

## TPC150-EKT

### 15" All-in-one Panel PC



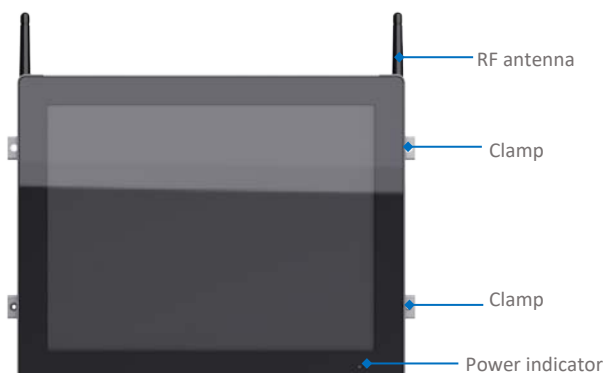
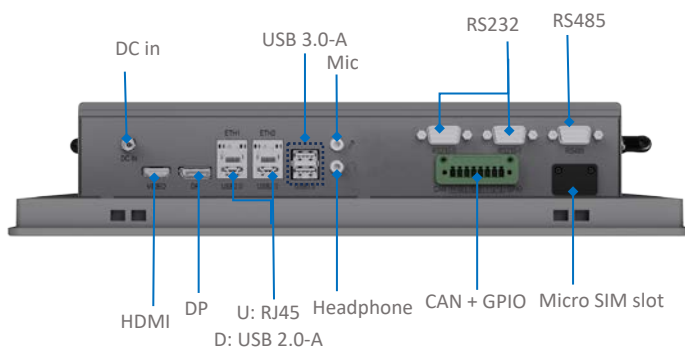
#### Product Brief

Vantron TPC150-EKT is a 15" panel mount all-in-one panel PC. It is powered by Intel® Elkhart Lake quad-core high-performance processor that offers rich interfaces such as RS232, RS485, GPIO, USB, and CAN, enabling seamless connection with diverse peripherals.

TPC150-EKT features a 10-point PCAP touchscreen monitor with an XGA native resolution and a 4:3 aspect ratio. It offers multiple connectivity options, including dual Ethernet, Wi-Fi, Bluetooth, and optional 4G LTE. The front panel is IP65 rated, making it ideal for industrial control applications such as retail, smart city, and healthcare when panel mounted with the provided clamps. In addition, the 75mm x 75mm VESA pattern provides it with flexibility for installation in various settings.

Vantron TPC series all-in-one panel PCs offer an overall solution that integrates the touchscreen monitor, display, processor, and software operating system, making them a first choice in IoT applications.

