

# DRPC-242-ADL-P

- Fanless DIN-Rail Embedded System
- Alder Lake 12th Gen Intel® Core™ Solution (up to 12 cores)

## Features

- Supported CPUs:
  - Intel® Core™ i7-1260P (up to 4.7GHz, 12-core, 28W TDP)
  - Intel® Core™ i5-1240P (up to 4.4GHz, 12-core, 28W TDP)
  - Intel® Core™ i3-1220P (up to 4.4GHz, 10-core, 28W TDP)
  - Intel® Celeron® 7305 (5-core, 15W 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-CCS-R10	DRPC-242-ADL-P-i3CS-R10	DRPC-242-ADL-P-i5CS-R10	DRPC-242-ADL-P-i7CS-R10
Chassis	Dimensions	81 x 150 x 190			
	System fan	Fanless (Fan optional)			
	Chassis Construction	Extruded Aluminum alloys			
Motherboard	CPU	Intel® Celeron® 7305 (5-core, 15W TDP)	Intel® Core™ i3-1220P (up to 4.4GHz, 10-core, 28W TDP)	Intel® Core™ i5-1240P (up to 4.4GHz, 12-core, 28W TDP)	Intel® Core™ i7-1260P (up to 4.7GHz, 12-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 2.5GbE by Intel® I225LM support iAMT 2 x 2.5GbE by Intel® I225V (colay I225LM)			
	COM	2 x RS-232 (DB9 with 2.5KV isolation) 2 x RS-232 (optional) 2 x RS-422/485 with AFC (DB9 with 2.5KV isolation)			
	DIO	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 12<sup>th</sup> 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

PassMark Software © 2008-2023

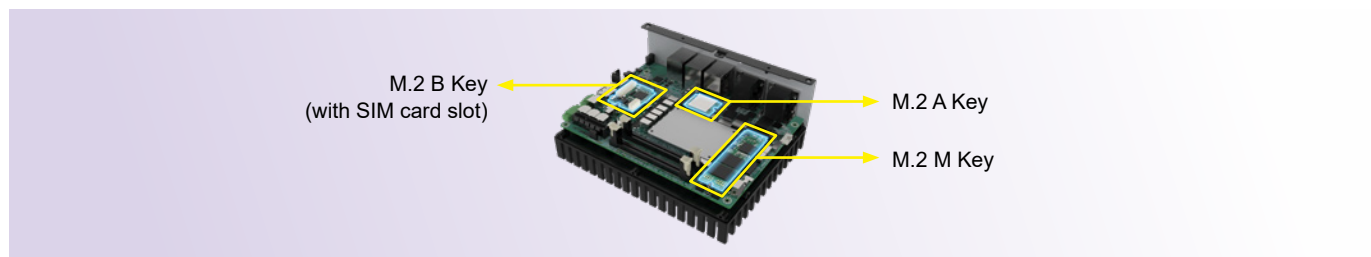
## Built-in Intel® I225-LM (V) 2.5GbE Controllers

three RJ-45 Ethernet ports on the I/O panel through Intel® I225LM/I225-V GbE controllers provide up to 2.5G network transmission rate.

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

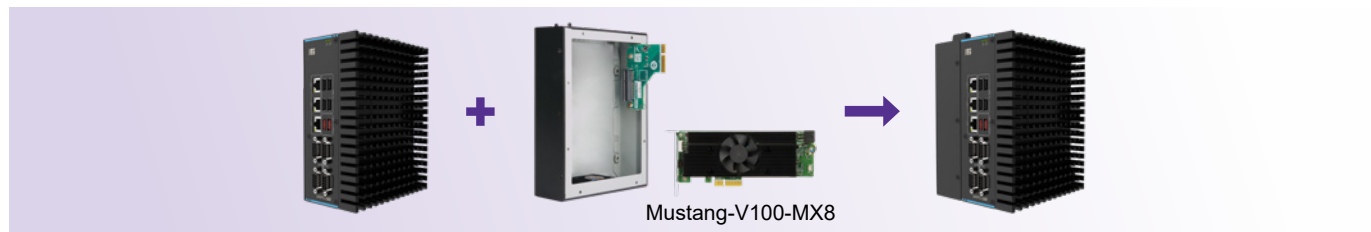
## Internal M.2 Expansion

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.

