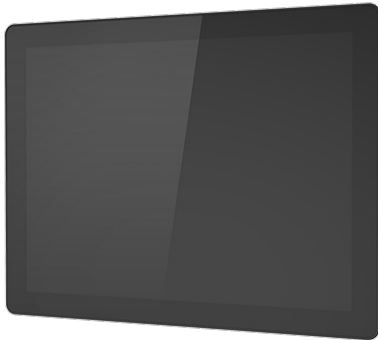




## ARC-1538-B

**15" 11th Gen. Intel® Core™ Processor i7/i5/i3  
Fanless Rugged Touch Panel PC with IET  
Expansion**

- > Onboard 11th Gen. Intel®Core™ i7/i5/i3 BGA Processor
- > 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 (Optional)
- > Fanless Operation from -10°C ~ 50°C (14°F ~ 122°F)

### + Spec

| System Information        |                                                                                                                                                                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                 | 11th Gen Intel® Core™ i7/i5/i3 BGA Processor<br>Intel® Core™ i7- 1185G7E (15W, 12M Cache, up to 2.80 GHz), ST<br>Intel® Core™ i5- 1145G7E (15W, 8M Cache, up to 2.60 GHz), ST<br>Intel® Core™ i3- 1115G4E (15W, 6M Cache, up to 3.00 GHz), ST |
| 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 (by option)                                                                                                                                                                                      |
| SBC                       | ARC-TGL                                                                                                                                                                                                                                       |
| Expansion                 |                                                                                                                                                                                                                                               |
| Expansion                 | 1 x M.2 Key-B 2242/3042/3052 with SIM card slot<br>Support SATA3 / PCIe & USB for LTE(4/5G) / NVMe(BOM option for PCIe x2)<br><br>1 x M.2 Key-E 2230<br>Support PCIe/USB/CNVi Wi-Fi/BT module<br><br>1 x 80-pin IET interface                 |
| Storage                   |                                                                                                                                                                                                                                               |
| Storage                   | 1 x 2.5" Drive Bay (7mm HDD Restricted)                                                                                                                                                                                                       |
| Panel                     |                                                                                                                                                                                                                                               |
| LCD Size                  | 15", 4:3                                                                                                                                                                                                                                      |
| Display Type              | XGA                                                                                                                                                                                                                                           |
| Resolution                | 1024 x 768                                                                                                                                                                                                                                    |
| Pixel pitch               | 0.297mm(H) x 0.297mm(V)                                                                                                                                                                                                                       |
| Luminance                 | 300 cd/m²                                                                                                                                                                                                                                     |
| Contrast ratio            | 2000                                                                                                                                                                                                                                          |
| Viewing angle             | 88 (U), 88 (D), 88 (L), 88 (R)                                                                                                                                                                                                                |
| Response time             | 16 ms                                                                                                                                                                                                                                         |
| Backlight                 | LED                                                                                                                                                                                                                                           |
| Touch Type                | Projective Capacitive Multi-Touch up to 10 points                                                                                                                                                                                             |
| Touch Light Transmission  | 89 %                                                                                                                                                                                                                                          |
| Touch Controller          | USB touch (ILITEK ILI2511, COF)                                                                                                                                                                                                               |
| I/O                       |                                                                                                                                                                                                                                               |
| USB Port                  | 4 x USB 3.0                                                                                                                                                                                                                                   |
| COM Port                  | 1 x RS-232/422/485<br>1 x RS-232                                                                                                                                                                                                              |
| SATA                      | 1 x SATA III                                                                                                                                                                                                                                  |
| Other                     | 7 x Knockouts for Antenna Mounting<br>*5 from rear cover + 2 from IET bracket                                                                                                                                                                 |
| Display                   |                                                                                                                                                                                                                                               |
| Graphic Chipset           | Intel® Tiger Lake UP3 SoC integrated Graphics<br>Supports optional dual display                                                                                                                                                               |
| Spec. & Resolution        | HDMI: Max. resolution 4096x2160 @ 24Hz (Optional by IET module)                                                                                                                                                                               |
| Audio                     |                                                                                                                                                                                                                                               |
| Audio Codec               | Realtek ALC888S(co-layout 897)                                                                                                                                                                                                                |
| Speaker Output            | 2 x 2W                                                                                                                                                                                                                                        |
| Certifications            |                                                                                                                                                                                                                                               |
| Certification Information | CE<br>FCC Class B                                                                                                                                                                                                                             |
| Ethernet                  |                                                                                                                                                                                                                                               |