#### Exterior and Features



#### TPC150-EKT



Intel® Elkhart Lake high-performance processor



15" XGA TFT LCD, 300 nits



10-point PCAP touch screen, gloves compatible



Windows 10 IoT, Ubuntu 20.04



Ethernet, Wi-Fi, Bluetooth, optional 4G LTE



Rich I/O: RS232, RS485, GPIO, USB, CAN



Front panel IP65 rated



Fanless design

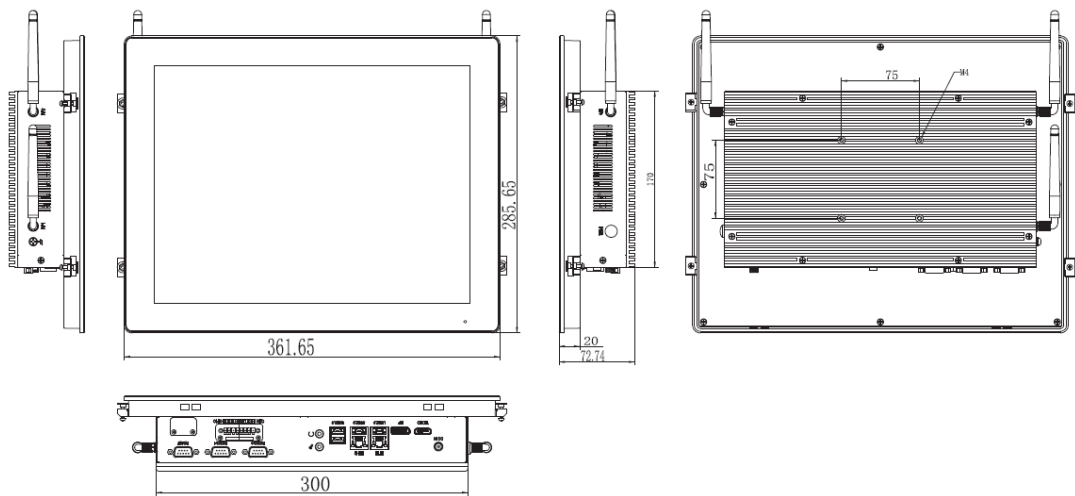


Panel mount, VESA mount

## TPC150-EKT 15" All-in-one Panel PC Datasheet

| TPC150-EKT            |                     |  |                                      |
|-----------------------|---------------------|--|--------------------------------------|
| System                | CPU                 | Intel® Atom®x6425E Processor, 4C4T, 2.0GHz (base), 3.0GHz (turbo), 12W TDP<br>Intel® Celeron®J6412 Processor, 4C4T, 2.0GHz (base), 2.6GHz (turbo), 10W TDP |                                      |
|                       | Memory              | 1 x DDR4 SO-DIMM, 3200MT/s, up to 16 GB (Default: 8GB)   |                                      |
|                       | Storage             | 128GB eMMC 5.1<br>Optional: Up to 1TB SATA SSD (M.2 B-Key 2242, mutually exclusive with 4G LTE)  |                                      |
| Communication         | Ethernet            | 2 x RJ45, 10/100/1000Mbps  |                                      |
|                       | Wi-Fi & BT          | Wi-Fi 802.11 a/b/g/n/ac + BT 5.0   |                                      |
|                       | 4G LTE              | Optional, CAT 4 (M.2 B-Key 2230, mutually exclusive with SATA SSD)   |                                      |
| Media                 | Display             | 15-inch TFT LCD  | Contrast ratio: 800:1                |
|                       |                     | Resolution: 1024 x 768 @60Hz   | Aspect ratio: 4:3                    |
|                       |                     | Brightness: 300 nits (typical)   | Viewing angle: 80/80/85/85 (U/D/L/R) |
|                       | Extended display    | 1 x HDMI 2.0b, up to 4K @60Hz  | 1 x DP 1.4, up to 4K @60Hz           |
|                       | TP                  | 10-point PCAP touch screen   | Surface hardness: 6H                 |
|                       |                     | Surface treatment: Anti-fingerprint (AF)   | Cover lens: IK07 rated               |
|                       |                     | Optional: Anti-glare (AG)  | Light transmittance ratio: > 85%     |
|                       |                     | Touch input: Finger, stylus, gloves (conductive or ≤1mm thick non-conductive)  |                                      |
| I/O                   | Audio               | 1 x 3.5mm Microphone jack  | 1 x 3.5mm 3-pole headphone jack      |
|                       | USB                 | 2 x USB 2.0 Type-A   | 2 x USB 3.0 Type-A                   |
|                       | Serial port         | 2 x RS232, DB9   | 1 x RS232/485/422, DB9               |
|                       | CAN                 | Atom® x6425E: 1 x CAN<br>Celeron®J6412: Optional 1 x CAN   |                                      |
|                       | GPIO                | 4 x GPIO (3.3V)  |                                      |
|                       | Antenna             | RF0: Wi-Fi & Bluetooth antenna   | RF1, RF2: 4G LTE antenna             |
|                       | SIM slot            | 1 x Micro SIM slot   |                                      |
|                       |                     |  |                                      |
| Miscellaneous         | RTC                 | Supported  |                                      |
|                       | WDT                 | Supported  |                                      |
|                       | Security            | Discrete TPM2.0  |                                      |
| System control        | Button              | 1 x Power button   |                                      |
|                       | LED indicator       | 1 x Power indicator (Green: Normal operation; Red: Standby)  |                                      |
| Software              | OS                  | Windows 10 IoT   | Ubuntu 20.04                         |
|                       | Display orientation | Landscape mode by default (Portrait mode supported)  |                                      |
| Power                 | Input               | 12V~36V DC   | 1 x Power jack                       |
|                       | Consumption         | Typical: 21W   | Max.: 31W                            |
| Mechanical            | Dimensions          | 361.65mm x 285.65mm x 72.74mm  |                                      |
|                       | Installation        | VESA mount (75mm x 75mm, M4 x 6mm)   | Panel mount                          |
|                       | Weight              | 4.2kg  |                                      |
|                       | IP rating           | Front panel IP65   |                                      |
|                       | Heat dissipation    | Fanless  |                                      |
| Environment condition | Temperature         | Operating: -20°C ~ +60°C   | Storage: -30°C ~ +80°C               |
|                       | Humidity            | 10%-85% RH (Non-condensing)  |                                      |
|                       | Certification       | FCC, CE  | ESD: ±4KV (Contact); ±8KV (Air)      |
| Reliability           | MTBF                | 50,000 hours   |                                      |
|                       | Warranty            | 2 years  |                                      |

