

# RES

# 5000

IP67 Rugged Embedded System

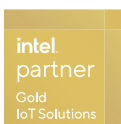
Intel® Core™ i7 SoC, Fanless -40°C to 70°C Operation



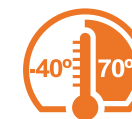
- Onboard Intel® Core™ i7-1185G7E processor delivers high power CPU productivity, up to 15W TDP
- Reliable IP67 protection
- Rugged connections : 2 X-coded M12 GigE LAN, 2 A-coded M12 COM RS-232/422/485, 2 USB3
- Intel® vPro, TSN, TCC, and TPM 2.0 supported
- DC 9V to 55V wide range power input, Ignition Power Control
- Fanless -40°C to 70°C Operating Temperature
- Supports waterproof antenna for 5G/WiFi/4G/LTE

**Reliable IP67 Protection | Ultra Compact Integration**  
**Fanless Design | High-Powered CPU**

The Rugged Science RES-5000 Rugged Embedded System utilizes the Intel® Core™ i7-1185G7E processor to provide robust CPU performance with a TDP of up to 15W. Designed with IP67 protection, this system is ideal for AI tasks in challenging environments. The RES-5000 is equipped with 2 X-coded M12 GigE LAN ports, 2 A-coded M12 COM ports, and 2 USB 3 ports, and it operates in temperatures ranging from -40°C to 70°C. Featuring versatile industrial capabilities such as a wide-range DC 9V to 55V power input, Ignition Power Control, and a waterproof antenna supporting 5G/WiFi/4G/LTE, the RES-5000 is the perfect solution for Irrigation Systems, Smart Factories, Outdoor Automation, and a variety of Edge AI applications.



OpenVINO™



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**RUGGED**  
SCIENCE

# Specifications

## System

Processor	Onboard Intel® Core™ i7-1185G7E Processor (Tiger Lake UP3)
Chipset	Intel® SoC
Graphics	Intel® Iris® X® Graphics
BIOS	AMI
SIO	IT8786E
Memory	1 DDR4 3200MHz SO-DIMM, up to 32GB
OS	Windows 11, Windows 10, Linux

## I/O Interface

Serial	2 COM RS-232/422/485, A-coded M12 Connector
USB	2 USB 3.1 Gen 2, IP67 Waterproof USB Type-A
LED	Power, HDD
Display	IP67 Waterproof DisplayPort : Up to 4096 x 2304 @60Hz

## Storage

SATA	1 SATA III (6Gbps)
M.2	1 M.2 Key B Socket (2260/2242, PCIe x2)
Storage Device	- 1 Internal 2.5" SSD/HDD Bracket - 1 M.2 Key B Socket

## Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT, X-coded M12 Connector
LAN 2	Intel® I226 2.5GigE LAN supports TSN, X-coded M12 Connector

## Power

Power Input	DC 9V to 55V
Power/IGN Interface	A-coded M12 4-pin Connector
Ignition Control	16-mode Ignition Control
Power Switch	IP67 Waterproof Power Button

## Others

TPM	Infineon SLB9670 supports TPM 2.0, SPI Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

## Mechanical

Dimensions	200mm x 200mm x 80mm (7.87" x 7.87" x 3.32")
Weight	2.4kg (5.29lb)
Mounting	Wallmount by mounting bracket

## Environment

Operating Temperature	-40°C to 70°C (-40°F to 158°F)
Storage Temperature	-55°C to 85°C (-67°F to 185°F)

## Environment (cont.)

Vibration	- IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

## Order Information

Model	LAN		COM	USB 3.0	DP
	2.5G	1G			
RES-5000-1185G7E	1	1	2	2	1

## Dimensions & Drawing

Unit : mm (inch)

