

# DRPC-242-ADL-P

- Fanless DIN-Rail Embedded System
- 12/13th Gen Intel® Core™ Solution (up to 14 cores)

## Features

- Supported CPUs:
  - support 12th/13th Generation Intel® Core™ i Processors (Alder Lake-P & Raptor Lake-P)
  - Intel® Core™ i7-1370PE (up to 4.8GHz, 14-core, 28W TDP)
  - Intel® Core™ i5-1340PE (up to 4.5GHz, 12-core, 28W TDP)
  - Intel® Core™ i3-1320PE (up to 4.5GHz, 8-core, 28W TDP)
- 2 x USB 3.2 Gen2 & 4 x USB 2.0
- 2 x RS-232 & 2 x RS-422/485 (with 2.5KV isolation)
- CE/FCC compliant



## Specifications

Model Name		DRPC-242-ADL-P-Ri3ECS	DRPC-242-ADL-P-Ri5ECS	DRPC-242-ADL-P-Ri7ECS
Chassis	Dimensions	81 x 150 x190		
	System fan	Fanless (Fan optional)		
	Chassis Construction	Extruded Aluminum alloys		
Motherboard	CPU	Intel® Core™ i3-1320PE (up to 4.5GHz, 8-core, 28W TDP)	Intel® Core™ i5-1340PE (up to 4.5GHz, 12-core, 28W TDP)	Intel® Core™ i7-1370PE (up to 4.8GHz, 14-core, 28W TDP)
	Chipset	SoC		
	Memory	2 x SO-DIMM slot DDR4 3200 MHz (8 GB pre-installed) (up to 64GB)		
Storage	Hard drive	1 x 2.5" SATA 6Gb/s SSD bay		
I/O Interfaces	USB	2 x USB 3.2 Gen2 4 x USB 2.0		
	Ethernet	1 x 2.5 GbE by Intel® I226LM controller support iAMT 2 x 2.5 GbE by Intel® I226-V controller		
	COM	2 x RS-232 (DB9 with 2.5KV isolation) 2 x RS-232 (optional)		
	DIO	2 x RS-422/485 with AFC (DB9 with 2.5KV isolation) 1 x 12-bit(6-in, 6-out)(optional)		
	Display	1 x lockable HDMI™ 1.4b (up to 4096 x 2160@30Hz) 1 x DP 1.4b (up to 4096 x 2160 @60Hz)		
	TPM	Support Intel PTT		
	Others	1 x Power button, 1 x 2-pin terminal block for Remote Power Button, 1 x Reset button, 1 x AT/ATX switch, 1 x Power LED (green), 1 x HDD LED (yellow), 4-pin external system fan connector		
Expansions	M.2	1 x 2230 A-key (PCIe Gen3 x1/USB 2.0) Support Vpro 1 x 3042/52 B-key (PCIe Gen3 x1/USB 3.2 Gen2/USB 2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key 1 x 2280 M-key (PCIe Gen4 x4)		
	Backplane	1 x PCIe Gen3 x4 (optional)		
Power	Power input	3-pin terminal block: 12 ~ 28 VDC		
	Internal PWR	4-pin 60w @12V		
	Consumption	12V@4.46A (Intel® Core™ i7-1260P with DDR4 8G Memory)		
Reliability	Mounting	DIN-Rail, Wall Mount		
	Operating Temp	-20°C ~ 60°C with air flow (SSD)		
	Storage Temp	-40°C ~ 85°C		
	Humidity	10% ~ 95%, non-condensing		
	Operating shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis (SSD)		
	Operating vibration	10-500 Hz, 1.04 Grms, random, 1 hr/axis (SSD)		
	Weight	1.88 / 2.66KG		
Safety/EMC	CE, FCC, UKCA			
OS	Supported OS	Microsoft® Windows 10 / 11, Linux		

### Built-in 12th Gen Intel® CPU

12th Gen Intel® Core™ mobile processors for IoT applications are the first Intel® Core™ processors to feature performance hybrid architecture with Intel® Thread Director. 12th Gen Intel® Core™ mobile processors drive up to 1.07x gain in single-thread performance and up to 1.29x gain in multithread performance and up to 2.47x gain in 3D graphics performance and up to 2.77x times faster in GPU image classification inference performance vs. 11th Gen Intel® Core™ processors.

CPU Mark Rating As of 20th of March 2023 - Higher results represent better performance

Intel Core i7-1260P		17,246
Intel Core i7-1185G7 @ 3.00GHz		10,634

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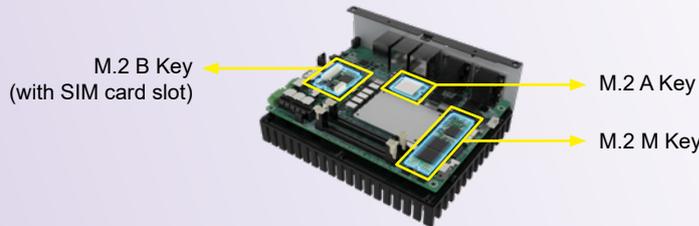
### Built-in Intel® I226-LM (V) 2.5GbE Controllers

three RJ-45 Ethernet ports on the I/O panel through Intel® I226LM/I226-V GbE controllers provide up to 2.5G network transmission rate.

