DRPC-W-TGL

Fanless DIN-Rail Embedded System Tiger Lake 11th Gen Intel® Celeron® Solution (up to 4 cores)

Features

» Supported CPU:

Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)

Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W)

Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz, dual-core, TDP 15W)

Intel® Celeron® 6305/6305E 1.8 GHz (dual-core, TDP 15W)

» Support three independent display

» 3 x 2.5GbE ports

» 1 x M.2 A Key

» 1 x M.2 B Key (with SIM card slot)

» CE/FCC compliant

Specifications

Form factor	
SBC Form Factor	» Supported CPU:
	Intel® Core™ i7-1185G7E 1.8 GHz (up to 4.4 GHz, quad-core, TDP 15W)
	Intel® Core™ i5-1145G7E 1.5 GHz (up to 4.1 GHz, quad-core, TDP 15W)
	Intel® Core™ i3-1115G4E 2.2 GHz (up to 3.9 GHz, dual-core, TDP 15W)
	Intel® Celeron® 6305/6305E 1.8 GHz (dual-core, TDP 15W)
	» Chipset:
	SoC
	» System Memory:
	1 x DDR4 3200MHz SO-DIMM (pre-installed 8GB) (up to 32GB)
	» Power:
	DC Jack: 12 V DC
	» Consumption: 12V@4.1A (Intel i5-1145G7E With 8GB DDR4 Memory)
I/O Interface	
I/O Ports	» USB:
	4 x USB 3.2 Gen 2
	» Ethernet:
	LAN1: Intel® I225V 2.5GbE (I225-LM for i5/i7 SKU)
	LAN2/3: Intel® I225V 2.5GbE
	» Display:
	2 x HDMI™
	1 x DP
	» TPM:
	Support Intel PTT
	» Watchdog Timer:
	Programmable 1 ~ 255 sec/min
Expansion Slots	
Expansion Slots	» M.2:
	1 x M.2 A Key 2230 for WIFI & BT (optional)

	1 x M.2 B Key (PCIe x2) 3042/3052 w/SIM slot for 5G (optional)
System	
Cooling method / System Fan	Fanless
	4-pin external system fan connector
Drive Bays	1 x 2.5” SATA 6Gb/s HDD/SSD bay
Indicator&Buttons	
Buttons	1 x Power button
	1 x Reset button
Indicators	1 x Power LED
	1 x HDD LED
Physical Characteristics	
Construction	Extruded aluminum alloy
Color	
Color	Black
Dimensions	
Dimensions	176 x 116 x 67.8 (mm)
Weight	
Weight	0.98/1.2 Kg
Environment	
Operating Temperature	-20°C ~ 60°C with air flow
Humidity	10% ~ 95% non-condensing
Operating Vibration	10-500 Hz,1.04 Grms, random, 1 hr/axis
Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis
Safety & EMC	CE/FCC compliant
OS Support	
OS Support	Microsoft Windows 10 / Windows 11, Linux

Ordering Information

DRPC-W-TGL-U-i7C-R10	Fanless System with Intel® Tiger Lake-U Core™ i7-1185G7E 1.8GHz (up to 4.4GHz, quad-core, TDP 15W), 3 x 2.5GbE Lan, 2 x HDMI, 1 x DP, 8GB memory pre-installed, 12V DC, RoHS
DRPC-W-TGL-U-i5C-R10	Fanless System with Intel® Tiger Lake-U Core™ i5-1145G7E 1.5GHz(up to 4.1GHz,quad-core,TDP 15W),3 x 2.5GbE Lan,2 x HDMI,1 x DP,8GB memory pre-installed,12V DC,RoHS
DRPC-W-TGL-U-i3C-R10	Fanless System with Intel® Tiger Lake-U Core™ i3-1115G4E 2.2GHz(up to 3.9GHz,dual-core,TDP 15W),3 x 2.5GbE Lan,2 x HDMI,1 x DP,8GB memory pre-installed,12V DC,RoHS
DRPC-W-TGL-U-CEC-R10	Fanless System with Intel® Tiger Lake-U Celeron™ 6305E 1.8GHz(dual-core,TDP 15W),3 x 2.5GbE Lan,2 x HDMI,1 x DP,8GB memory pre-installed,12V DC,RoHS

