

Edge AI Computer

RVS-D1F / DX1F

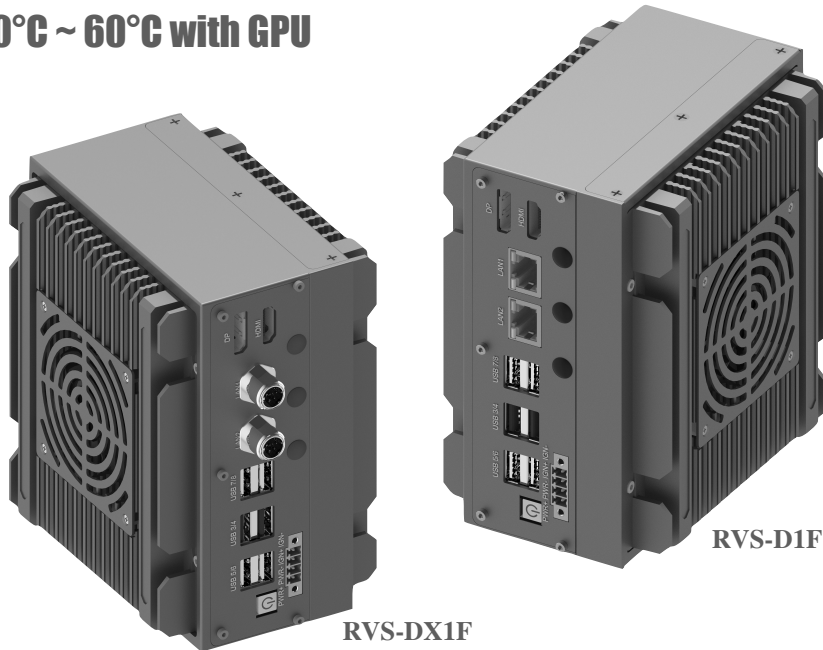
Palm Size
145mm x 125 mm x 90.1 mm

MXM GPU
TYPE A : 82 x 70 mm



Fit Anywhere and Everywhere

-40°C ~ 60°C with GPU



RVS-DX1F

RVS-D1F

Features

- ✓ 2x LAN
- ✓ 2x Displays (1x HDMI, 1x DP)
- ✓ 1x RS232/422/485, 1x RS232
- ✓ 8x USB (Support 6x USB3)
- ✓ 1x Mic In/Line Out
- ✓ 2x M.2 2242 M key (SATA III SSD) , support Raid 0/1
- ✓ 1x M.2 2242/3052 B key with SIM slot, support 4G/5G
- ✓ 1x Full Size Mini-PCIe with SIM slot, support 4G/5G
- ✓ 1x M.2 Key E Type 2230 for WIFI/BT/GPS
- ✓ 6~48V Wide DC In Voltage Input,
- ✓ Ignition Power Control
- ✓ Remote Control

SPECIFICATION

| | |
|---------------------------|--|
| Product Name | RugCon-RVS-D1F/ RVS-DX1F (M12 LAN) |
| Generation | Intel® 13th/ 12th-Gen Core™ i9 / i7 /i5 (U_15W, P_28W, H_45W) |
| Memory | Max. Capacity : 64GB DDR5 with 2x SO-DIMM |
| Display | 2x Display 1x Display Port, 4096*2304@60Hz 1x HDMI , 4096*2160@60Hz |
| LAN | 1x 2.5 GbE , 1x GbE , M12 X-coded connector for LAN Ports (RVS-DX1F) |
| CAN | N//A |
| COM | 1x RS232/422/485, 1x RS232 |
| USB | 8x USB (6x USB 3.2, 2x USB 2.0) |
| Audio | 1x 3.5mm jack for Mic-In and Line-out |
| DIO | N//A |
| Storage | 2x M.2 2242 M key (SATA III SSD) , Support Raid 0/1 , (1x M.2 2242 share with M.2 3052) |
| Internal Expansion | 1x M.2 2242/3052 M-B key with SIM slot, support 4G/5G 1x Full Size Mini-PCIe with SIM slot, support 4G/5G 1x M.2 Key E Type 2230 for WIFI/BT/GPS |
| MXM Expansion | Support TYPE A : 82 x 70 mm MXM GPU Module |
| Mechanical | Dimension : 145(W) x 125(D) x 90.1 (H) mm , Weight : 1.1 Kg , Mounting : Wall Mount / Stand Kit |
| Temperature | Operating Temperature : -40° C ~ 70 °C (According to CPU) , TGP 65W (50 °C) , TGP 35W (60 °C) Storage Temperature : -40°C to 85°C |
| Humidity | Operating : 0~95%(non-condensing) Storage : 10~90% |
| Power | 1x 3-pin pluggable terminal block for 6-48V DC Input 200V/1ms Surge Protection, Reverse-Voltage, Over-Voltage, Under-Voltage, Over-Current Protection 1x Power Button 1x 4-pin pluggable terminal block for Ignition/Remote power control |
| Vibration / Shock | Vibration test according to MIL-STD-810H, Method 514.8, Category 4 Shock test according to MIL-STD-810H, Method 516.8, Procedure I |
| EMC | CE/FCC Class A , according to EN 55032 & EN 55035 , (E-Mark / EN50155 / EN45545-2 by request) |

