

RugCon-RV2-T2F / X2F

Compact Size : 210 mm x 176 mm x 82 mm

Wide DC INPUT 6V~48V

Intel® 12th/13th generation Core i processor (H_45W), 5 network ports / 6 USB / 6 COM / Dual M.2 2280 SSD / 8 IDIO / 2 CAN / 5G / WIFI and ignition / remote power control

Reach to i9-13900H/HK/HE



Features

- ✓ 5x LAN with 4x PoE+ support , RV2-X2F with M12 connectors
- ✓ 2x Isolated CANBus
- ✓ 4x RS232/422/485, 2x RS232
- ✓ 6x USB (2x USB3.2 Gen2 , 1x USB3.0)
- ✓ 1x Mic In/Line Out
- ✓ 4 Channel isolated DI, 4 Channel isolated DO
- ✓ 2x Display (DP+DVI-D)
- ✓ 2x M.2 2280 SATAIII , support Raid 0/1
- ✓ 1x M.2 2242/3052 B key with SIM for 4G/5G/LTE
- ✓ 1x Full Size Mini-PCle with SIM for 4G/5G/LTE/WIFI
- ✓ 3x M.2 Key E Type 2230 for WIFI/BT/GPS
- ✓ Optional for 2x M.2 Key M Type 2280 (PCIE x4 GEN4) especially for AI Card or NVME SSD
- ✓ Wide voltage 6~48V DC input,
- ✓ 1x DC Output Voltage 12V
- ✓ Ignition /remote power control

RugCon-RV2-T2F/X2F SPECIFICATION

Product Name	RugCon Series , RV2-T2F (RJ45 LAN) / RV2-X2F (M12)
Generation	Intel® 14th/ 13th/ 12th-Gen Core™ i9 / i7 /i5 (H_45W)
Memory	Max. Capacity : 64GB DDR5 with 2x SO-DIMM
Display	2x Display : 1x Display Port (4096*2304@60Hz) , 1x DVI (1920*1200@60Hz)
LAN	1x 2.5 GbE with TSN support , 4x 2.5GbE , M12 X-coded connector for LAN Ports (RV2-X2F) Optional for 4 PoE power supply , 802.11 af/at mode
CAN	2x CAN 2.0 (Isolation)
COM	1x Isolated RS232/422/485 (COM5) , 3x RS232/422/485 (COM 1/4/6), 2x RS232 (COM 2/3)
USB	2x USB 3.2 Gen2 / 1x USB3.0 / 3x USB 2.0,
Audio	1x 3.5mm jack for Mic-In and Line-out
DIO	4 Channel isolated DI, 4 Channel isolated DO
Storage	2x M.2 2280 M key (SATA III) , support Raid 0/1
Internal Expansion	1x M.2 2242/3052 B key with SIM slot supporting 4G/5G/LTE 1x Full Size Mini-PCle with SIM slot supporting 4G/5G/LTE 3x M.2 Key E Type 2230 for BT/GPS Optional for 2x M.2 Key M Type 2280 (PCIE x4 GEN4) when using H series CPU, for NVME SSD or M.2 Card Optional for 1x M.2 Key M Type 2280 (PCIE x4 GEN4) when using P series CPU, for NVME SSD or M.2 Card
Mechanical	Dimension : 210(W) x 176(D) x82(H), Weight : 2.35 Kg , Mounting : Wall Mount
Temperature	Operating :Standard : -25° C~70 °C , Extended Option : -40° C~85 °C Storage Temperature : -40°C to 85°C
Humidity	10% to 90% , non-condensing
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 1x 2-pin pluggable terminal block for 12V DC output
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

Interface Introduction

CPU Information

It can be equipped with 45W Intel® 14/13/12th generation Core™ high performance processor. Up to 14 cores / 20 threads, providing ultra-high computing performance.

Interface screw lock

Network ports, USB ports, COM ports, display interfaces, etc. all support screw locks to ensure a stable connection in shock and vibration environments.

2x M.2 2280 M key (SATA III SSD), Raid 0/1

M.2 Expansion for 5G/4G/LTE/WIFI / GPS

1x Full Size Mini-PCle(Pcie ,USB2) with SIM slot
1x M.2 2242/3052 B key(USB3_2) with SIM slot
2x M.2 Key E Type 2230 (PCIe, USB2)

5x RJ45 2.5GbE /
4x PoE+ support

6~48V DC INPUT

200V/1ms Surge Protection,
Reverse-Voltage Protection
Over-Voltage Protection
Under-Voltage Protection
Over-Current Protection

ENBIK

RugCon RV2-T2F

Rugged embedded system

Compact Small : 210(W) x 176(D) x 82 (H) mm

RugCon RV2-X2F

M12 X-code Connectors for LAN Ports

4xUSB (2x USB3.2 Gen2)

Ignition Control

8x Isolated DIO

3x RS232/422/485
1x with Isolation

2xUSB (1x USB3.0)