Packing List

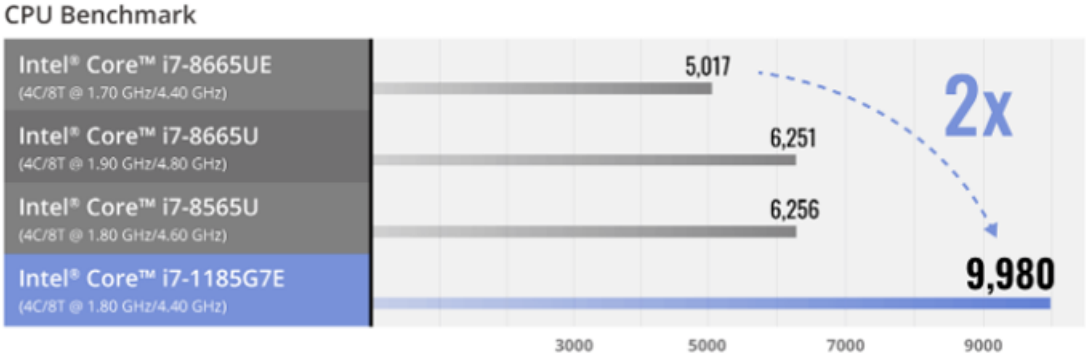
1 x DIN-rail mounting kit	1 x Screw pack
1 x SATA cable with power cable	

High Value Fanless DIN-Rail Embedded System

IEI DRPC-W series are compact, DIN-rail mounted embedded systems designed for IEI 3.5" single board computers. Its compact dimensions are appropriate for applications installed with limited space but requiring multiple I/O connectivity and enhanced performance. IEI DRPC-W series are designed to handle communication on the factory floor for IoT gateway, motion and vision applications.

Optimized for Improved Efficiency and Performance with 11th Gen. Intel® Core™/Celeron® Processor

Designed with 11th Generation Intel® Core™/Celeron® processor and Intel® UHD graphics, the DRPC-W-TGL fanless embedded system offers both excellent performance and energy efficiency. With up to 4 cores and 4.40 GHz max turbo frequency, the Intel® Core™ processor acts as the heart of the DRPC-W-TGL fanless embedded system and offers 2 times performance improvement over the predecessor Whiskey Lake.



