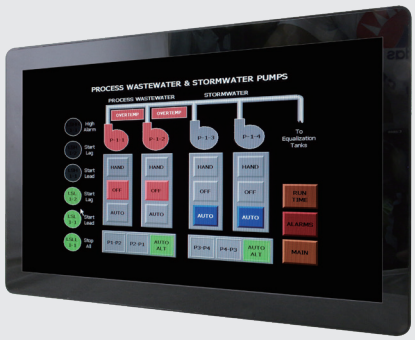
ARC-18W42

18.5" 13th Generation Intel® Core™ 3/5/7 Processors
Fanless Rugged Touch Panel PC with IET Expansion



Features

- Intel® 13th Gen Raptor Lake-PS Core™ 3/5/7 Processor (LGA1700 Socket Type)
- Full flat front panel with projected capacitive touch supports multi touch
- One 262-pin SODIMM socket max. up to 32GB DDR5 4800MHz
- 3 x USB3.2, 1 x USB2.0, 1 x USB Type C, 1 x COM
- Dual Intel Gigabit LAN
- 3 x M.2 slots (Key-B 2242/3052/2280, Key-E 2230, Key-M 2280)
- Support Wi-Fi / BT / 4G / 5G (by option)
- Wide voltage +12V ~ +24V input, ErP power
- Available expansion for audio, USB, COM, HDMI, MPCIe, GPIO, CAN bus
- IP65 compliant front panel, IP41 rear box (except I/O)