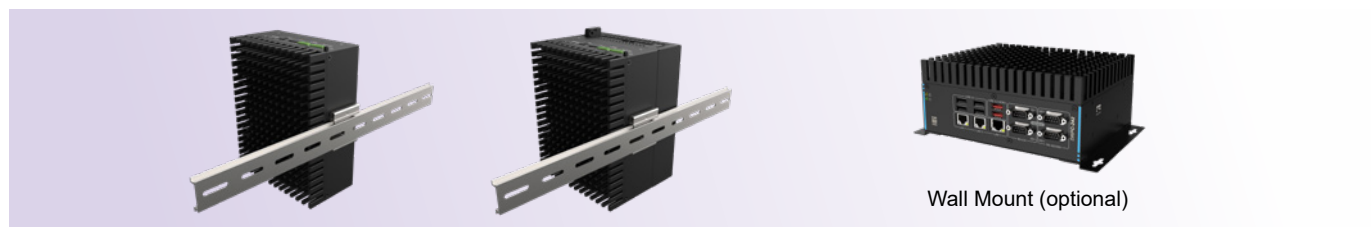


## External Fan

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

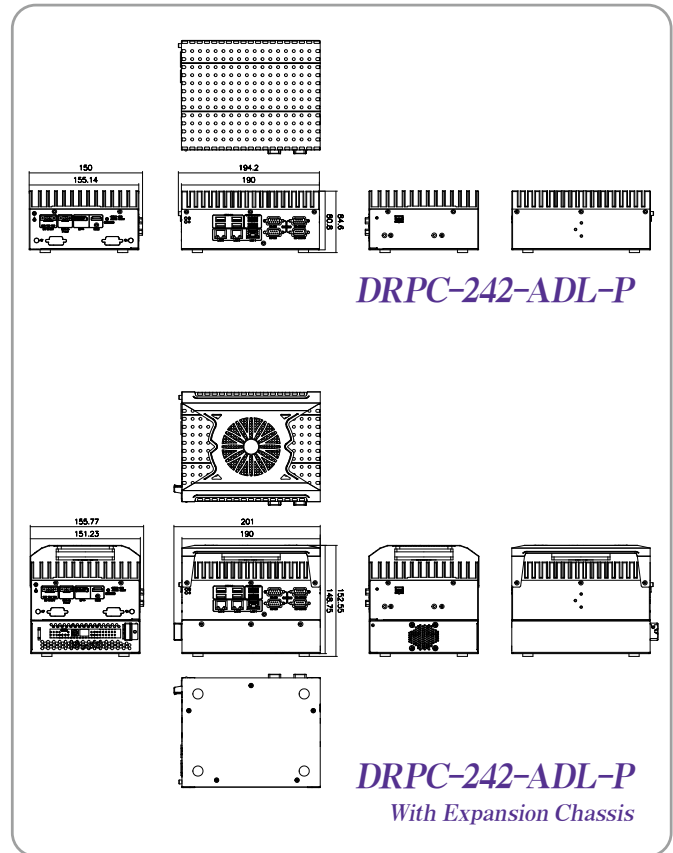
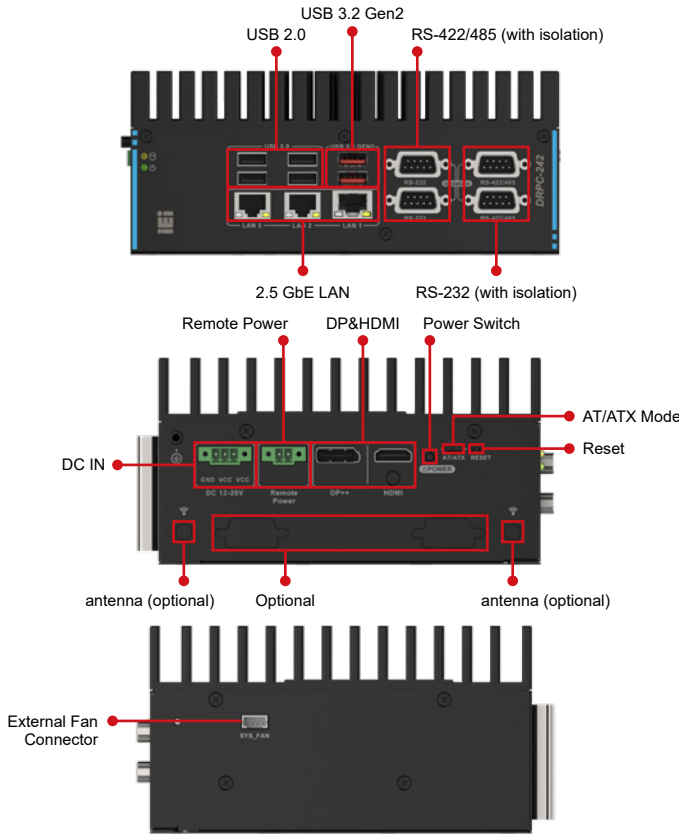