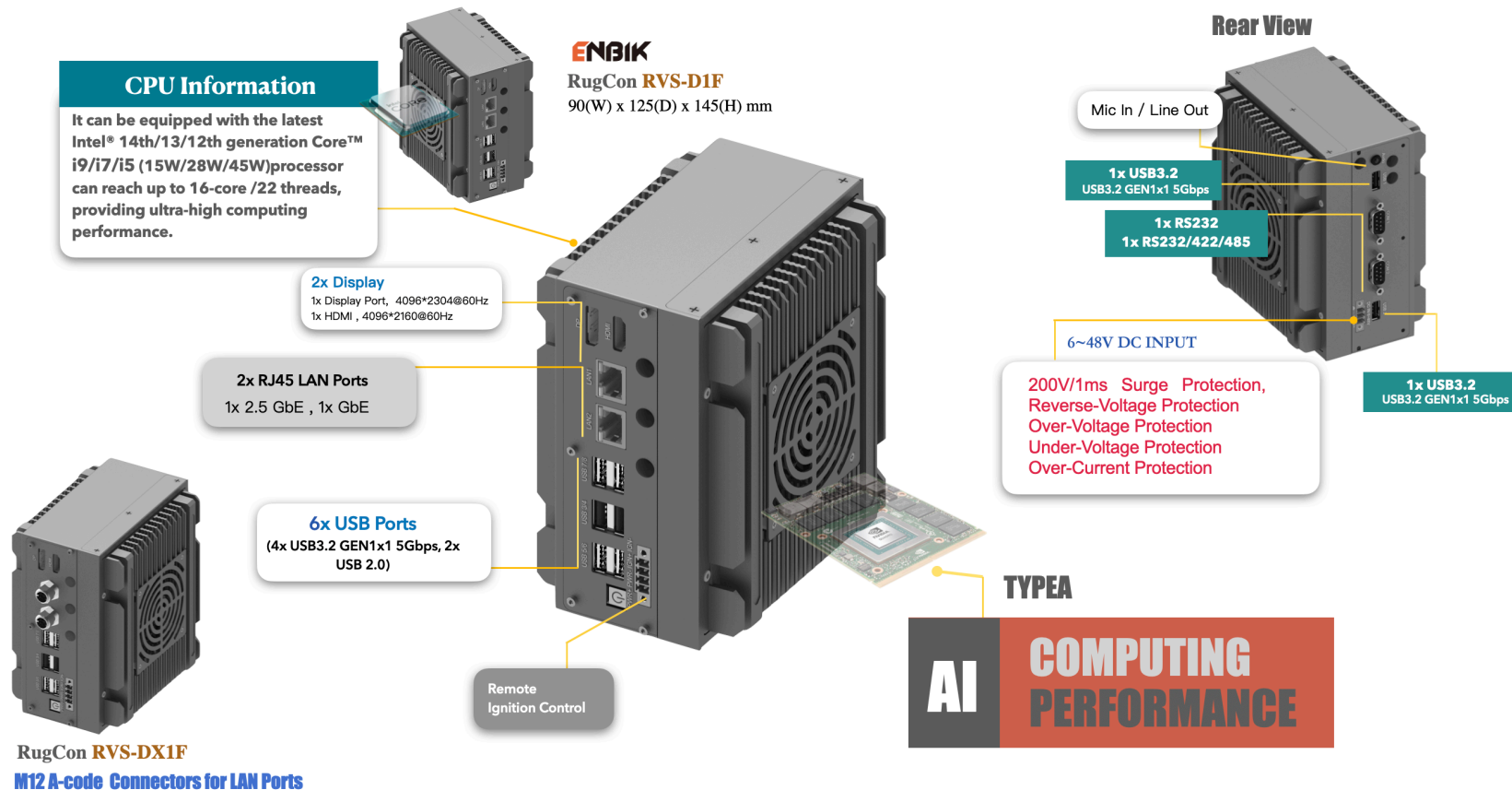
Product Introduction

ENBIK's RugCon-**RVS-D1F/DX1F** is the world's smallest MXM GPU edge AI computer which has ultra-mini size with only 145 x 125 x 90.1 mm ideal to operate effectively in space-constrained and wide operating temperature environments. In addition, because RVS-D1F has a bilateral heat dissipation design, it can easily perform AI tasks in the edge high-temperature environment. **Because RVS-D1F/DX1F adopts a low-power Intel high-performance processor and GPU, it can easily work in an edge environment with limited power supply and show excellent AI reasoning tasks. RVS-D1F/DX1F** offers a wide range of I/O ports including 2x LAN(2.5GbE/GbE), 1x RS232/422/485, 1x RS232, 8x USB and Multiple M.2 internal expansion slots for 5G/4G/WIFI/GPS. **RVS-D1F/DX1F** also has 2x M.2 2242 SATA III slots, which can install two SSD at the same time.

