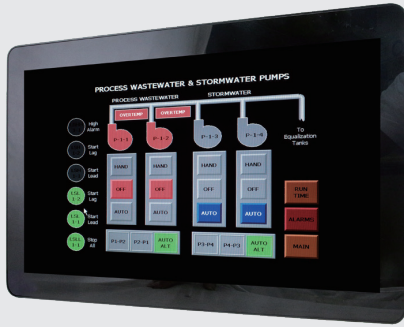


# ARC-21W38

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

<b>Processor</b>	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
<b>System Memory</b>	1 x 260-pin DDR4 3200MHz SO-DIMM up to 32 GB
<b>I/O Chipset</b>	EC ITE IT8528E
<b>Watchdog Timer</b>	H/W reset, 1sec. ~ 65535min. and 1sec. or 1min./step
<b>H/W Status Monitor</b>	Monitoring CPU & system temperature and voltage
<b>TPM</b>	Onboard NuvoTon NPCT754AABYX support TPM 2.0
<b>SBC</b>	ARC-TGL
<b>Other</b>	7 x Knockouts for antenna mounting *5 from rear cover + 2 from IET bracket

### Expansion

<b>Expansion</b>	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

<b>Storage</b>	1 x 2.5" Drive bay (7mm HDD restricted)
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### Display

<b>Graphic Chipset</b>	Intel® Tiger Lake UP3 SoC integrated graphics supports optional dual display
<b>Spec. &amp; Resolution</b>	HDMI: Max. Resolution 4096x2160 @ 24Hz (optional by IET module)

### Audio

<b>Audio Codec</b>	Realtek ALC888S
<b>Speaker Output</b>	2 x 2W

### Ethernet

<b>LAN Chipset</b>	1 x Intel® I219LM Gigabit Ethernet PHY 1 x Intel® I225LM 2.5 Gigabit Ethernet
<b>Ethernet Interface</b>	Intel® I219LM : 10/100/1000 Base-Tx GbE compatible Intel® I225LM : 10/100/1000/2.5G Base-Tx GbE compatible

### Power Requirement

<b>DC Input</b>	+12V ~ +24V
<b>DC Input Connector</b>	Lockable DC Jack (default), Optional for phoenix connector
<b>ACPI</b>	Single power ATX support S0, S3, S4, S5 and ACPI 3.0 compliant

### Software Support

<b>OS</b>	Win10 / Win11 / Linux
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### Certification

Certification Information CE / FCC Class B / VCCI

### Panel

<b>LCD Size; Display Type</b>	21.5", 16:9; Full HD
<b>Resolution</b>	1920 x 1080
<b>Pixel pitch</b>	247.95um (H) x 247.95um (V)
<b>Luminance</b>	500 cd/m <sup>2</sup>
<b>Contrast ratio</b>	1000
<b>Viewing angle</b>	89 (U), 89 (D), 89 (L), 89 (R)
<b>Response time</b>	14 ms
<b>Backlight</b>	LED
<b>Touch Type</b>	Projective capacitive multi-touch up to 10 points
<b>Touch Light Transmission</b>	89%
<b>Touch Controller</b>	USB touch (EETI)

### External I/O

<b>USB</b>	4 x USB 3.0
<b>LAN Port</b>	2 x RJ-45
<b>COM Port</b>	1 x RS-232/422/485, 1 x RS-232

### Internal I/O

<b>SATA</b>	1 x SATA III
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### System Control

<b>LED Indicator</b>	HDD LED, power LED
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### Mechanical & Environmental

<b>Operating Temp.</b>	-10°C ~ 50°C (14°F ~ 122°F)
<b>Storage Temp.</b>	-20°C ~ 60°C (-4°F ~ 140°F)
<b>Operating Humidity</b>	40°C @ 95% Relative humidity, non-condensing
<b>Dimension (W x L x H)</b>	538.05 x 341.05 x 64mm
<b>Weight</b>	7.3 Kg
<b>Vibration Test</b>	With SSD/M.2 SSD : 3Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 30mins/axis
<b>Shock Test</b>	Operating with SSD/M.2 : MIL-STD-810G, method 516.6, procedure I, functional shock=20G
<b>Drop Test</b>	ISTA 2A, IEC-60068-2-32 Test:Ed
<b>IP Rating</b>	Front panel IP65, Back cover IP41
<b>Mounting Kit</b>	Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm Panel mount with mounting kits
<b>Power Mode</b>	AT/ATX (ATX is default)
<b>Construction</b>	Die casting with cover lens (Front), Black die casting (Rear)