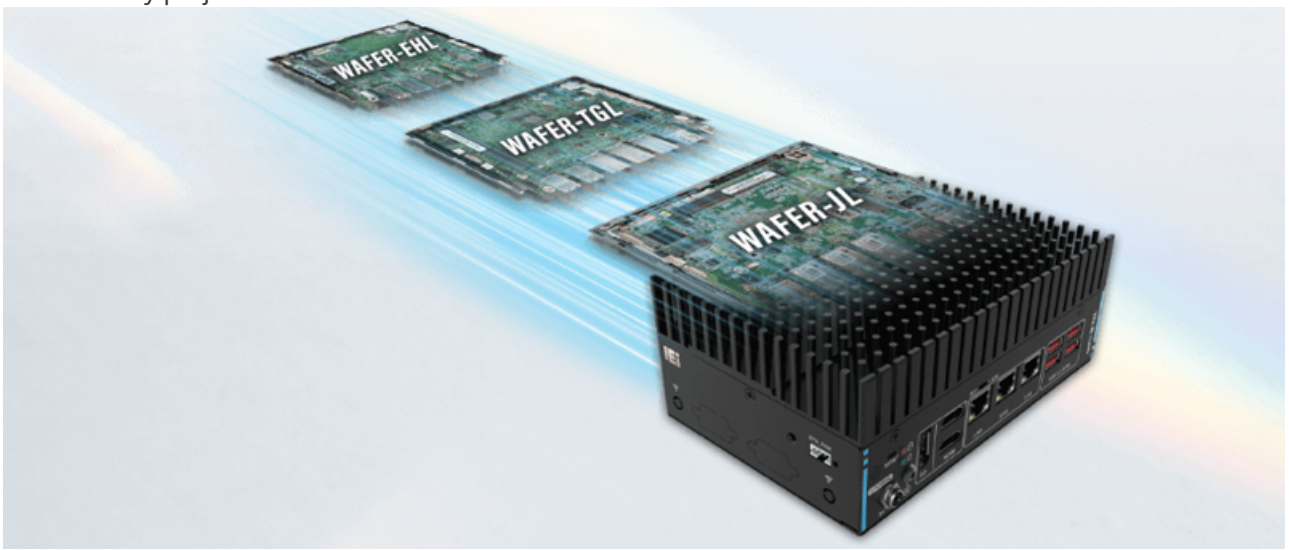
Optimized Size Saves Cabinet Space

Based on IEI's industrial-grade 3.5" embedded systems, the DRPC -W series are compact without sacrificing the flexibility in I/O expansion that is often required for IoT scalable sensor connectivity. Moreover, the front-side I/O design is easy for in-cabinet installation.

Time-to-Market Customization

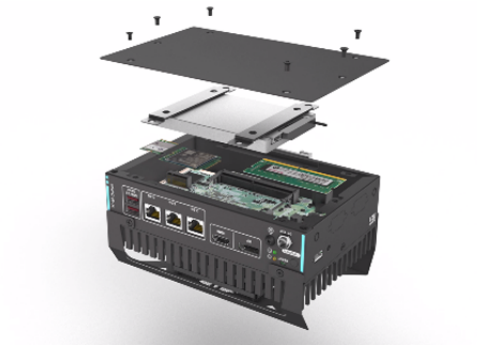
The DRPC-W series' enclosure is designed for 3.5" single board computers. With customizable I/O plates, the DRPC-W series allows customization to satisfy various requirements by using IEI's extensive 3.5" SBCs, WAFER series, offering diverse platform options from low-power to extreme performance. This helps assure an efficient and quick integration for customers' applications.

*Customized by project base



Easy Assembling & Maintenance

With an easy-to-open bottom cover, the DRPC-W series can delive r advantages of quick maintenance and Configure-to-Order Service (CTOS) for customers to reduce potential time to market and cost consumption.



» Fast assembly for all accessories

» Simple steps to open enclosure for maintenance, such as M.2, HDD, memory modules

» Accelerate system integrator's local configure-to-order assembly service for end customers

Scalable Wireless Communication Enables Remote Deployments

The DRPC-W-TGL is built with multiple wireless connectivity options necessary for remote and mobile deployments, which include Bluetooth, WiFi and 4G/LTE that enable connections with a variety of industrial IoT devices.

*Wireless M.2 modules are optional

-20°C ~ 60°C Wide Operating Temperature, Shock and Vibration Resistance

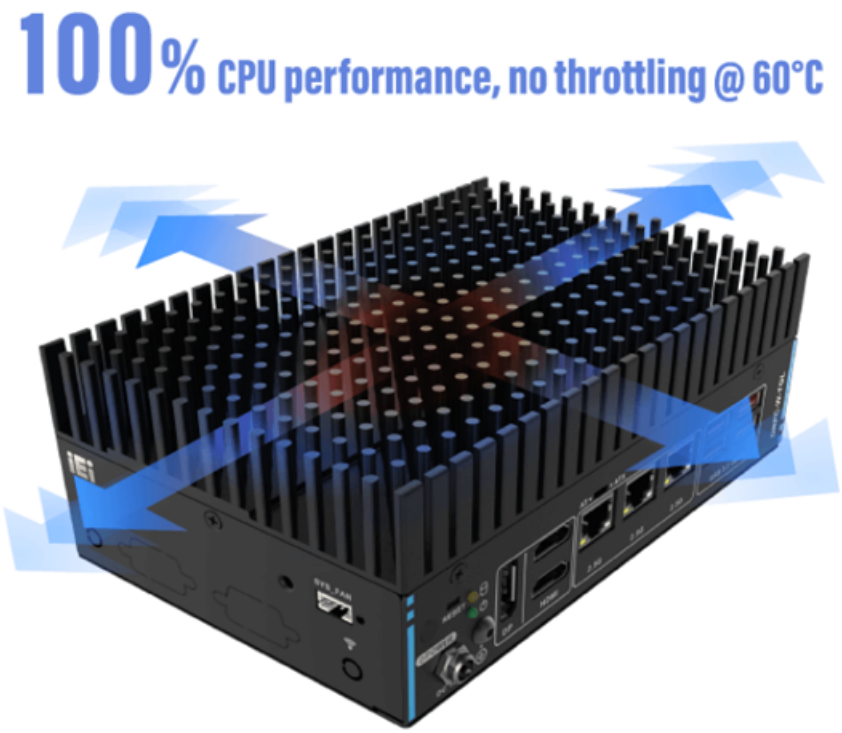
The DRPC-W-TGL fanless embedded system features a ruggedized chassis which endures strict testing and validation assurance to ensure mission-critical reliability in the most complex edge IoT computing applications. The series has garnered various safety certificaions, including CE, FCC and CB, and can therefore be marketed in countries that observe strict EMC and safety standards.

