



With the rapid development of intelligent manufacturing and Industry 4.0, the demand for high-stability industrial computing solutions for industrial HMI applications is becoming more and more abundant. However, the continuous expansion of application scenarios and changes in the economic situation also pose higher challenges to the cost-effectiveness of industrial computing hardware products. In order to better contribute to the development of industrial display systems applications, TAICENN constantly innovates its products and technologies. Recently, TAICENN has launched a new modular concept designed & manufactured fan-less touch Panel PCs TPC-DCS/DRS E1 series, which aims to continuously empower the manufacturing process and efficiency.

The TPC-DCS/DRS E1 launched by TAICENN is a new modular fan-less industrial Panel PCs series. It is modular designed and manufactured by the standard Pcap. And Resistive touch display modules and computer modules. The product is equipped with Intel's new Elkhart Lake J6412 quad-core 2.0G high-performance CPU platform. The TPC-DCS/DRS E1 support full inventory from 10.4"to 21.5", totally 8 dimensions; Support both Pcap. Touchscreen and Resistive touchscreen under same cut-out dimensions. The TPC-DCS/DRS E1 Panel PC products support TPM2.0 (PTT2.0) and Windows 11 Operating systems. It is suitable for various of industrial projects, including Machine-to-Machine (M2M), smart building automation, industrial automation, Industrial Internet of Things (IIoT), smart manufacturing, industry 4.0, commercial automation

Outstanding performance - Intel's latest 10nm process

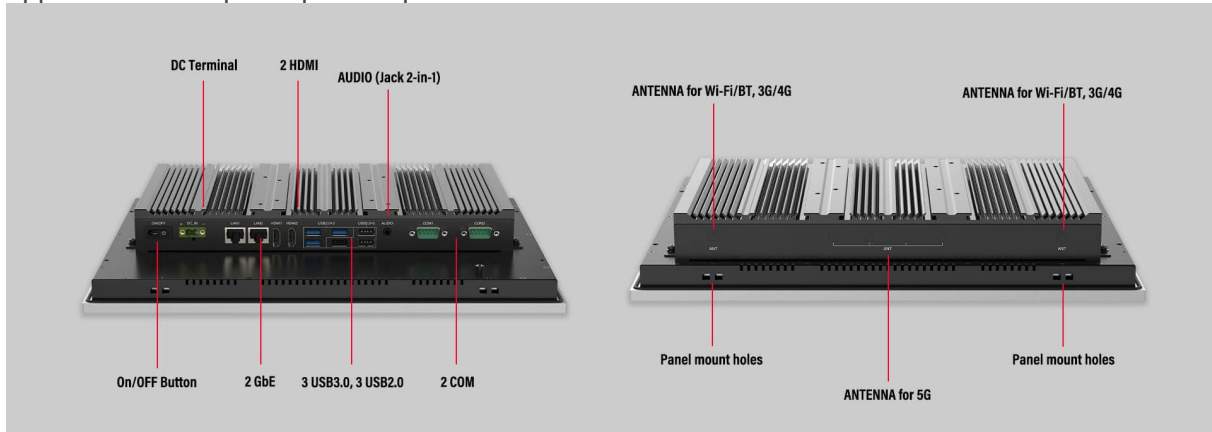
TPC-DCS/DRS E1 industrial Panel PCs adopts Intel's latest 10nm process chip. Compared with the previous generation 14nm process, 10nm technology can not only reduce the chip size by 30%, but also improve the performance by 27% and reduce the power by 40%. consumption (Source from Intel).

	Intel Celeron J3455E @ 1.50GHz	Intel Core i3- 6100U @ 2.30GHz	Intel Celeron J6412 @ 2.00GHz	Intel Celeron 4205U @ 1.80GHz	Intel Core i5- 7200U @ 2.50GHz
Price	Search Online	\$529.99 ¹	\$54 ¹	\$107 ¹	\$499 ¹
Socket Type	FCBGA1296	FCBGA1356	FCBGA1493	FCBGA1528	FCBGA1356
CPU Class	Desktop	Laptop	Mobile/Embedded	Laptop	Laptop
Clockspeed	1.5 GHz	2.3 GHz	2.0 GHz	1.8 GHz	2.5 GHz
Turbo Speed	Up to 2.3 GHz	Not Supported	Up to 2.6 GHz	Not Supported	Up to 3.1 GHz
# of Physical Cores	4 (Threads: 4)	2 (Threads: 4)	4 (Threads: 4)	2 (Threads: 2)	2 (Threads: 4)
Max TDP	10W	15W	10W	15W	15W
Yearly Running Cost	\$1.83	\$2.74	\$1.83	\$2.74	\$2.74
First Seen on Chart	Q3 2020	Q4 2015	Q3 2021	Q2 2019	Q4 2016
# of Samples	8	1780	10	38	6283
Single Thread Rating	837	1346	1372	1037	1766
CPU Mark	2139	2639	3922	1324	3392

The performance of Elkhart Lake J6412 is extremely strong. The CPU mark show it exceeds the 7th Gen. Core i5-7200U series platform and is close to the 6th Gen. i3 desktop platform. From the Single Thread Rating data, J6412 is almost same level as Core i3-6100U. In a word, J6412 is equal to Intel 6th /7th Core i3 performance, but lost cost as J1900/J3455 CPU level. Under such high-cost performance conditions, it is more competitive for various industrial & automation projects, which can reduce costs and increase efficiency for industrial projects.

Rich IOs and expansions - meet different needs

The rugged touch Panel PC is designed with rich IO interfaces, 2x GbE, 3x USB3.0, 3x USB2.0, 2x RS232 COM (optional 1x RS485), 2x HDMI, Audio (2-in-1 Jack), can meet different interface requirements and help information transmission more smoothly. The new touch panel display system is designed with two expansion slots (1x Mini-PCIe and 1x M.2 Key slot), can optional support 3G/4G/5G, Wi-Fi/BT wireless expansion. Also, TPC-DCS/DRS E1 provides more powerful expansion possibilities, and offer flexible and fast expansions for industrial field applications to improve product performance.



Main features:

- High strength aluminum alloy, anodized and painting treatment;
- Available 10.4", 12.1", 15.0", 15.6", 17.0", 18.5", 19.0" and 21.5";
- On-board Intel Elkhart Lake J6412 Quad-core processor;
- Intel PTT TPM2.0, support to install Win11 OS;
- Support both Pcap. Touch and resistive touch, EETI touch controller;
- 1* DDR4 memory, single slot, max. up to 32GB,
- 1* M.2 2280(NGFF) Key-M slot (PCIe x2 NVME) and 1* 2.5" SATA SSD;
- DC 12V input, optional wide voltage DC 9~36V input;
- 2 GLAN, dual wireless expansion 4G/5G, WIFI/BT support;
- 3 USB3.0, 3 USB2.0, 2 COM, 2 HDMI, Audio;
- Support Panel mount, and VESA 75/100 mount method;
- Industrial -20 ~ + 70°C operating range, optional -40~+80 °C.