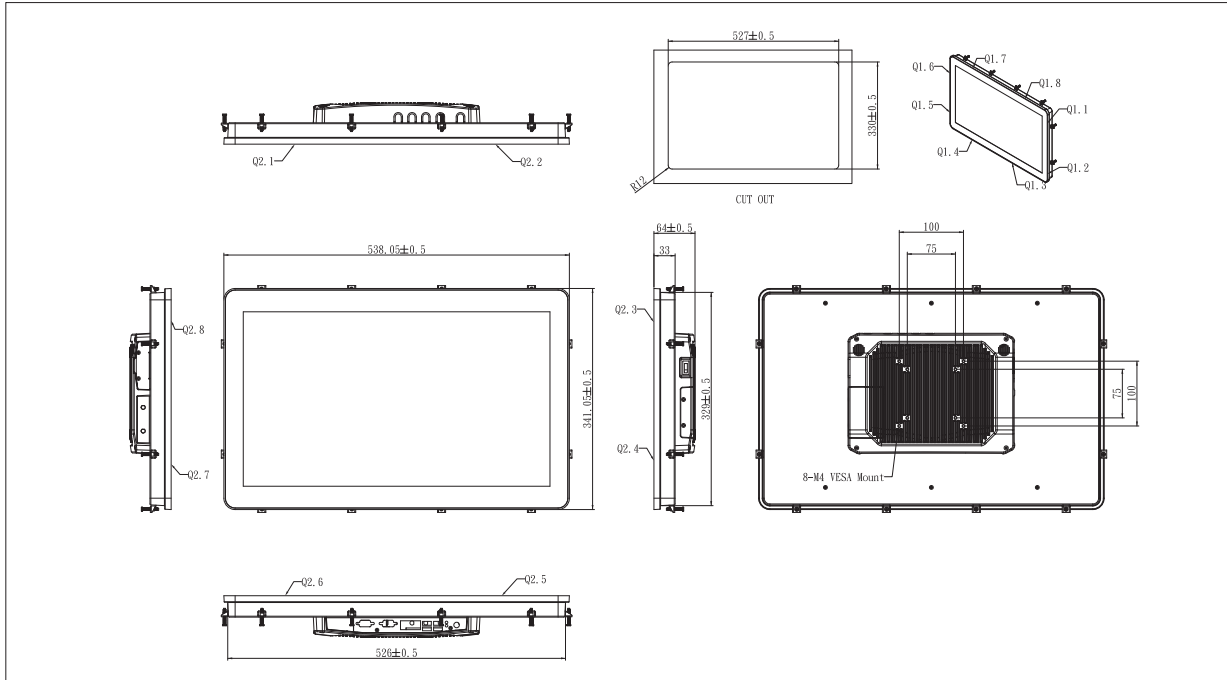
### Component

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

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## 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

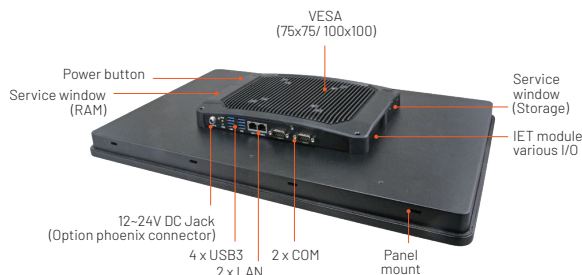
## Packing List

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 + MPCIIE w/SIM IET module for ARC-1535/38	ACC-ARC-MPCIIE-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/EOBD for small vehicle)	ACC-ARC-OBDII-01R
OBDII - CAN bus IET module for ARC-1535/38 (J1939J1708 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	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.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660