Shockingly, the **RVS-D1F/DX1F**, which is only the size of a palm, can actually support **NVIDIA RTX4070/RTX4060/RTX4050/RTX2000/A2000**, and the maximum computing power can reach **321TOPS**, which undoubtedly makes software developers more excited. The rich NVIDIA software ecosystem makes edge artificial intelligence deployment faster and easier to implement, effectively solves the installation and low-latency reasoning problems of various artificial intelligence models at the edge, and quickly makes various decisions and judgments at the edge. Modular GPU scalability ensures seamless upgrades to meet evolving application demands, the ENBIK's **RVS-D1F/DX1F** is definitely the best choice for edge deployment of demanding artificial intelligence tasks, limited space and limited power supply in various edge applications.

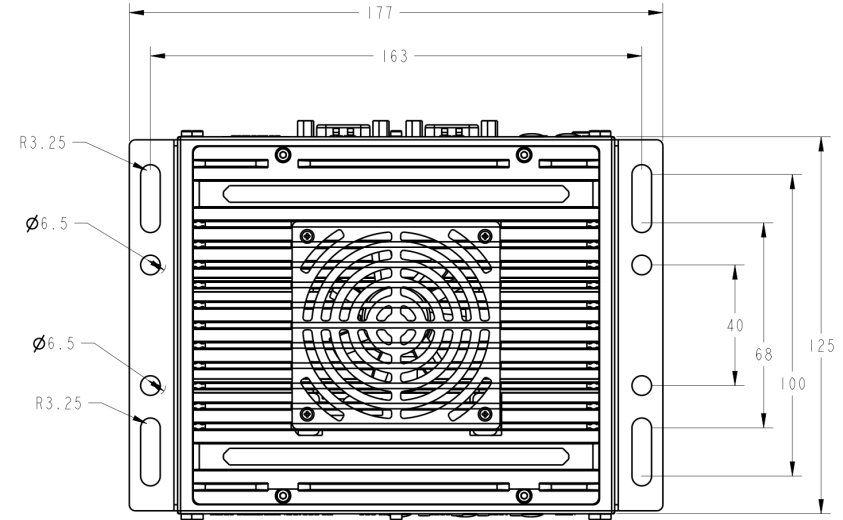
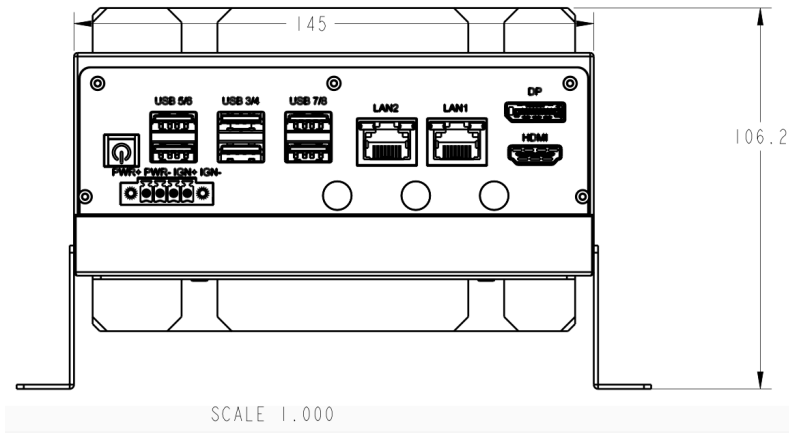
Product Application

ENBIK RugCon-**RVS-D1F/DX1F** is suitable for edge AI computing, machine vision, AGV/AMR, In-Vehicle, rail transit, robot control, smart retail and factory automation, as well as various harsh and extreme edge environments with limited installation space and limited power supply.

