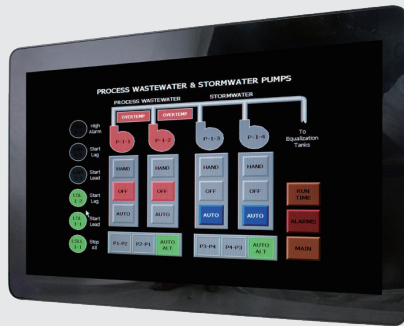


ARC-21W38

21.5" 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
- Full flat front panel with projected capacitive touch supports multi touch
- One 260-pin SODIMM sockets supports up to 32GB DDR4 3200 SDRAM
- 4 x USB3.2, 2 x COM; Dual Intel Gigabit LAN
- 2 x M.2 slots (Key-B 2242/3042/3052, Key-E 2230)
- Support Wi-Fi / BT / 4G / 5G (by option)
- 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
- With panel mount kits included
- TPM 2.0 function



+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 DDR4 3200MHz SO-DIMM up to 32 GB
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
Other	7 x Knockouts for antenna mounting *5 from rear cover + 2 from IET bracket

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

Panel

LCD Size/Display Type	21.5", 16:9; Full HD
Resolution	1920 x 1080
Pixel pitch	247.95um (H) x 247.95um (V)
Luminance	500 cd/m²
Contrast ratio	1000
Viewing angle	89 (U), 89 (D), 89 (L), 89 (R)
Response time	14 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 3.0
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)	538.05 x 341.05 x 64mm
Weight	7.3 Kg
Vibration Test	With SSD/M.2 SSD : 3Grms, 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
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)

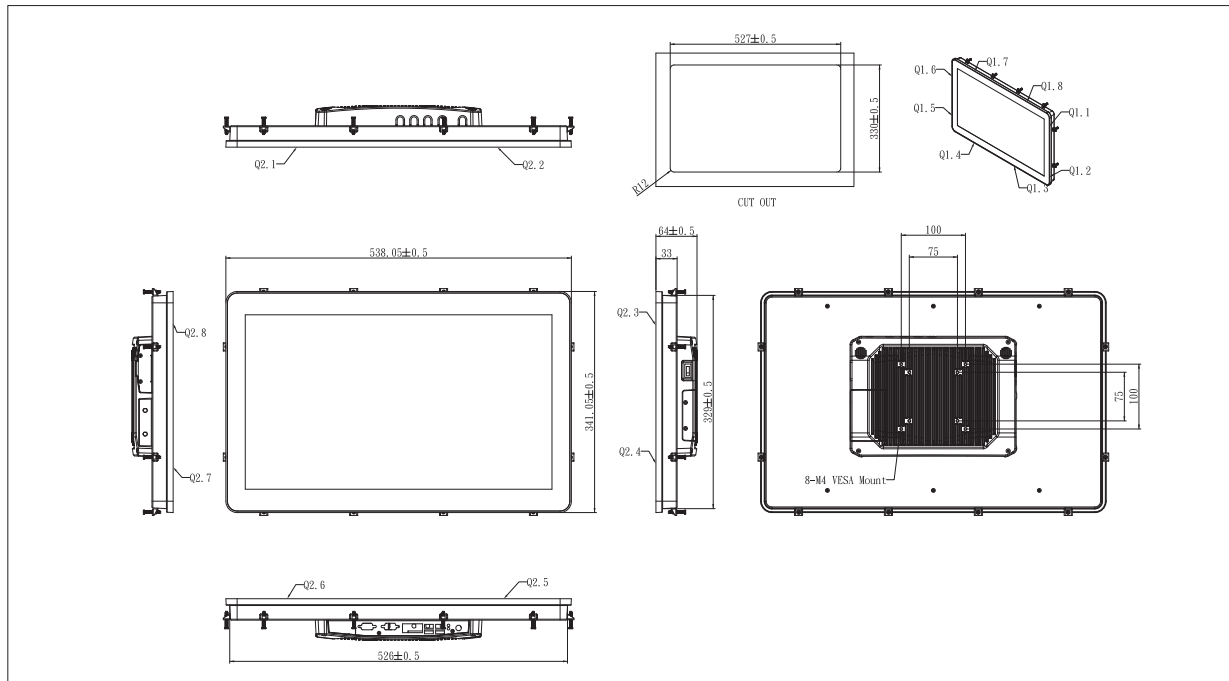
Component

Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W adapter (24V @ 5.0A adapter) AC-DC adapter
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ARC-21W38

21.5" 11th Generation Intel® Core™ i3/i5/i7 Processors
Fanless Rugged Touch Panel PC with IET Expansion

Mechanical Drawing



Ordering Information

P/N	Touch Type	Processor	Memory	Storage	Resolution	Luminance	COM	USB	LAN	Power Input	Working Temp.	OS Support
ARC-21W38-57E-B1R	PCAP	Intel® Core™ i5-1145G7E	1 x 260-pin DDR4 3200MHz SO-DIMM	1 x 2.5" Drive bay (7mm HDD restricted)	1920 x 1080	500	2	4	2	+12V ~ +24V	-10°C ~ 50°C	Win10 / Win11 / Linux

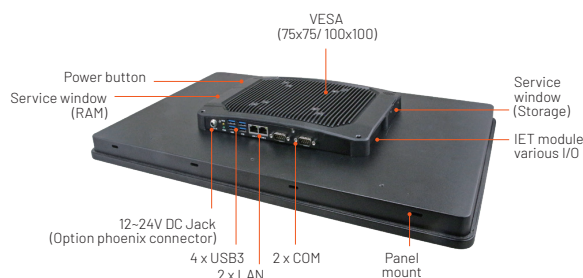
Packing List

Item	P/N	Quantity
AC/DC adapter 24V/5A 120W, Screw Type	ACC-ADP-120N-05R	1
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 M4 x 25mm	E1935052510R	12
Bracket for Panel Mount	E195BKAR120915R	12
Plastics spacer support D7.7*8	E199PS00002R	12

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
OBDDII - CAN bus IET module for ARC-1535/38 (OBDDII/EOBD for small vehicle)	ACC-ARC-OBDDII-01R
OBDDII - CAN bus IET module for ARC-1535/38 (J1939J1708 for large vehicle)	ACC-ARC-OBDDII-02R
OBDDII - CAN bus IET module for ARC-1535/38 (ISO15765-4 for special large vehicle)	ACC-ARC-OBDDII-03R
USA Power Cord	E1702031833R
EU Power Cord	E1702031000R
Japan Power Cord	E1702031834R
UK Power Cord	E1702031830R
Australia Power Cord	E1702031831R

I/O Overview



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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