, power, enclosure and environmental features shown for this computer.

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| <div>COMPUTE</div> <table><tr><td>AI processor</td><td>NVIDIA Jetson Orin NX 16GB</td></tr><tr><td>AI performance</td><td>Up to 157 TOPS (MAXN SUPER)*</td></tr><tr><td>GPU</td><td>1024-core NVIDIA Ampere architecture GPU</td></tr><tr><td>Tensor cores</td><td>32</td></tr><tr><td>CPU</td><td>8-core Arm Cortex-A78AE v8.2 64-bit</td></tr><tr><td>Memory</td><td>16GB LPDDR5</td></tr><tr><td>Bandwidth</td><td>Up to 102 GB/s</td></tr></table> | AI processor                                                                                                                                                                                                                                                                                                                                                                                                                                | NVIDIA Jetson Orin NX 16GB | AI performance | Up to 157 TOPS (MAXN SUPER)*             | GPU          | 1024-core NVIDIA Ampere architecture GPU        | Tensor cores                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 32                                        | CPU                                                                                                                                                                                                                                                                                                                                                                                                                           | 8-core Arm Cortex-A78AE v8.2 64-bit | Memory                            | 16GB LPDDR5   | Bandwidth                                      | Up to 102 GB/s | <div>NETWORK &amp; MULTI-I/O</div> <table><tr><td>Ethernet</td><td>1 x 10/100/1000BASE-T; (Option for 2x ports)</td></tr><tr><td>CAN</td><td>CAN bus; CAN-FD support by configuration</td></tr><tr><td>UART</td><td>UART / debug serial interface</td></tr><tr><td>GPIO</td><td>General-purpose digital I/O</td></tr><tr><td>I2C</td><td>I2C control / peripheral bus</td></tr><tr><td>Connector</td><td>Rugged circular Multi-I/O connectors</td></tr></table> | Ethernet   | 1 x 10/100/1000BASE-T; (Option for 2x ports) | CAN        | CAN bus; CAN-FD support by configuration     | UART   | UART / debug serial interface           | GPIO             | General-purpose digital I/O                               | I2C | I2C control / peripheral bus | Connector | Rugged circular Multi-I/O connectors |
| AI processor                                                                                                                                                                                                                                                                                                                                                                                                                                           | NVIDIA Jetson Orin NX 16GB                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| AI performance                                                                                                                                                                                                                                                                                                                                                                                                                                         | Up to 157 TOPS (MAXN SUPER)*                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| GPU                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1024-core NVIDIA Ampere architecture GPU                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Tensor cores                                                                                                                                                                                                                                                                                                                                                                                                                                           | 32                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| CPU                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8-core Arm Cortex-A78AE v8.2 64-bit                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Memory                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16GB LPDDR5                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                              | Up to 102 GB/s                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Ethernet                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1 x 10/100/1000BASE-T; (Option for 2x ports)                                                                                                                                                                                                                                                                                                                                                                                                |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| CAN                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CAN bus; CAN-FD support by configuration                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| UART                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UART / debug serial interface                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| GPIO                                                                                                                                                                                                                                                                                                                                                                                                                                                   | General-purpose digital I/O                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| I2C                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I2C control / peripheral bus                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Connector                                                                                                                                                                                                                                                                                                                                                                                                                                              | Rugged circular Multi-I/O connectors                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| <div>CAMERA &amp; VIDEO</div> <table><tr><td>Channels</td><td>4 x GMSL2 camera inputs</td></tr><tr><td>Connectors</td><td>4 x rugged FAKRA, panel mounted</td></tr><tr><td>Camera types</td><td>EO / IR / thermal / navigation / machine vision</td></tr><tr><td>Video path</td><td>GMSL2 to Jetson CSI-2 processing pipeline</td></tr></table>                                                                                                        | Channels                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4 x GMSL2 camera inputs    | Connectors     | 4 x rugged FAKRA, panel mounted          | Camera types | EO / IR / thermal / navigation / machine vision | Video path                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GMSL2 to Jetson CSI-2 processing pipeline | <div>POWER &amp; ELECTRICAL</div> <table><tr><td>Input</td><td>9-36 VDC wide-range vehicle input</td></tr><tr><td>Nominal buses</td><td>12 V / 24 V / 28 V vehicle systems</td></tr><tr><td>Conditioning</td><td>Integrated regulated power stage</td></tr><tr><td>Protection</td><td>Reverse polarity, OVP, UVP, OCP, SCP</td></tr><tr><td>Transients</td><td>Vehicle transient / surge suppression design</td></tr></table> | Input                               | 9-36 VDC wide-range vehicle input | Nominal buses | 12 V / 24 V / 28 V vehicle systems             | Conditioning   | Integrated regulated power stage                                                                                                                                                                                                                                                                                                                                                                                                                                | Protection | Reverse polarity, OVP, UVP, OCP, SCP         | Transients | Vehicle transient / surge suppression design |        |                                         |                  |                                                           |     |                              |           |                                      |
| Channels                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4 x GMSL2 camera inputs                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Connectors                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4 x rugged FAKRA, panel mounted                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Camera types                                                                                                                                                                                                                                                                                                                                                                                                                                           | EO / IR / thermal / navigation / machine vision                                                                                                                                                                                                                                                                                                                                                                                             |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Video path                                                                                                                                                                                                                                                                                                                                                                                                                                             | GMSL2 to Jetson CSI-2 processing pipeline                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Input                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 9-36 VDC wide-range vehicle input                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Nominal buses                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12 V / 24 V / 28 V vehicle systems                