

# SHIELD-185

## IEI Stainless Steel Industrial Panel PC

Powered by Intel Amston Lake Processor



[www.ieiworld.com](http://www.ieiworld.com)



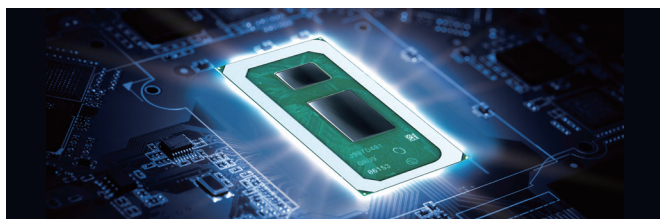
# SHIELD-185

Stainless Steel Panel PC equips Intel Amston Lake Processor , Preinstalled with 8GB SO-DIMM DDR5, PCAP touch, 10~28V DC, 304 Stainless Steel Chassis, Full body IP69K Rated With Water-Proof Connectors.



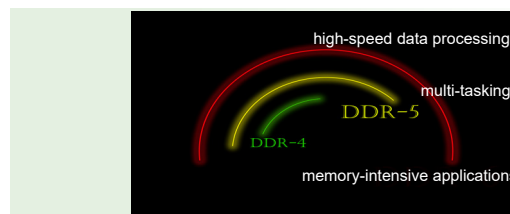
## Excellent processor performance

Amston Lake is a new generation mobile processor launched by Intel. It uses Intel's ultra-low power technology and the latest Gracemont core, with higher performance and lower energy consumption.



## Next Gen high-speed memory

Compared to DDR4, DDR5 has the advantage of its wider bandwidth and lower power consumption, supporting high-speed data processing, multi-tasking, and memory-intensive applications.



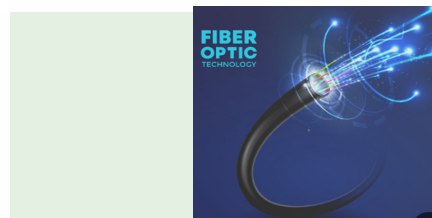
## Comprehensive stainless steel solutions

The Shield Series features a corrosion-resistant 304 stainless steel housing with fully waterproof ports. And it has longer life cycle and lower maintenance costs



## High-Speed Transmission Optical Fiber Module

Optical fiber can support ultra-large bandwidth to meet high-speed transmission requirements. Effectively reduce signal attenuation enabling high-quality transmission over long distances.



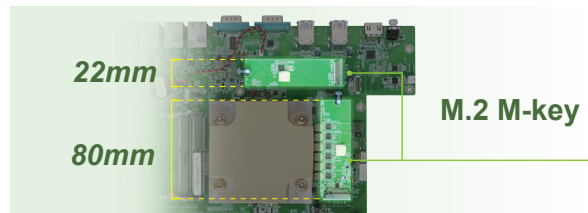
## Seamless Connections

SHIED series is all equipped with M12/M20 waterproof connectors with easy installation. Providing seamless and stable signal transmissions.