» Wide operating temperature range (-20°C to +60°C)

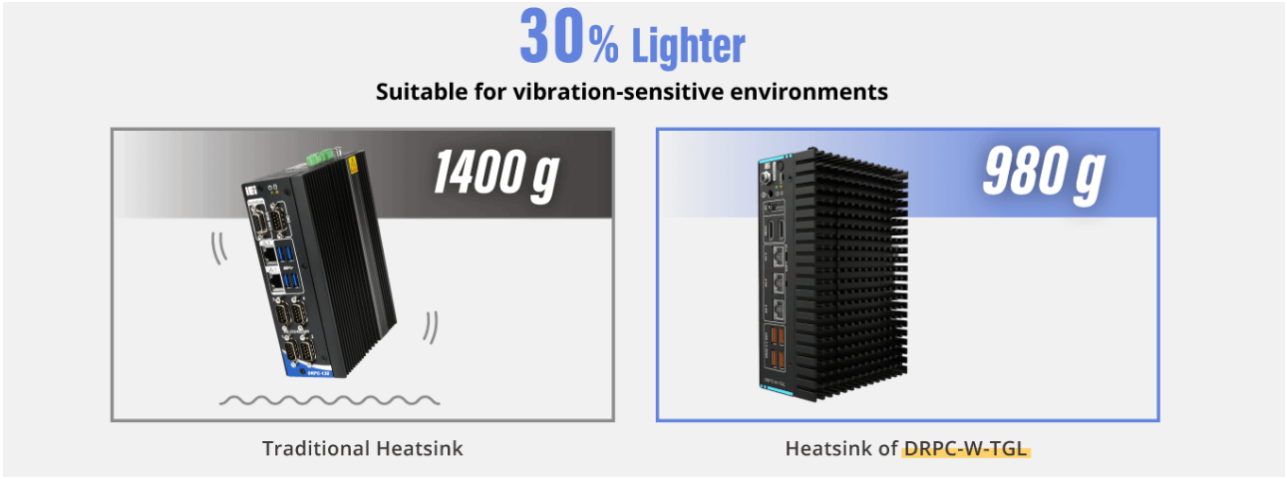
» Half-sine wave shock 5G, 11ms, 3 shocks per axis

Fanless System with Efficient Thermal Design

The DRPC-W-TGL fanless embedded system features a ruggedized chassis which endures strict testing and validation assurance to ensure mission-critical reliability in the most complex edge IoT computing applications. The series has garnered various safety certificaions, including CE, FCC and CB, and can therefore be marketed in countries that observe strict EMC and safety standards.