+12V ~ +24V | PCAP | Fanless | Wide Temp. -10°C ~ 50°C | Front IP65 Rear IP41

Specifications

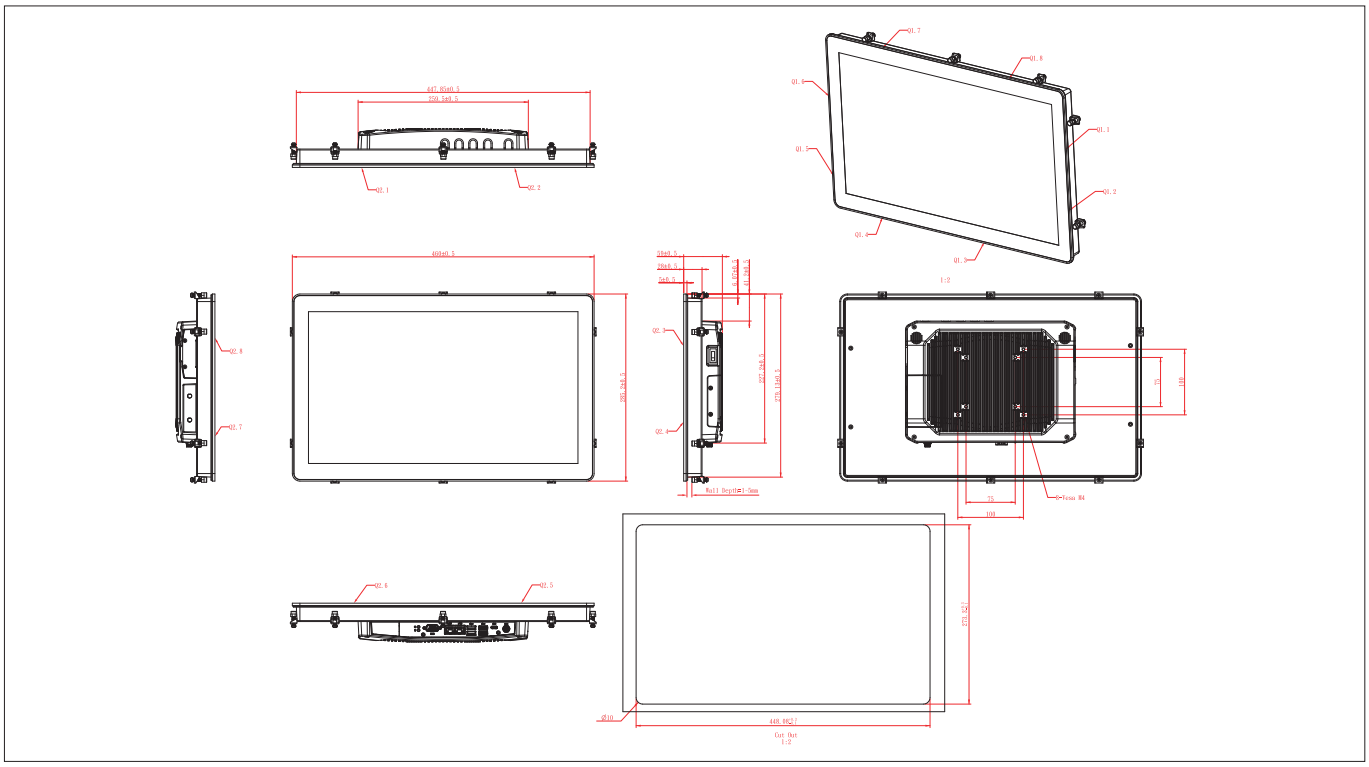
System Information	
Processor	Intel® 13th Gen Raptor Lake-PS Core™ 3/5/7 Processor (LGA1700 Socket Type) Intel® Core™ 3 processor 100UL (10M Cache, up to 4.50 GHz) Intel® Core™ 5 processor 120UL (12M Cache, up to 4.60 GHz) Intel® Core™ 7 processor 160UL (12M Cache, up to 5.20 GHz)
System Memory	1 x 262-pin SODIMM socket max. up to 32GB DDR5 4800MHz
I/O Chipset	EC ITE IT5782VG
Watchdog Timer	H/W reset, 1sec. ~ 65535min. and 1sec. or 1min./step
H/W Status Monitor	Monitoring CPU & system temperature and voltage
TPM	Onboard NuvoTon NPCT754AABYX support TPM 2.0
SBC	HID-2340 SBC
CPU Cooler (Type)	Fanless heatsink
Other	7 x Knockouts for antenna mounting *5 from rear cover + 2 from IET bracket
Expansion	
Expansion	1 x M.2 Key B 3042/3052/2280 (PCIe, USB3, SATA) for 4G/5G/Capture Card 1 x M.2 Key E 2230 (PCIex1, USB2.0) for WIFI 1 x M.2 Key M 2280 (PCI-e x4) slot for storage 1 x 80-pin IET interface
Storage	
Storage	1 x M.2 Key M 2280 (PCI-e x4) slot for storage)
Display	
Graphic Chipset	Intel® Raptor Lake-PS integrated graphics
Spec. & Resolution	HDMI: Max. Resolution 4096x2160 @ 24Hz(optional by IET module)
Audio	
Audio Codec	Realtek ALC888S
Speaker Output	2 x 2W
Ethernet	
LAN Chipset	1 x Intel® I225LM 2.5 Gigabit Ethernet 1 x Intel® I226LM 2.5 Gigabit Ethernet
Ethernet Interface	Intel® I225LM: 10/100/1000/2.5G Base-Tx GbE compatible Intel® I226LM: 10/100/1000/2.5G Base-Tx GbE compatible
Power Requirement	
DC Input	+12V ~ +24V
DC Input Connector	Lockable DC Jack (default) Optional for phoenix connector
ACPI	Single power ATX support S0, S3, S4, S5 and ACPI 3.0 compliant
Software Support	
OS	Win10 / Win11 / Linux
Certification	
Certification Information	CE / FCC Class A / VCCI

Panel	
LCD Size	18.5", 16:9
Display Type	FHD
Resolution	1920 x 1080
Pixel Pitch	0.213mm (H) x 0.213mm (V)
Luminance	500 cd/m²
Contrast Ratio	1200
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	30 ms
Backlight	LED
Touch Type	Projective capacitive multi-touch up to 10 points
Touch Light Transmission	85%
Touch Controller	ILITEK (ILI2510)
External I/O	
USB	3 x USB3.2, 1 x USB2.0, 1 x USB Type C
LAN Port	2 x RJ-45
COM Port	1 x RS-232/422/485
System Control	
LED Indicator	HDD LED, power LED
Mechanical & Environmental	
Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F)
Storage Temp.	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	40°C @ 95% Relative humidity, non-condensing
Dimension (W x L x H)	460 x 285.2 x 59 mm
Weight	4.6 Kg
Vibration Test	With SSD/M.2 SSD : 2Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 30mins/axis
Shock Test	Operating with SSD/M.2 : MIL-STD-810G, method 516.6, procedure I, functional shock=20G
Drop Test	ISTA 2A, IEC-60068-2-32 Test:Ed
IP Rating	Front panel IP65, Back cover IP41 (except I/O)
Mounting Kit	Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm Panel mount with mounting kits
Power Mode	AT/ATX (ATX is default)
System Fan	Fanless
Construction - Front	Die casting with cover lens
Construction - Rear	Black die casting
Component	
Adapter	Input: 100-240V~,2.0A, 50-60Hz Output: 120W adapter (AC/DC adapter 24V/5A 120W, Screw Type)