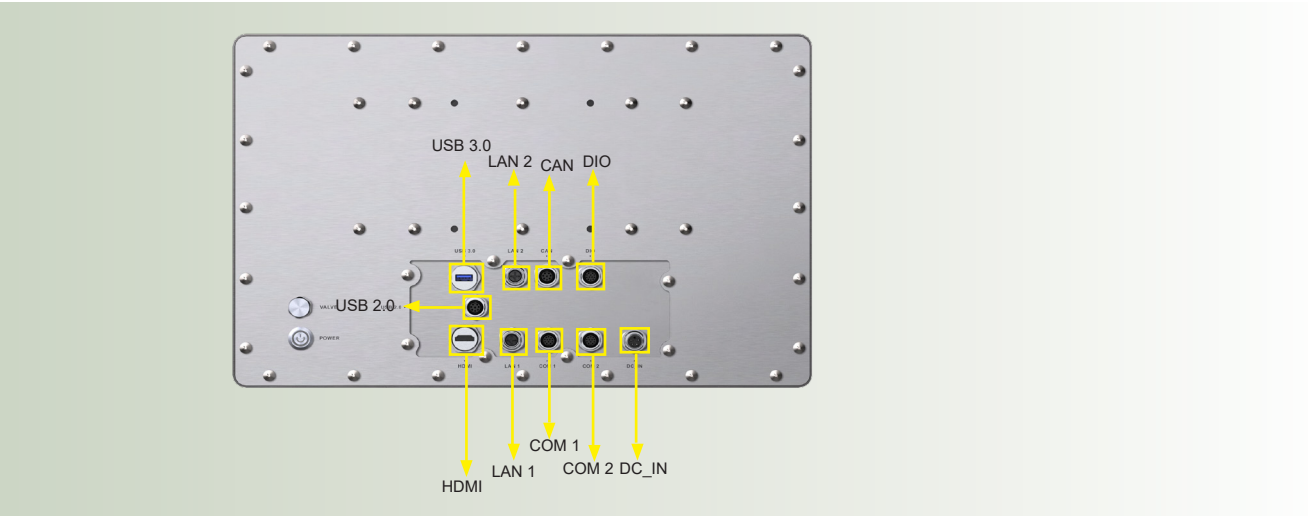


## Multiple M.2 Expansions

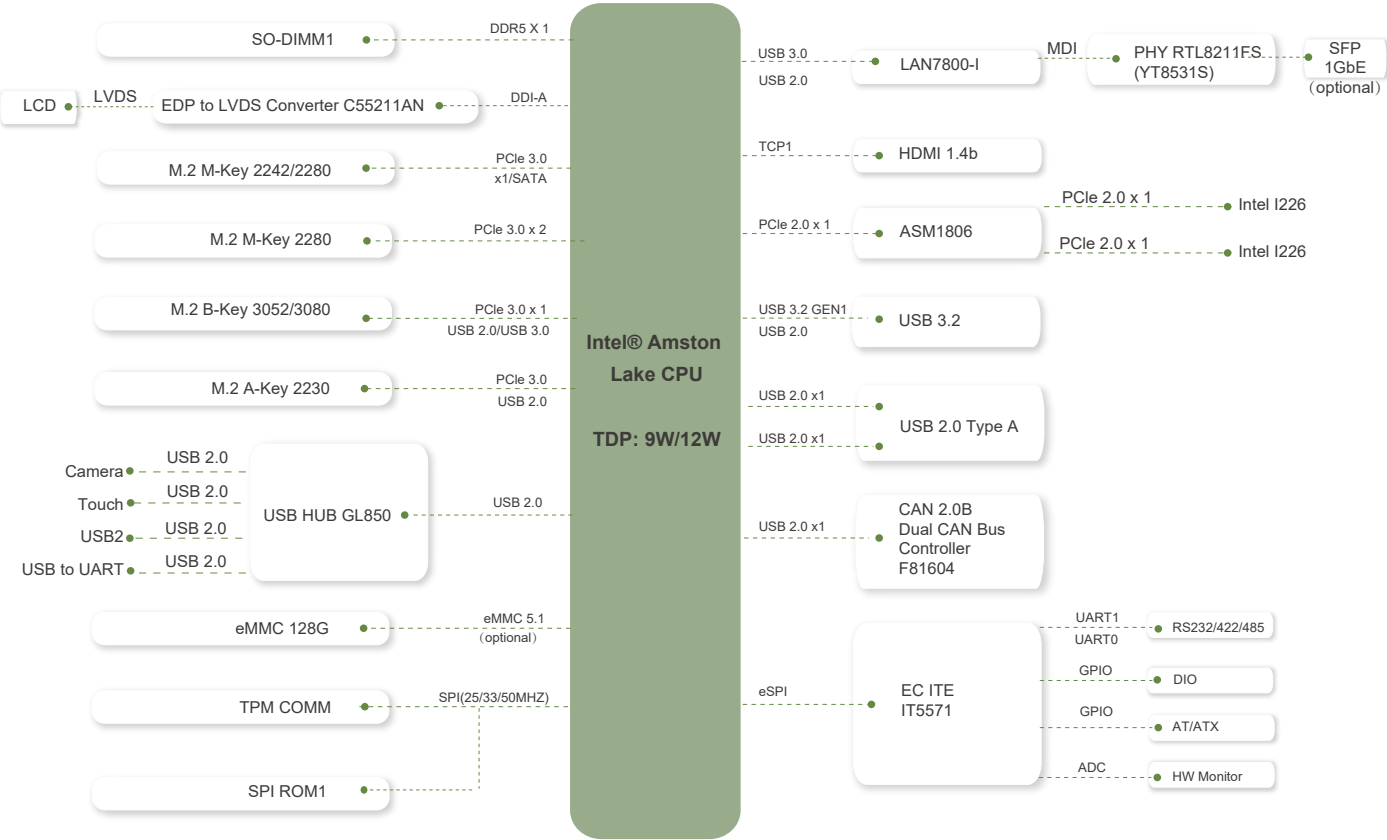
SHIELD series features various M.2 expansion slots, providing users with flexible expansion space for different application scenarios.