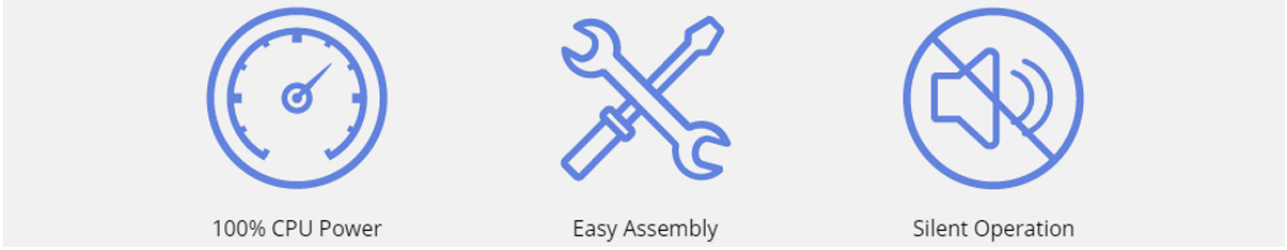
Lightweight Cooling Solution



Advanced High-efficiency Fan Kit Releases Extreme Computing Power

For computing-intensive applications, users could opt to add an external fan for an active cooling solution maintaining high system performance in high temperature environment. This design also brings high reliability by preventing dust or particles from getting into the hardware, and it is easy to disassemble and clean.

» TDP 15W -20°C ~ 60°C w/o external fan
» TDP 28W -20°C ~ 60°C with external fan

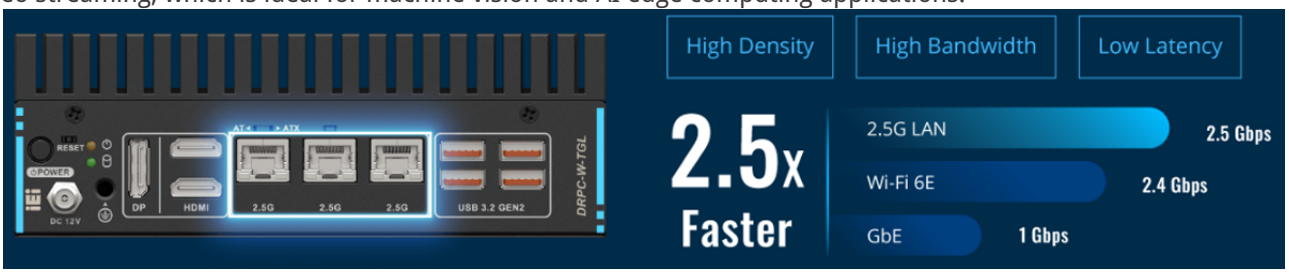


Comprehensive I/O Interface

The DRPC-W-TGL is equipped with comprehensive I/O ports, but sometimes you need more connections. The reserved openings for COM ports and antennas maximize deployment flexibility.

Triple Intel® 2.5GbE Ports

The 2.5G on-board Ethernet kicks your Ethernet connection up a notch with an up to 2.5X bandwidth improvement. The DRPC-W-TGL can meet the bandwidth-intensive requirements such as large file transfers and high resolution video streaming, which is ideal for machine vision and AI edge computing applications.



10 Gbps USB 3.2 Gen 2 Ports

With twice of the bandwidth compared to its previous generation, and backwards compatible with USB 2.0 and 3.0, the much improved USB 3.2 protocol accommodates data traffic needs of a variety of peripheral technologies for external storage devices, RAID enclosure, high-resolution digital cameras, webcam, video devices, and all other USB electronic devices.

Dual 4K Display with Immersive Graphics and Media Performance

The DRPC-W-TGL is equipped with Intel® UHD Graphics @450 MHz to display videos and images in stunning 4K resolutions. Among its dual independent display ports, the HDMI™ 1.4 and DisplayPort 1.4 can both support up to 4K high resolution. The DRPC-W-TGL empowers manufacturers to access clearer analysis and management via panel displays or interactive displays in intelligent factories and machine automation processes.

