

# 21.5" Fanless Full IP65/NEMA4 Panel PC (Intel® 7<sup>th</sup> Generation Core™ i5 Platform)

MODEL #: W22IK3S-65A3

## Mechanical Design



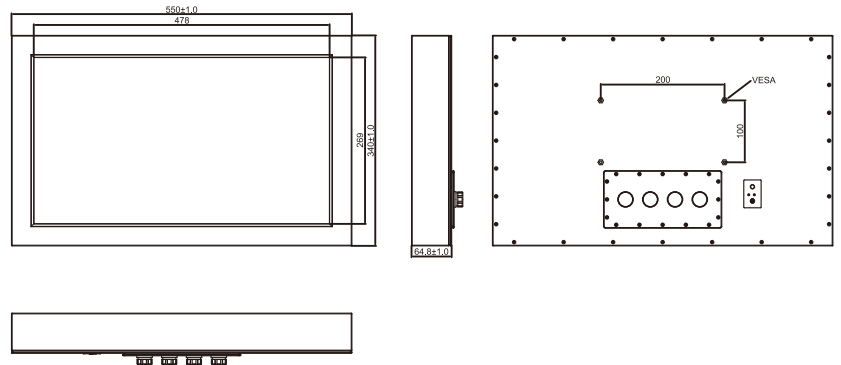
### Features:

- 7<sup>th</sup> Generation (kaby Lake) Intel® Core™ i5-7200U 2.5GHz (turbo to 3.1GHz)
- Fanless Design
- Full IP65 dust/water resistant
- Stainless Housing with Anti-Corrosion Treatment
- Optical Bonding with Anti-moisture Treatment (Optional)
- 5 Wire Resistive Touch/ Anti-Reflection Protection Glass (Optional)

## IP65 connector / cable



2 x USB2.0 LAN COM2 Power



★ Note: this is a simplified drawing and some components are not marked in detail. Please contact our sales representative if you need further product information.

## System Specifications

### TFT Characteristics

- Resolution : 1920 x 1080
- Brightness : 250 cd/m<sup>2</sup> (typ.)
- Contrast Ratio : 1000 : 1 (typ.)
- Viewing Angles : -89~89(H); -89~89(V)
- Max Colors : 16.7M
- Touchscreen : 5 Wire Resistive Touch (Optional)

### SBC Specifications :

- Processor : Intel® Core i5-7200U 2.5GHz (turbo to 3.1GHz)
- BIOS : Insyde BIOS
- System Chipset : Intel® SoC Integrated
- System Memory : 4GB DDR4-2133 SO-DIMM (Max 16GB)
- Graphic Chipset : Intel® HD Graphics 620
- LAN : Intel® Gigabit-LAN Controller I211AT + PHY I219LM
- Storage : 64GB M.2 B Key SATA III SSD (Options up to 256GB)
- USB : 2 x USB 2.0
- Serial : 1 x RS232
- Power Input : DC-IN
- Audio : Realtek ALC283 HD Audio Codec

\* A customized housing is needed if you would like to have more I/O connectors

### Power Specifications :

- Power Input : 12V DC IN (Lockable Power Jack)
- Power Consumption : 66W (typ.)(Max.backlight & high CPU load)

### Accessories :

- External Power Supply 80W w/power cord

### Environment Considerations :

- Operating Temperature : 0 deg.C to 45 deg.C
- Operating Humidity : 30% to 90% (non condensing)

### Input/ Output Connectors :

- Ethernet LAN : 1 x RJ45-10/100/1000 Mbps
- COM : 1 x RS232
- USB : 2 x USB 2.0
- Power : 1 x 12VDC

### Order Options :

| SBC  | PANEL PC                            |
|--|-------------------------------------|
| RAM : SODIMM DDR4 (up to 16GB)             | Mechanical : Stainless Chassis      |
| Storage : M.2 B Key SATA III (up to 256GB) | Touch : 5 Wires Resistive(Optional) |
|  | OS : Windows 10 IoT Enterprise      |

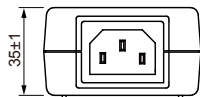
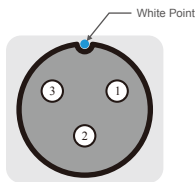
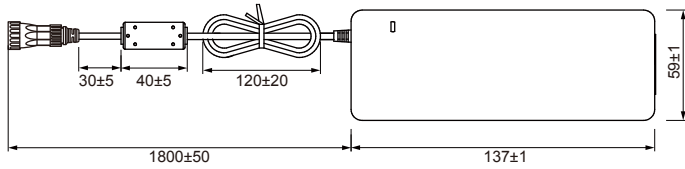