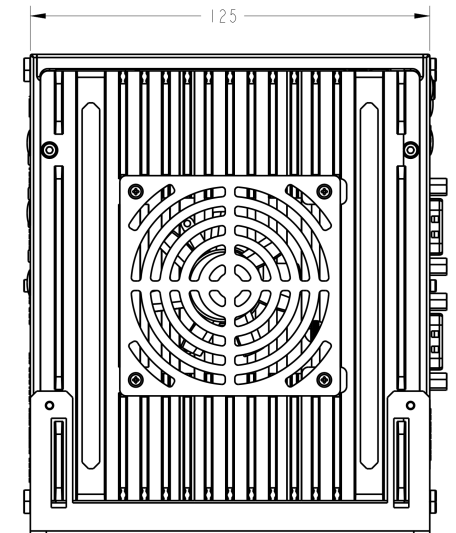
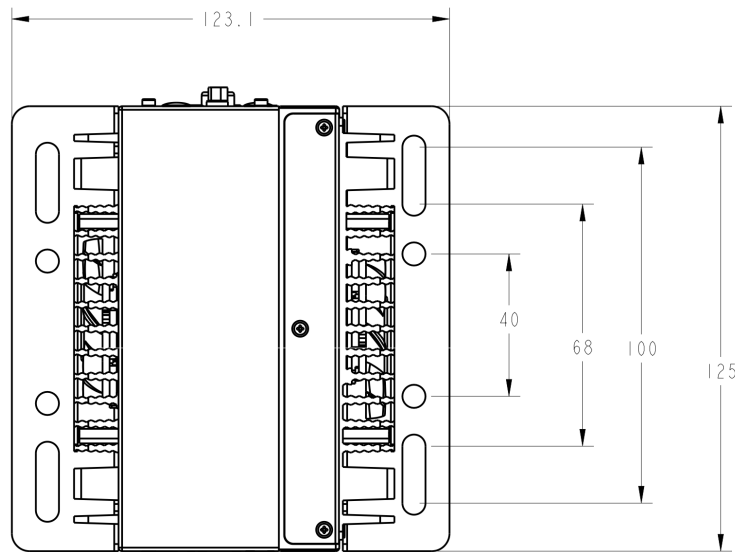
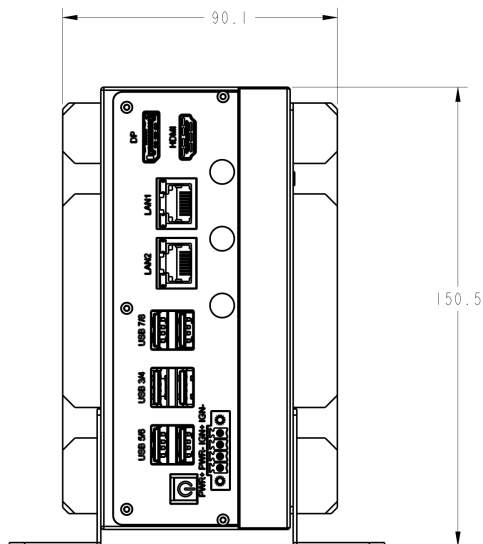