1x12V
Output Voltage

Isolated CAN bus

Isolated CAN bus

1x RS232/422/484 / 2x RS232

DVI
Mic In / Line Out
DP

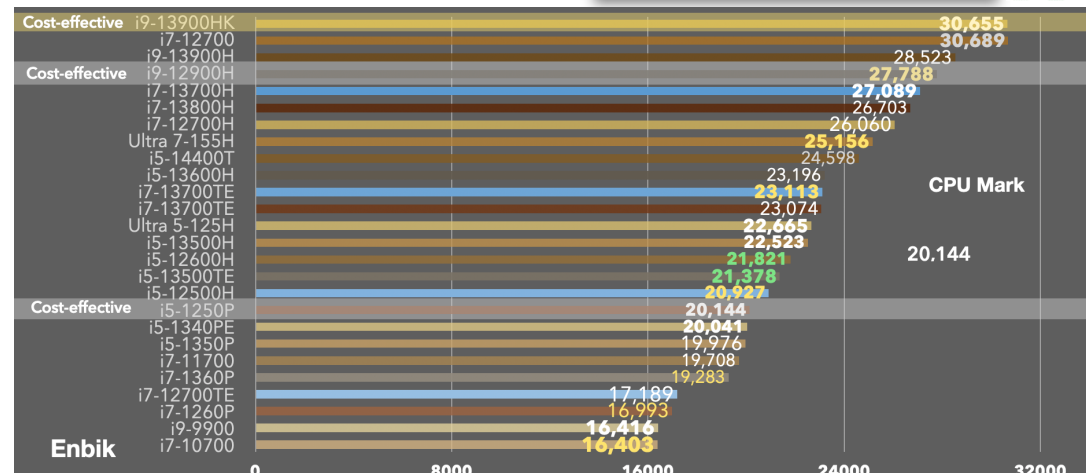
Optional AI acceleration card

26/ 40 TOPS

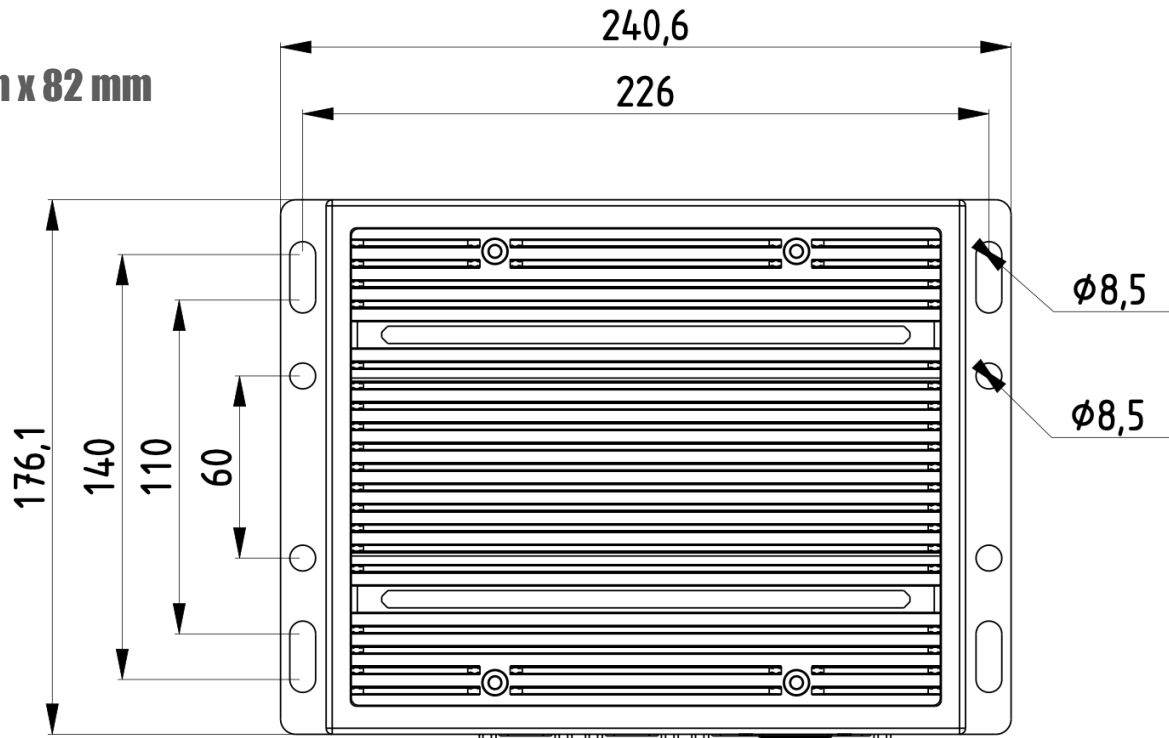
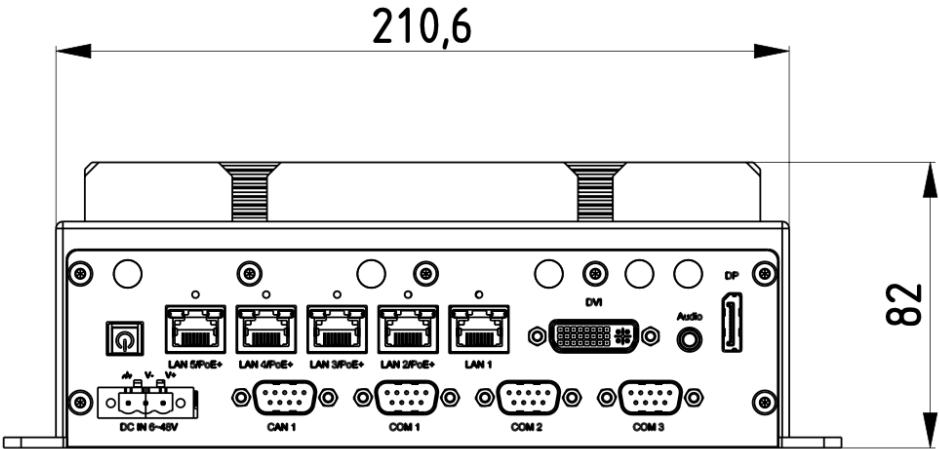
EMPOWERED BY
HAILO

Optional support 2x M.2 2280 Key M (PCIe x4), for AI acceleration card or NVME SSD etc.

Performance



Dimension : Compact Size : 210 mm x 176 mm x 82 mm



CPU Support :

Intel 12th CPU Support List

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)

Intel 13th CPU Support List

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)

Note : We also supply embedded CPU version , so if you need HE(45W) CPU , please contact our sales channel .