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Mechanical Drawing



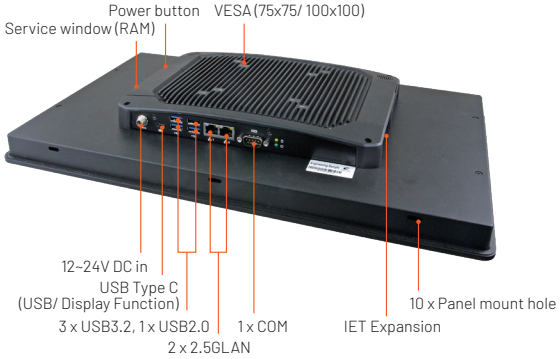
Ordering Information

P/N	Touch Type	Processor	Memory	Storage	Resolution	Luminance	COM	USB	LAN	Power Input	Operating Temp.	OS Support
ARC-18W42-100-B1R	PCAP	Intel® Core™ 3 processor 100UL	1 x 262-pin DDR5 4800MHz SO-DIMM	1 x M.2 Key B 3042/3052/2280 for SATA 1 x M.2 Key M 2280 (PCI-e x4) for NVMe	1920 x 1080	500	1	4, 1 Type C	2	+12V ~ +24V	-10°C ~ 50°C	Win10 Win11 Linux
ARC-18W42-120-B1R	PCAP	Intel® Core™ 5 processor 120UL	1 x 262-pin DDR5 4800MHz SO-DIMM	1 x M.2 Key B 3042/3052/2280 for SATA 1 x M.2 Key M 2280 (PCI-e x4) for NVMe	1920 x 1080	500	1	4, 1 Type C	2	+12V ~ +24V	-10°C ~ 50°C	Win10 Win11 Linux
ARC-18W42-160-B1R	PCAP	Intel® Core™ 7 processor 160UL	1 x 262-pin DDR5 4800MHz SO-DIMM	1 x M.2 Key B 3042/3052/2280 for SATA 1 x M.2 Key M 2280 (PCI-e x4) for NVMe	1920 x 1080	500	1	4, 1 Type C	2	+12V ~ +24V	-10°C ~ 50°C	Win10 Win11 Linux

Packing List

Item	P/N	Quantity
AC/DC adapter 24V/5A 120W, Screw Type	ACC-ADP-120N-05R	1
M4 x 6mm Screw for VESA	ACC-SCREW-0002R	4
Screw-Round M4 x 25mm	E1935052510R	10
Bracket for Panel Mount SECC	E195BKAR120915R	10
Plastics spacer support D7.7 x 8	E199PS00002R	10

I/O Overview



Optional Items

Item	P/N
4 x USB 3.0 Kit for ARC Series	ACC-ARC-USB-01R
HDMI + 5.1 CH Audio Kit for ARC Series	ACC-ARC-AUDIO-01R
HDMI + MPCIE w/SIM Kit for ARC Series	ACC-ARC-MPCIE-02R
2 x Isolated RS-232 Kit for ARC Series	ACC-ARC-COM-01R
3 x RS-232 Kit for ARC Series	ACC-ARC-COM-02R
2 x RS-232 + USB Kit for ARC Series	ACC-ARC-COM-03R
2 x RS-232 + LAN Kit for ARC Series	ACC-ARC-COM-04R
12-bit GPIO + 2-pin CAN Bus Kit for ARC Series (MCU FW 2.1)	ACC-ARC-GPIO-03R
OBDII - CAN Bus Kit for ARC Series (OBDII/EOBD for Small Vehicle)	ACC-ARC-OBDII-01R
OBDII - CAN Bus Kit for ARC Series (J1939J1708 for Large Vehicle)	ACC-ARC-OBDII-02R
OBDII - CAN Bus Kit for ARC Series (ISO15765-4 for Special Large Vehicle)	ACC-ARC-OBDII-03R
2 x HDMI output + USB2.0 for ARC Series	AUX-080-HDMI-B1R
LAN + Mini PCIe + SIM for ARC Series	AUX-086-LAN-A01R
USA Power Cord	E1702031833R
EU Power Cord	E1702031000R
Japan Power Cord	E1702031834R
UK Power Cord	E170P060380R
Australia Power Cord	E1702031831R