

ARC-1238-B

12.1" 11th Generation Intel® Core™ i3/i5/i7 Processors
Fanless Rugged Touch Panel PC with IET Expansion



Features

- 11th Generation Intel® Core™ i3/i5/i7 Processors
- 1 x 260-pin SODIMM socket max. up to 32GB DDR4 3200MT/s
- 4 x USB3.2, 2 x COM
- Dual Intel Gigabit LAN
- 2 x M.2 slots (Key-B 2242/3042/3052, Key-E 2230)
- Wide voltage +12V ~ +24V input, ErP power
- Available expansion for audio, USB, COM, HDMI, PCIe, GPIO, CAN bus
- IP65 compliant front panel, IP41 rear box
- 10 point multi touch
- TPM 2.0 function
- Fanless operation from -10°C ~ 50°C (14°F ~ 122°F)



+12V ~ +24V



PCAP
multi-touch



Fanless



Wide Temp.
-10°C ~ 50°C



Front IP65
Rear IP41

Specifications

System Information

Processor	11th Generation Intel® Core™ i3/i5/i7 Processors Intel® Core™ i3-1115G4E Processor, 6M Cache, up to 3.00 GHz Intel® Core™ i5-1145G7E Processor, 8M Cache, up to 2.60 GHz Intel® Core™ i7-1185G7E Processor, 12M Cache, up to 2.80 GHz
System Memory	1 x 260-pin SODIMM socket max. up to 32GB DDR4 3200MT/s
I/O Chipset	EC ITE IT8528E
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	ARC-TGL
CPU Cooler (Type)	Fanless heatsink
Other	7 x Knockouts for antenna mounting

Expansion

Expansion	1 x M.2 Key-B 2242/3042/3052 with SIM card slot Support SATA3 / PCIe & USB for LTE(4/5G) / NVMe (BOM option for PCIe 2); 1 x M.2 Key-E 2230 Support PCIe/USB/ CNVi Wi-Fi/BT module; 1 x 80-pin IET interface
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Storage

Storage	1 x 2.5 Drive bay (7mm HDD restricted)
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Display

Graphic Chipset	Intel® Tiger Lake UP3 SoC integrated graphics supports optional dual display
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® I219LM Gigabit Ethernet PHY 1 x Intel® I225LM 2.5 Gigabit Ethernet
Ethernet Interface	Intel® I219LM : 10/100/1000 Base-Tx GbE compatible Intel® I225LM: 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
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Certification

Certification Information	CE / FCC Class B / VCCI
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Panel

LCD Size; Display Type	12.1", 4:3; XGA
Resolution	1024 x 768
Pixel Pitch	0.240mm (H) x 0.240mm (V)
Luminance	600 cd/m ²
Contrast Ratio	1000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)
Response time	13 ms
Backlight	LED
Touch Type	Projective capacitive multi-touch up to 10 points
Touch Light Transmission	89%
Touch Controller	USB touch (EETI)

External I/O

USB	4 x USB 3.2
LAN Port	2 x RJ-45
COM Port	1 x RS-232/422/485, 1 x RS-232

Internal I/O

SATA	1 x SATA III
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System Control

LED Indicator	HDD LED, power LED
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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)	292.86 x 225.4 x 51.5mm
Weight	2.4 Kg
Vibration Test	With SSD/mSATA : 3Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 30 mins/axis
Shock Test	Operating with SSD/CFast/mSATA : 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
Mounting Kit	Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm Panel mount with mounting kits
Power Mode	AT/ATX (ATX is default)
Construction	Die casting with cover lens (Front), Black die casting (Rear)