System Dimension : Compact Size : 145 mm x 125 mm x 90.1 mm

1. With Wall Mount Kit Dimension : 177 mm x 125 mm x 106.2 mm



2. With Stand Kit Dimension : 123.1 mm x 150.5 mm x 125 mm



| 12th Gen Intel® Core™ mobile processors (formerly Alder Lake–P) | |
|---|---|
| CPU Module | Description |
| i9-12900H | Intel® Core™ i9-12900H processor with 6 P-cores and 8 E-cores up to 5.0GHz 24MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Alder Lake-P (H-Series,45W) |
| i7-12700H | Intel® Core™ i7-12700H processor with 6 P-cores and 8 E-cores up to 4.7GHz 24MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Alder Lake-P (H-Series,45W) |
| i5-12600H | Intel® Core™ i5-12600H processor with 4 P-cores and 8 E-cores up to 4.5GHz 18MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Alder Lake-P (H-Series,45W) |
| i7-1260P | Intel® Core™ i7-1260P processor with 4 P-cores and 8 E-cores up to 4.7GHz 18MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Alder Lake-P (P-Series,28W) |
| i5-1250P | Intel® Core™ i5-1250P processor with 4 P-cores and 8 E-cores up to 4.4GHz 12MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Alder Lake-P (P-Series,28W) |
| i5-1235U | Intel® Core™ i5-1235U processor with 2 P-cores and 8 E-cores up to 4.4GHz 12MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Alder Lake-P (U-Series,15W) |
| i3-1215U | Intel® Core™ i3-1215U processor with 2 P-cores and 4 E-cores up to 4.4GHz 10MB Intel® Smart Cache Intel® UHD Graphics 64EU Intel® code name Alder Lake-P (U-Series,15W) |

| 13th Gen Intel® Core™ mobile processors (formerly Raptor Lake–P) | |
|--|---|
| CPU Module | Description |
| i9-13900HK | Intel® Core™ i9-13900HK processor with 6 P-cores and 8 E-cores up to 5.4GHz 24MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Raptor Lake-P (H-Series,45W) |
| i7-13800H | Intel® Core™ i7-13800H processor with 6 P-cores and 8 E-cores up to 5.2GHz 24MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Raptor Lake-P (H-Series,45W) |
| i5-13600H | Intel® Core™ i5-13600H processor with 4 P-cores and 8 E-cores up to 4.8GHz 18MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Raptor Lake-P (H-Series,45W) |
| i7-1360P | Intel® Core™ i7-1360P processor with 4 P-cores and 8 E-cores up to 5.0GHz 18MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 96 EUs Intel® code name Raptor Lake-P (P-Series,28W) |
| i5-1350P | Intel® Core™ i5-1350P processor with 4 P-cores and 8 E-cores up to 4.7GHz 12MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Raptor Lake-P (P-Series,28W) |
| i5-1335U | Intel® Core™ i5-1335U processor with 2 P-cores and 8 E-cores up to 4.6GHz 12MB Intel® Smart Cache Intel® Iris® Xe Graphics architecture with 80 EUs Intel® code name Raptor Lake-P (U-Series,15W) |
| i3-1315U | Intel® Core™ i3-1315U processor with 2 P-cores and 4 E-cores up to 4.5GHz 10MB Intel® Smart Cache Intel® UHD Graphics 64EU Intel® code name Raptor Lake-P (U-Series,15W) |

Note 1 : Embedded or other Processors also be supported , please contact our sales channel .

Select the power of artificial intelligence

| AI Chip | GeForce RTX Series | | | QUADRO EMBEDDED | |
|------------------|---|--|--|---|---|
| | RTX4070-8G | RTX4060-8G | RTX4050-6G | RTX2000-8G | A2000-8G |
| Generation | Ada Generation | Ada Generation | Ada Generation | Ada Generation | Ampere |
| Chip Clock | 735MHz (Boost 1230MHz) | 1140MHz (Boost 1470MHz) | 1140MHz (Boost 1605MHz) | 1635MHz(Boost 2115MHz) | 1087MHz(Boost 1552MHz) |
| Memory | 8GB GDDR6 128bit | 8GB GDDR6 128bit | 6GB GDDR6 96bit | GDDR6 8GB 128bit | GDDR6 8 GB 128bit |
| Memory Clock | 2000 MHz | 2000 MHz | 2000 MHz | 1250 MHz | 1375 MHz |
| Memory Bandwidth | 256.0 GB/s | 256.0 GB/s | 192.0 GB/s | 256.0 GB/s | 176.0 GB/s |
| Single Precision | 15.71 TFLOPS | 12.22 TFLOPS | 8.218 TFLOPS | 14.176 TFLOPS | 8.958 TFLOPS |
| TOPS | 321 | 232 | 194 | 232 | - |
| CUDA | 4608 | 3072 | 2560 | 3072 | 2560 |
| Tensor Core | 144 | 96 | 80 | 96 | 80 |
| RT core | 36 | 24 | 20 | 24 | 20 |
| TGP | 65W | 60W | 35W | 56.5W | 38W/50W |
| Dimension | TYPE A : 82 x 70 mm | TYPE A : 82 x 70 mm | TYPE A : 82 x 70 mm | TYPE A : 82 x 70 mm | TYPE A : 82 x 70 mm |

Note 2 : Embedded or other MXM GPU Module also be supported , please contact our sales channel .