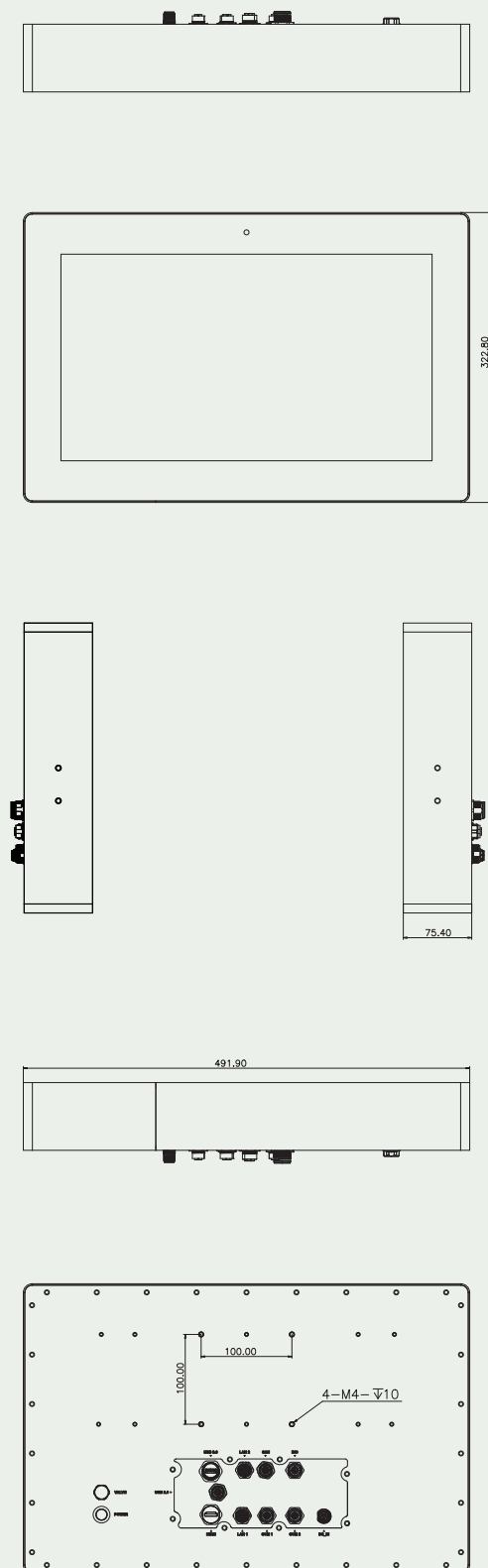
Fully Integrated I/O



Block Diagram



## Dimensions (Unit: mm)



## Specifications

| Model                               | SHIELD-185                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LCD Display                         | 18.5"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Resolution                          | 1920 (W) x 1080 (H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Brightness                          | 500 cd/m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Contrast Ratio                      | 1000:1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| LCD Color                           | 16.7M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pixel Pitch (mm)                    | 0.213 (H) x 0.213 (V)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Viewing Angle (H-V)                 | 178°/178°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Backlight MTBF                      | 50000 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Touchscreen                         | Multi-point projected capacitive type<br>(anti-UV / anti-glare coating, support gloves)<br>Surface hardness: ≥7H                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Touch Controller                    | Projected capacitive type: ILI2521                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CPU (SoC)                           | Intel Atom® x7433RE Processor 6M Cache, up to 3.40 GHz / TDP 9w<br>Intel Atom® x7835RE Processor 6M Cache, up to 3.40 GHz / TDP 12w                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Memory                              | 1 x SO-DIMM DDR5-4800 up to 16GB (Pre-installed 8GB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Ethernet                            | 2 x 2.5GbE LAN via Intel I226-IT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Storage                             | 1 x M-Key 2280 (PCIe Gen3 x2) for M.2 SSD<br>1 x 128GB eMMC (optional)*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Expansion slot                      | 1 x M.2 M-Key 2242/2280 (PCIe Gen3 x1 + SATA)<br>1 x M.2 B-Key 3052/3080 (PCIe Gen3 x1 + USB 3.0 x1)<br>1 x NANO-SIM<br>1 x M.2 A-key 2230 (PCIe Gen3 x1 + USB 2.0 x1)                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Camera                              | 1 x Camera (Wide-viewing angle)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| External I/O Interface              | M12 Waterproof Connector for 2 x RJ-45 2.5GbE LAN<br>M12 Waterproof Connector for 1 x RS-232(with 2.0 kV isolation)<br>M12 Waterproof Connector for 1 x RS-232/422/485(with 2.0 kV isolation)<br>M12 Waterproof Connector for 1 x CANBUS(with 2.0 kV isolation)<br>M12 Waterproof Connector for 1 x 8bit DIO (Isolator) (with 1.6 kV isolation) with SMBus<br>M12 Waterproof Connector for 1 x USB2.0<br>M20 Waterproof Connector for 1 x USB3.0<br>M20 Waterproof Connector for 1 x HDMI 1.4b<br>Waterproof Connector for Power switch<br>M12 Waterproof Connector for DC Input Power |
| Construction Material               | 304 Stainless Steel Chassis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mounting                            | VESA Mount 100 x 100 / Pole Mount / YOKE Mount                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| IP Rating                           | Fully IP69K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Power Input                         | DC 10~28V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Operating Temperature(with airflow) | -30°C~55°C@50%RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Storage Temperature                 | -40°C~70°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Humidity                            | 10 to 90%RH @ 40°C, non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Safety and EMC                      | CE/FCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| OS                                  | Windows 10/11 IoT Enterprise 64-bit Linux                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