## Support DIN-rail Mount



Fully Integrated I/O

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
DRPC-242-ADL-P-CCS-R10	Embedded system with 12th Gen Intel® Celeron® G7305, TDP 15W, 8GB DDR4 pre-installed memory, HDMI/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~24V DC, RoHS
DRPC-242-ADL-P-i3CS-R10	Embedded system with 12th Gen Intel® Core™ i3-1220P, TDP 28W, 8GB DDR4 pre-installed memory, HDMI/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~24V DC, RoHS
DRPC-242-ADL-P-i5CS-R10	Embedded system with 12th Gen Intel® Core™ i5-1240P, TDP 28W, 8GB DDR4 pre-installed memory, HDMI/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~24V DC, RoHS
DRPC-242-ADL-P-i7CS-R10	Embedded system with 12th Gen Intel® Core™ i7-1260P, TDP 28W, 8GB DDR4 pre-installed memory, HDMI/DP, 3 x 2.5GbE LAN, 4 x COM, 6 x USB, 12~24V DC, RoHS
DRPC-242-ADL-P-W10IoT21-H-R10	OS Image with Windows® 10 Enterprise High End 64-bit 2021 LTSC for DRPC-242-ADL-P i7 Series, with DVD-ROM, RoHS
DRPC-242-ADL-P-W10IoT21-V-R10	OS Image with Windows® 10 Enterprise Value 64-bit 2021 LTSC for DRPC-242-ADL-P Celeron,i3 & i5 Series, with DVD-ROM, RoHS

Options

Item	Part No.	Description
WIFI Module	EMB-WIFI-KIT0213-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	32031-000600-100-RS	ROUND CABLE;DIO CABLE;;2;150mm;28AWG;300V;(A)D-SUB 15P MALE;(B)DU PONT 2 x 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
Accelerator Card	Mustang-V100-MX8-R11 <sup>2</sup>	Computing Accelerator Card with 8 x Movidius Myriad X MA2485 VPU, PCIe Gen 2 x4 interface, RoHS
Wall Mount Kit	41020-0578C2-00-HF <sup>3</sup>	WALL MOUNT BRACKET; NCT processing formation; DRPC-24x Series

<sup>1</sup> The power adapter needs to be used with the 32102-054800-100-RS power cord or process the wire by yourself  
<sup>2</sup> For IEI Mustang accelerator card, it is suggested to use a 180W (or above) power adapter (63040-010180-200-RS 180W is recommended), and the Mustang can only be used in the dual-layer model  
<sup>3</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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