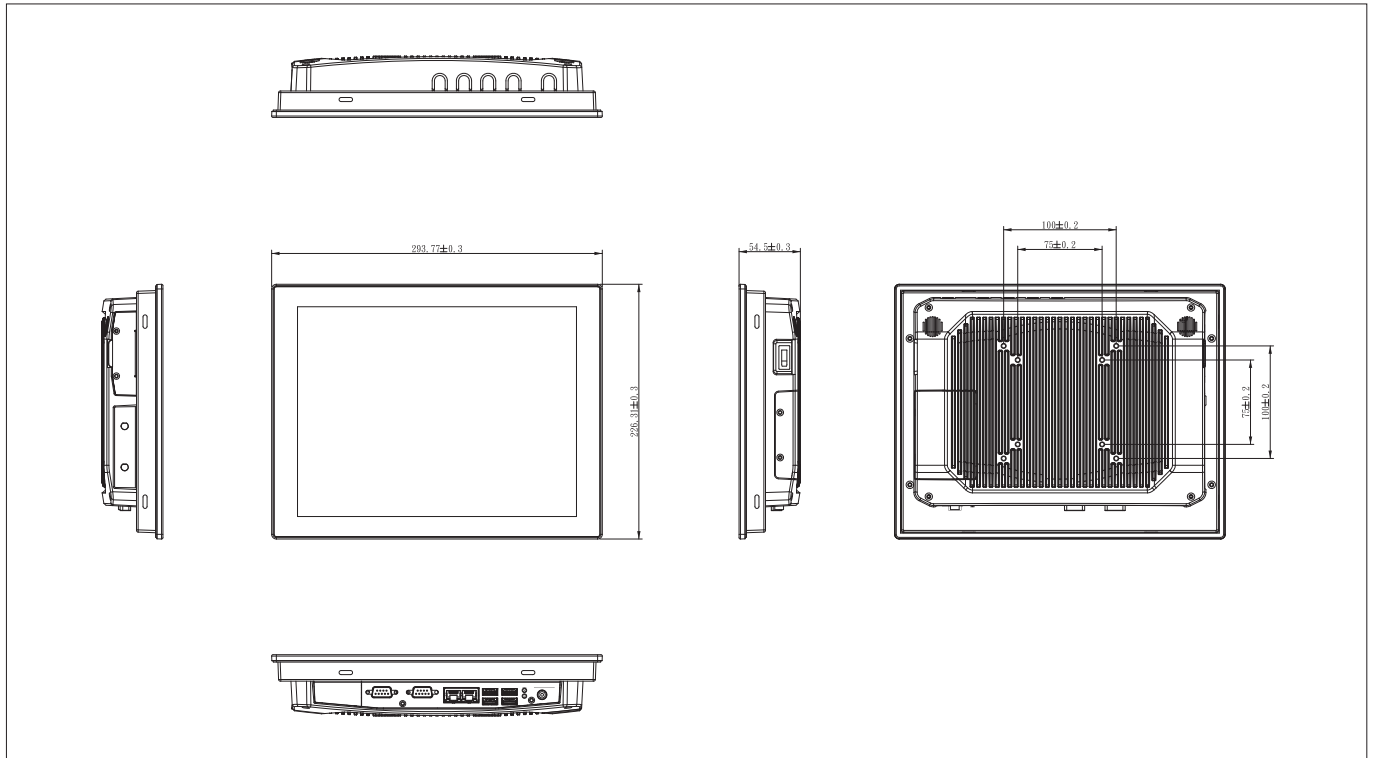
Component

Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W adapter (19V @ 3.78A adapter) AC-DC adapter
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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-1238-57E-B1-1R	PCAP	i5-1145G7E	1 x 260-pin DDR4 3200 MHz SO-DIMM	1 x 2.5 Drive bay	1024 x 768	600	2	4	2	+12V ~ +24V	-10°C ~ 50°C	Win10 / Win11 / Linux

Packing List

Item	P/N	Quantity
AC/DC adapter 19V/3.78A Screw Type	ACC-ADP-072N-02R	1
HDD shockproof Rubber	ACC-RUBBER-0001R	4
M4 x 6mm Screw for VESA	ACC-SCREW-0002R	4
M3 x 8mm Screw for HDD	ACC-SCREW-0005R	4
Screw-Round M4x25mm	E1935052510R	8
Bracket for Panel Mount	E195BKAR120915R	8
Plastics spacer support D7.7x8	E199PS00002R	8

Optional Items

Item	P/N
4 x USB 3.0 IET module for ARC-1535/38	ACC-ARC-USB-01R
HDMI + 5.1 CH audio IET module for ARC-1535/38	ACC-ARC-AUDIO-01R
HDMI + MPCIE w/SIM IET module for ARC-1535/38	ACC-ARC-MPCIE-02R
2 x Isolated RS-232 IET module for ARC-1535/38	ACC-ARC-COM-01R
3 x RS-232 IET module for ARC-1535/38	ACC-ARC-COM-02R
2 x RS-232 + USB IET module for ARC-1535/38	ACC-ARC-COM-03R
2 x RS-232 + LAN IET module for ARC-1535/38	ACC-ARC-COM-04R
12-bit GPIO + 2-pin CAN bus IET module for ARC-1535/38	ACC-ARC-GPIO-01R
OBDII - CAN bus IET module for ARC-1535/38 (OBDII/E0BD for small vehicle)	ACC-ARC-OBDII-01R
OBDII - CAN bus IET module for ARC-1535/38 (J1939/J1708 for large vehicle)	ACC-ARC-OBDII-02R
OBDII - CAN bus IET module for ARC-1535/38 (ISO15765-4 for special large vehicle)	ACC-ARC-OBDII-03R
USA Power Cord	E1702031835R
EU Power Cord	E170203183DR
Japan Power Cord	E170203183BR
UK Power Cord	E170P060370R
Australia Power Cord	E170P060392R

I/O Overview