### USB 3.2 Gen 2 Ports, up to 10Gb/s

### Internal M.2 Expansion

The system board has 1 M.2 A Key, 1 M.2 B key, and 1 M.2 M Key. A key supports Wi-Fi or Bluetooth expansion; M Key supports NVME storage, and B Key (with SIM card holder) supports 4G/5G modules or accelerator cards.



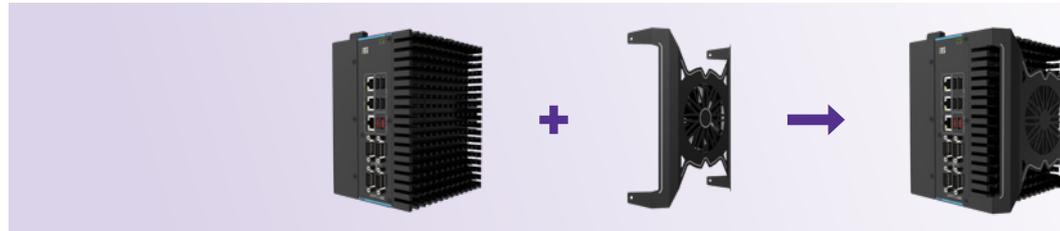
### Support Chassis Expansion

The expansion chassis provides one PCIe x4 slot for IEI Mustang accelerator card.

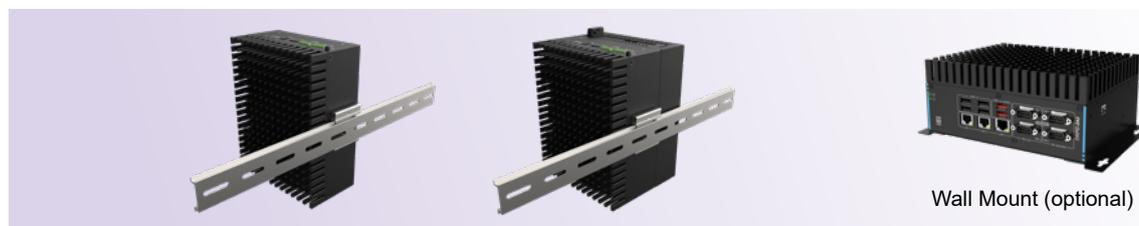


### External Fan

Installing an external fan helps to increase system performance in harsh environment.



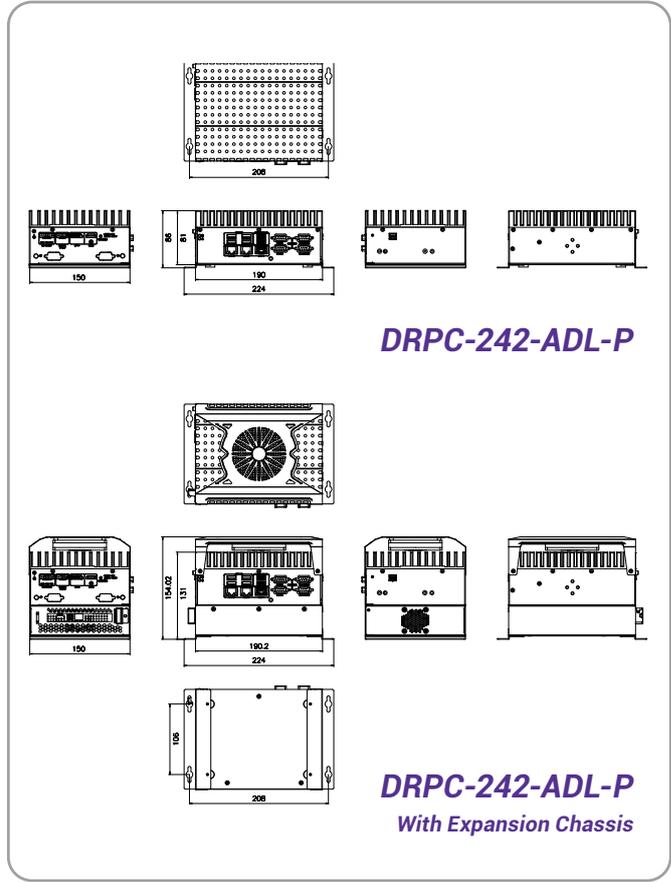
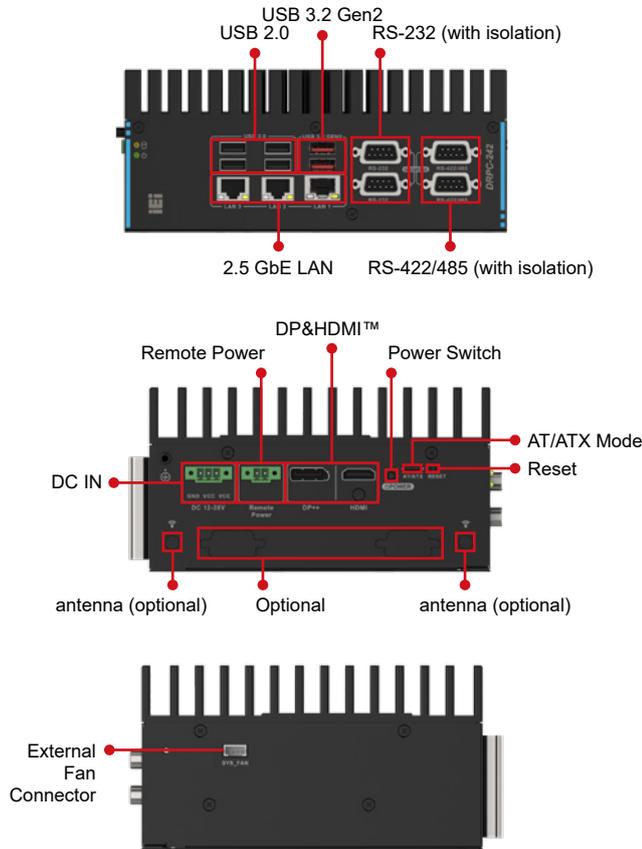
### Support DIN-rail Mount