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Conditioning                                                                                                                                                                                                                                                                                                                                                                                                                                           | Integrated regulated power stage                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Protection                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reverse polarity, OVP, UVP, OCP, SCP                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Transients                                                                                                                                                                                                                                                                                                                                                                                                                                             | Vehicle transient / surge suppression design                                                                                                                                                                                                                                                                                                                                                                                                |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| <div>STORAGE</div> <table><tr><td>Primary</td><td>Industrial NVMe SSD</td></tr><tr><td>Capacity</td><td>Typical 512GB; 256GB / 1TB / 2TB options</td></tr><tr><td>Use</td><td>OS, AI models, logging and video data</td></tr></table>                                                                                                                                                                                                                  | Primary                                                                                                                                                                                                                                                                                                                                                                                                                                     | Industrial NVMe SSD        | Capacity       | Typical 512GB; 256GB / 1TB / 2TB options | Use          | OS, AI models, logging and video data           | <div>MECHANICAL &amp; ENVIRONMENTAL</div> <table><tr><td>Construction</td><td>CNC-machined aluminum alloy chassis</td></tr><tr><td>Finish</td><td>Black anodized ruggedized finish</td></tr><tr><td>Cooling</td><td>Fanless conduction cooling; external heat fins</td></tr><tr><td>Ingress</td><td>IP67 sealed enclosure</td></tr><tr><td>Operating</td><td>-25 C to +70 C</td></tr><tr><td>Dimensions</td><td>160 x 100 x 65 mm</td></tr><tr><td>Weight</td><td>Approx. 1.7 kg, configuration dependent</td></tr><tr><td>Designed to meet</td><td>MIL-STD-810H / MIL-STD-461G / applicable DO-160H sections</td></tr></table> | Construction                              | CNC-machined aluminum alloy chassis                                                                                                                                                                                                                                                                                                                                                                                           | Finish                              | Black anodized ruggedized finish  | Cooling       | Fanless conduction cooling; external heat fins | Ingress        | IP67 sealed enclosure                                                                                                                                                                                                                                                                                                                                                                                                                                           | Operating  | -25 C to +70 C                               | Dimensions | 160 x 100 x 65 mm                            | Weight | Approx. 1.7 kg, configuration dependent | Designed to meet | MIL-STD-810H / MIL-STD-461G / applicable DO-160H sections |     |                              |           |                                      |
| Primary                                                                                                                                                                                                                                                                                                                                                                                                                                                | Industrial NVMe SSD                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Capacity                                                                                                                                                                                                                                                                                                                                                                                                                                               | Typical 512GB; 256GB / 1TB / 2TB options                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Use                                                                                                                                                                                                                                                                                                                                                                                                                                                    | OS, AI models, logging and video data                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Construction                                                                                                                                                                                                                                                                                                                                                                                                                                           | CNC-machined aluminum alloy chassis                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Finish                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Black anodized ruggedized finish                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                | Fanless conduction cooling; external heat fins                                                                                                                                                                                                                                                                                                                                                                                              |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Ingress                                                                                                                                                                                                                                                                                                                                                                                                                                                | IP67 sealed enclosure                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Operating                                                                                                                                                                                                                                                                                                                                                                                                                                              | -25 C to +70 C                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                             | 160 x 100 x 65 mm                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Weight                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Approx. 1.7 kg, configuration dependent                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| Designed to meet                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIL-STD-810H / MIL-STD-461G / applicable DO-160H sections                                                                                                                                                                                                                                                                                                                                                                                   |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| <div>AI SOFTWARE &amp; FRAMEWORKS</div> <div><div><ul style="list-style-type: none"><li>NVIDIA JetPack / Linux</li><li>CUDA / TensorRT / cuDNN</li></ul></div><div><ul style="list-style-type: none"><li>DeepStream / OpenCV</li><li>ROS / ROS 2 integration</li></ul></div></div>                                                                                                                                                                     | <div>PROJECT CONFIGURATION OPTIONS</div> <div><div><ul style="list-style-type: none"><li>Conformal coating</li><li>GNSS / PPS integration</li><li>RS-232 / RS-422 / RS-485</li><li>Additional GPIO</li></ul></div><div><ul style="list-style-type: none"><li>Custom D38999 pinout / harness</li><li>Custom vehicle power conditioning</li><li>Customer-specific BSP / OS image</li><li>Storage capacity configuration</li></ul></div></div> |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |
| <div>VEHICLE AI CAPABILITIES</div> <div><div><ul style="list-style-type: none"><li>Object detection &amp; classification</li><li>Multi-object tracking</li><li>Sensor fusion</li></ul></div><div><ul style="list-style-type: none"><li>Autonomous navigation</li><li>Obstacle avoidance</li><li>Real-time video analytics</li></ul></div></div>                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                |                                          |              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                   |               |                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                              |            |                                              |        |                                         |                  |                                                           |     |                              |           |                                      |