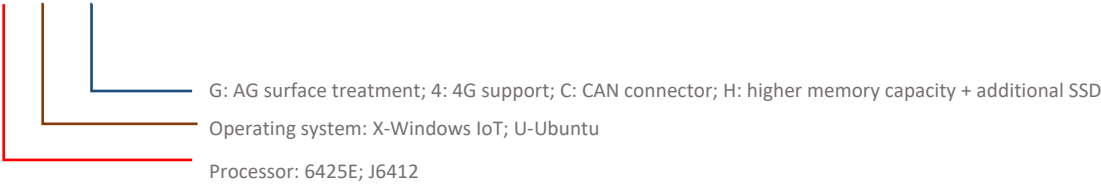
Product Outlines



Ordering Information

Nomenclature

TPC150-EKT-**P-OS**-Add-on features



| Example Ordering No. | Memory | Storage | Add-on                  | Operating System | Processor                       |
|----------------------|--------|---------|-------------------------|------------------|---------------------------------|
| TPC150-EKT-6425E-X   | 8GB    | 128GB   | /                       | Windows 10 IoT   | Intel® Atom® x6425E processor   |
| TPC150-EKT-6425E-X4  | 8GB    | 128GB   | 4G LTE                  | Windows 10 IoT   |                                 |
| TPC150-EKT-6425E-UGH | 16GB   | 128GB   | 512GB SSD, AG treatment | Ubuntu 20.04     |                                 |
| TPC150-EKT-J6412-X   | 8GB    | 128GB   | /                       | Windows 10 IoT   | Intel® Celeron® J6412 processor |
| TPC150-EKT-J6412-X4  | 8GB    | 128GB   | 4G LTE                  | Windows 10 IoT   |                                 |
| TPC150-EKT-J6412-UC  | 8GB    | 128GB   | CAN connector           | Ubuntu 20.04     |                                 |
| TPC150-EKT-J6412-UGH | 16GB   | 128GB   | 512GB SSD, AG treatment | Ubuntu 20.04     |                                 |

| Packing list                              |   |   |  |   |
|---|---|---|--|---|
| TPC150-EKT all-in-one panel PC            | 1 | GPIO mating connector                           |  | 1 |
| Wi-Fi & BT antenna                        | 1 | Mounting clamp                                  |  | 4 |
| CAN mating connector for x6425E processor | 1 | /   |  | / |
| Optional accessories                      |   |   |  |   |
| 19V 3.42A DC power adapter                | 1 | AC power cable (US)                             |  | 1 |
| 4G LTE antenna for 4G version             | 2 | CAN mating connector for J6412 with CAN version |  | 1 |

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