Wall Mount (optional)

Fully Integrated I/O

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-242-ADL-P-RI3ECS-R11	Embedded system with 13th Gen Intel® Core™ i3-1320PE, TDP 28W, 8GB DDR4 pre-installed memory, HDMI™/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~28V DC, RoHS
DRPC-242-ADL-P-RI5ECS-R11	Embedded system with 13th Gen Intel® Core™ i5-1340PE, TDP 28W, 8GB DDR4 pre-installed memory, HDMI™/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~28V DC, RoHS
DRPC-242-ADL-P-RI7ECS-R11	Embedded system with 13th Gen Intel® Core™ i7-1370PE, TDP 28W, 8GB DDR4 pre-installed memory, HDMI™/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~28V DC, RoHS

Options

Item	Part No.	Description
WIFI Module	EMB-WIFI-KIT02I3-R10	2T2R M.2 wifi module kit for embedded system, IEEE802.11a/b/g/n/ac/ax, 1 x M.2 AE Key Wireless LAN & Bluetooth 5.2; Intel; AX210.NGWG Module, 2 x RF cable, 2 x Antenna; RoHS
External FAN Module	SF-DRPC-240-R10	External fan for DRPC-24x Serial
Expansion Chassis	TXC-DRPC-240-1S-R10	DRPC-240 Series 1 Slot Expansion Chassis with Riser Card
DIO Cable	32031-000601-100-RS	ROUND CABLE;DIO CABLE;;2;250mm;28AWG;(A)D-SUB 15P MALE;(B)DU PONT 2*7P P=2.0
COM Cable	32205-005401-100-RS	RS-232/422/485 CABLE; 250mm; (A)D-SUB 9P MALE; (B)DU PONT 2 x 5P P=2.0 FEMALE
Power Cord	32702-000200-100-RS	POWER CORD; EUROPEAN CODE(VDE); 1800mm; (A)PLUG:SH-005(16A 250V);(B)CONNECTOR:C13(SH-006, 10A250V)
DC Power Conversion Cable	32102-054800-100-RS	WIRE CABLE;POWER CABLE;;2;200mm;18AWG;300V;(A)POWER DIN 4P FEMALE;(B)TERMINAL BLOCK-3P P=3.5;Wins Precision;C24210816-0;RoHS
Power Adapter	63040-010180-200-RS <sup>1</sup>	Adapter Power;FSP;FSP180-ABAN3;9NA1804008;Active PFC;Vin:90~264VAC;180W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.5W);Vout:19VDC;Din 4Pin/lock;CCL;RoHS
Power Adapter	63040-010120-300-RS <sup>1</sup>	Adapter Power;FSP;FSP120-AHAN3;9NA1206708;Active PFC;Vin:90~264VAC;120W;Dim:75.6*151.3*25.4mm;Plug=6.5mm;Cable=1500mm;Erp(NO LOAD 0.15W);Vout:12VDC;Din 4Pin/lock;CCL;RoHS
Wall Mount Kit	41020-0578C2-00-HF <sup>2</sup>	WALL MOUNT BRACKET; NCT processing formation; DRPC-24x Series
OS	DRPC-242-ADL-P-W10IOT21-H	OS Image with Windows® 10 Enterprise High End 64-bit 2021 LTSC for DRPC-242-ADL-P i7 Series, Language version: English, Simplified Chinese, Traditional Chinese and Japanese, with DVD-ROM, RoHS
	DRPC-242-ADL-P-W10IOT21-V	OS Image with Windows® 10 Enterprise Value 64-bit 2021 LTSC for DRPC-242-ADL-P Celeron, i3 & i5 Series, Language version: English, Simplified Chinese, Traditional Chinese and Japanese, with DVD-ROM, RoHS

<sup>1</sup> The power adapter needs to be used with the 32102-054800-100-RS DC Power Conversion Cable or process the wire by yourself

<sup>2</sup> Wall Mount Bracket quantity required 2.

Packing List

1 x DIN-Rail mounting kit	1 x Screw pack	1 x Terminal block
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