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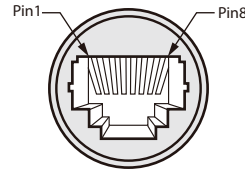
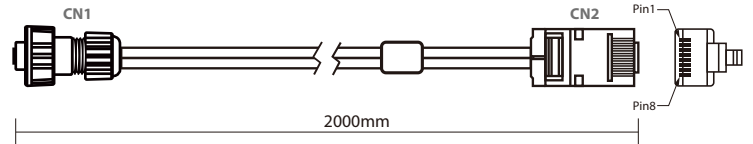
## Pin Assignment of cables

### Power Cable



| Pin No. | Symbols | Color |
|---------|---------|-------|
| CN1-3   | GND     | Black |
| CN1-2   | shield  |       |
| CN1-1   | VCC     | White |

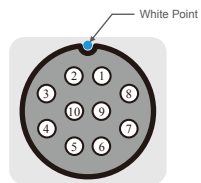
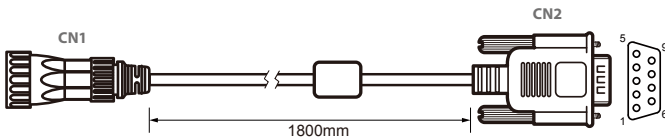
### LAN Cable



| Plug | Wire Color     | Conn. |
|------|----------------|-------|
| 1    | Orange / White | 1     |
| 2    | Orange         | 2     |
| 3    | Green / White  | 3     |
| 4    | Blue           | 4     |
| 5    | Blue / White   | 5     |
| 6    | Green          | 6     |
| 7    | Brown / White  | 7     |
| 8    | Brown          | 8     |

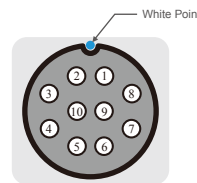
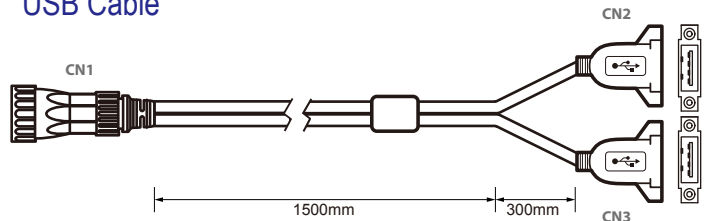
Twist (for pairs 1-2, 3-6, 4-5, 7-8)

### Serial Cable



| Pin No. | Symbols  | Color  |   | Pin No. | Symbols  | Color  |
|---------|----------|--------|---|---------|----------|--------|
| CN1-1   | DCD-CON2 | Green  | ↔ | CN2-1   | DCD-CON2 | Green  |
| CN1-2   | DSR-CON2 | Brown  | ↔ | CN2-2   | DSR-CON2 | Brown  |
| CN1-3   | RXD-CON2 | Red    | ↔ | CN2-6   | RXD-CON2 | Red    |
| CN1-4   | RTS-CON2 | Orange | ↔ | CN2-7   | RTS-CON2 | Orange |
| CN1-5   | TXD-CON2 | Blue   | ↔ | CN2-3   | TXD-CON2 | Blue   |
| CN1-6   | CTS-CON2 | White  | ↔ | CN2-8   | CTS-CON2 | White  |
| CN1-7   | DTR-CON2 | Purple | ↔ | CN2-4   | DTR-CON2 | Purple |
| CN1-8   | RI-CON2  | Yellow | ↔ | CN2-9   | RI-CON2  | Yellow |
| CN1-9   | GND-CON2 | Black  | ↔ | CN2-5   | GND-CON2 | Black  |
| CN1-10  | NC       |        | ↔ | CN2-10  | NC       |        |

### USB Cable



| Pin No. | Symbols | Color |   | Pin No.                      | Symbols | Color |
|---------|---------|-------|---|------------------------------|---------|-------|
| CN1-1   | VCC     | RED   | ↔ | CN2-1                        | VCC     | RED   |
| CN1-2   | VCC     | RED   | ↔ | CN3-1                        | VCC     | RED   |
| CN1-3   | D-      | WHITE | ↔ | CN2-2                        | D-      | WHITE |
| CN1-4   | D-      | WHITE | ↔ | CN3-2                        | D-      | WHITE |
| CN1-5   | D+      | GREEN | ↔ | CN2-3                        | D+      | GREEN |
| CN1-6   | D+      | GREEN | ↔ | CN3-3                        | D+      | GREEN |
| CN1-7   | GND     | BLACK | ↔ | CN2-4                        | GND     | BLACK |
| CN1-8   | GND     | BLACK | ↔ | CN3-4                        | GND     | BLACK |
| CN1-9   | Braid   |       | ↔ | Braid connect to the housing |         |       |

twisted pair (for pairs 1-2, 3-4, 5-6)