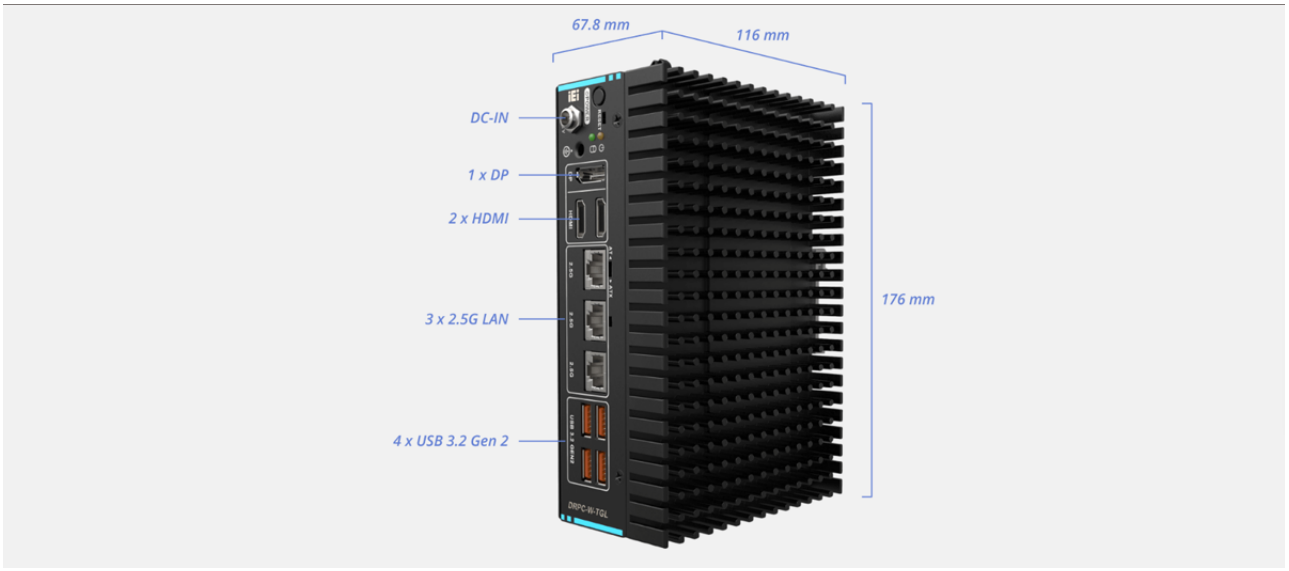
Industrial Robotic Solution

IEI's DRPC-W series features optimal IoT integration capability to offer faster connection speed, larger bandwidth, and rich I/O interface to easily connect with PLM, collaborative robotic arms, sensors or control centers through 2.5GbE LAN ports and USB 3.2 Gen 2 ports.

Warehouse Management Solution

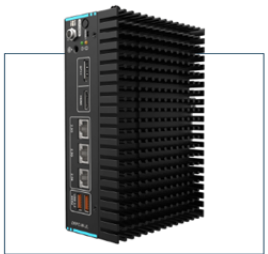
IEI's DRPC-W series features up to three 2.5GbE LAN port to connect with IP cameras for real-time access and storage control, and also rich USB ports for multi-device connection. Moreover, it is designed with flexible expansions to support well communication through 5G, Bluetooth or Wi-Fi modules.

Hardware I/O & Dimensions:



Selection of DRPC-W Total Solution

The DRPC-W is a series of compact DIN-rail embedded system with fanless design developed for entry, middle to high-end 3.5" single board computers, IEI WAFER series.



DRPC-W-JL

- » Intel® Celeron® N5105 processor
- » DIN-rail palm-size for limited space
- » Fanless -20°C ~ 60°C operating temp
- » 3 x 2.5 GbE, 2 x USB 3.2
- » Dual display via HDMI & DP
- » 1 x M.2 A key for Wi-Fi & BT
- » 1 x M.2 B key for 5G/NVMe/AI accelerator

DRPC-W-EHL

- » Intel® Celeron® J6412 processor
- » DIN-rail palm-size for limited space
- » Fanless -20°C ~ 60°C operating temp
- » 2 x 2.5 GbE, 2 x USB 3.2
- » Dual display via HDMI & DP
- » 1 x M.2 A key 2230 for Wi-Fi & BT
- » 1 x M.2 B key for 5G

DRPC-W-TGL

- » Intel® Core™ i5-1145G7E/Intel® Celeron® 6305 processor
- » DIN-rail palm-size for limited space
- » Fanless -20°C ~ 60°C operating temp
- » 3 x 2.5 GbE, 4 x USB 3.2
- » Triple display via 2 HDMI & DP
- » 1 x M.2 A key 2230 for Wi-Fi & BT
- » 1 x M.2 B key for 5G