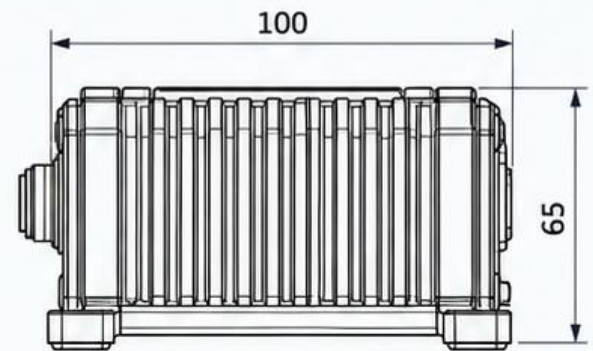
\* 157 TOPS is the Jetson Orin NX 16GB peak platform capability in supported MAXN SUPER mode. Interface availability and power/thermal behavior depend on final carrier, BSP and power-mode configuration.

## MECHANICAL DRAWING & WEIGHT

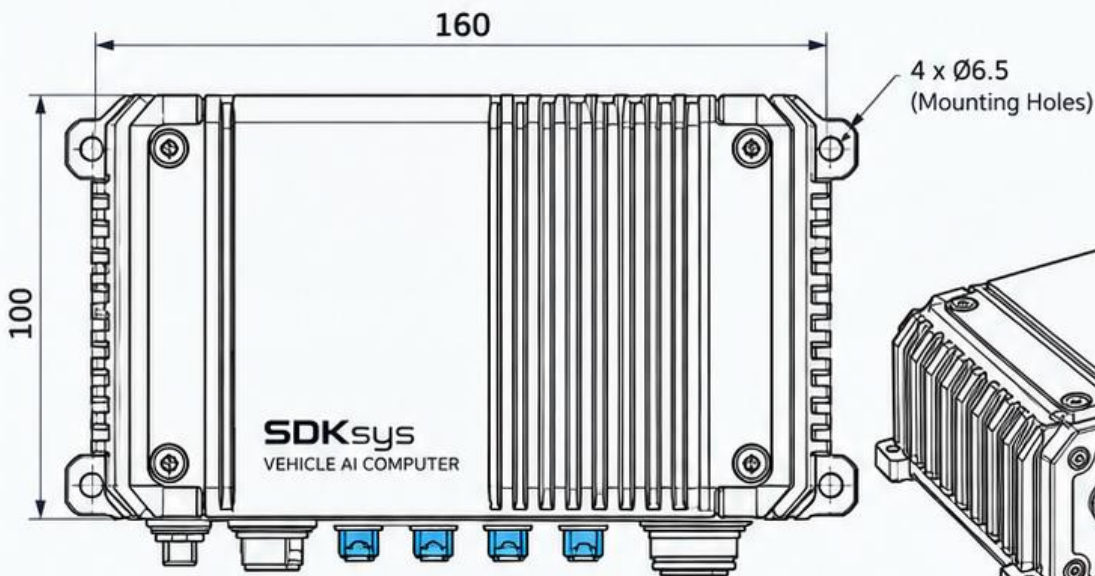
DIMENSIONS IN MM



FRONT VIEW



RIGHT-SIDE VIEW



TOP VIEW



ISOMETRIC VIEW  
(FOR REFERENCE ONLY)



REAR VIEW

### SPECIFICATION SUMMARY

Overall Dimensions: 160 x 100 x 65 mm

Weight: Approx. 1.7 kg (typical, depending on configuration)

Dimensions in mm