|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LAN Chipset</b>                    | 1 x Intel® I225LM 2.5 Gigabit Ethernet<br>1 x Intel® I219LM Gigabit Ethernet PHY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Ethernet Interface</b>             | 10/100/1000 Base-Tx GbE compatible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>LAN Port</b>                       | 2 x RJ-45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Power Requirement</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>DC Input</b>                       | +12V ~ +24V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>DC Input Connector</b>             | Lockable DC Jack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Adapter</b>                        | Input: 100 ~ 240Vac/ 50 ~ 60Hz<br>Output: 72W Adapter (19V @ 3.78A Adapter) AC-DC Adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Mechanical &amp; Environmental</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Operating Temperature</b>          | -10°C ~ 50°C (14°F ~ 122°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage Temperature</b>            | -20°C ~ 60°C (-4°F ~ 140°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Operating Humidity</b>             | 40°C @ 95% Relative Humidity, Non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Weight</b>                         | 3.7 Kgs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <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>IP Rating</b>                      | Front IP65<br>Rear IP41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Mounting Kit</b>                   | Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm<br>Panel Mount with mounting kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Power Mode</b>                     | AT/ATX (ATX is default setting)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>System Fan</b>                     | Fanless                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Construction - Front</b>           | Die Casting with Cover lens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Construction - Rear</b>            | Black Die Casting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Dimension</b>                      | 350.51 x 274.51 x 56.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Software Support</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>OS Information</b>                 | Win10 / Linux                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Ordering Information</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Ordering Information</b>           | <p>ARC-1538-57E-B1-1R<br/>15" 1024x768 Industrial Touch Panel PC, ErP Design, PCAP Multi Touch(ALC888S)<br/>11th Gen Intel Core i5-1145G7E 1.50 GHz CPU/2GLAN/2COM/4USB/SPK/12~24V input/19V Adapter</p> <p>Optional IET Module list:</p> <p>ACC-ARC-USB-01R<br/>4 x USB 3.0 IET module for ARC-1535/38</p> <p>ACC-ARC-AUDIO-01R<br/>HDMI + 5.1 CH audio IET module for ARC-1535/38</p> <p>ACC-ARC-MPCIE-02R<br/>HDMI + MPCIE w/SIM IET module for ARC-1535/38</p> <p>ACC-ARC-COM-01R<br/>2 x Isolated RS-232 IET module for ARC-1535/38</p> <p>ACC-ARC-COM-02R<br/>3 x RS-232 IET module for ARC-1535/38</p> <p>ACC-ARC-COM-03R<br/>2 x RS-232 + USB IET module for ARC-1535/38</p> <p>ACC-ARC-COM-04R<br/>2 x RS-232 + LAN IET module for ARC-1535/38</p> <p>ACC-ARC-GPIO-01R<br/>12-bit GPIO + 2-pin CAN bus IET module for ARC-1535/38</p> <p>ACC-ARC-OBDI-01R<br/>OBDII - CAN bus IET module for ARC-1535/38 (OBDII/EOBD for small vehicle)</p> <p>ACC-ARC-OBDI-02R<br/>OBDII - CAN bus IET module for ARC-1535/38 (J1939J1708 for large vehicle)</p> <p>ACC-ARC-OBDI-03R<br/>OBDII - CAN bus IET module for ARC-1535/38 (ISO15765-4 for special large vehicle)</p> |