\*Based on project discussion, it might have MOQ criteria. Please contact with Sales Account.

## Ordering Information

|                    |                                                                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SHIELD-185-R3C-R10 | 18.5" 500cd/m <sup>2</sup> 1920x1080 Panel PC with Intel® Atom x7433RE Processor, TDP 9W, Preinstalled with 8GB DDR5, PCAP touch, 10~28V DC, 304 Stainless Steel Chassis, Full body IP69K Rated with water-proof Connectors , R10  |
| SHIELD-185-R4C-R10 | 18.5" 500cd/m <sup>2</sup> 1920x1080 Panel PC with Intel® Atom x7835RE Processor, TDP 12W, Preinstalled with 8GB DDR5, PCAP touch, 10~28V DC, 304 Stainless Steel Chassis, Full body IP69K Rated with water-proof Connectors , R10 |

## Packing List

|                 |                  |               |
|-----------------|------------------|---------------|
| 1 x Power Cable | 1 x USB2.0 Cable | 1 x LAN Cable |
|-----------------|------------------|---------------|

## Options

| Item          | Part No.            | Length   | Description                                                                                                           |
|---------------|---------------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| LAN cable     | 32013-007300-100-RS | 1000mm   | M12 X code 8pin Male to RJ45 Female                                                                                   |
| USB 2.0 cable | 32001-033000-100-RS | 1000mm   | M12 A code 8pin Male to USB Type-A female X2                                                                          |
| DIO cable     | 32031-000700-100-RS | 1000mm   | M12 A code 12pin Male to HDB15 Male                                                                                   |
| COM cable     | 32005-006300-100-RS | 1000mm   | M12 A code 9pin Male to DB9 Male                                                                                      |
| CAN cable     | 32005-006400-100-RS | 1000mm   | M12 A code 8pin Male to DB9 Male                                                                                      |
| USB3.0 cable  | 32001-033200-100-RS | 1000mm   | waterproof Type-A Male to USB3.0 Type-A female                                                                        |
| HDMI CABLE    | 32012-003800-100-RS | 1000mm   | waterproof Type-A Male to HDMI Type-A female)                                                                         |
| Adapter Power | 63040-010120-300-RS | 1500mm   | FSP120-AHAN3;Vin:90~264VAC;120W;Dim:75.6*151.3*25.4mm;Plug=8.5mm;Erp(NO LOAD 0.15W);Vout:12VDC;Din 4Pin;lock;CCL;RoHS |
| Power Cord    | 32702-003600-100-RS | 1000mm   | EUROPEAN CODE(VDE);2:1000mm;;(A)PLUG:LT-322(16A 250V);(B)CONNECTOR:LT-501(10A 250V)                                   |
| Item          | Part No.            | Quantity | Description                                                                                                           |
| YOKE MOUNT    | YM-185-R10          | 1        | 18.5" Yoke Mount Bracket                                                                                              |
| Fiber Module  | iuOF-1G1PW-WF1-R10  | 1        | IEI 1G USB optical fiber Module                                                                                       |