

# iROBO-5501 Serie

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Intel® 6th-Gen Core™ i7/i5/i3 Compact Fanless Embedded Controller with 3x GbE



CE FC

## Key Features

- Compact 221 x 173 x 76.2 mm footprint
- Supports Intel® 6th-Gen Core™ i7/ i5/ i3 LGA 1151 socket CPU
- Rugged, -25°C to 70°C fanless operation
- 3x GbE and 4x USB 3.0 ports
- 2x RS-232/ 422/ 485 ports and 2x RS-232 ports
- VGA + DVI dual display outputs
- Accommodates one 3.5" HDD or 2.5" HDD/ SSD
- Optional 8-CH isolated DI and 8-CH isolated DO

## Introduction

iROBO-5501 series features compact fanless embedded controllers for the cost and space conscious. Based on Intel® Skylake platform, it is designed to provide cutting-edge performance and reliable operation in extreme environment. Its LGA 1151 socket offers users the flexibility to select a 35W CPU from 6th-Gen Intel® Core™ i to Celeron® lineup to suit application needs.

iROBO--5501 is the most compact fanless embedded controller supporting Skylake LGA 1151 socket CPUs, measuring just 221 x 173 x 27 mm it is easy to deploy in restricted spaces. In its compact enclosure, iROBO--5501 features rich, front-accessible I/Os including 3x GbE, 4x USB 3.0 and 4x COM ports. There is even enough room for a 3.5" HDD that is compatible with the latest storage capacities.

The compact iROBO-5501 is a cost-effective solution that does not compromise on performance and reliability, making it the ideal embedded controller for various industrial applications.

## Specifications

### System Core

Processor	Supports following CPUs Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz, 35W TDP) Intel® Core™ i5-6500TE (6M Cache, 2.3/ 3.3 GHz, 35W TDP) Intel® Core™ i3-6100TE (4M Cache, 2.7 GHz, 35W TDP) Intel® Pentium® G4400TE (3M Cache, 2.4 GHz, 35W TDP) Intel® Celeron® G3900TE (2M Cache, 2.3 GHz, 35W TDP)
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Chipset	Intel® H110 platform controller hub
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Graphics	Integrated Intel® HD 530/510 controller
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Memory	Up to 16GB DDR4-2133 (single SO-DIMM)
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### I/O Interface

Ethernet port	1x Gigabit Ethernet port (via Intel I219-LM) 2x Gigabit Ethernet port (via Intel I210-IT)
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USB	4x USB3.0 ports 2x USB2.0 ports
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Video port	1x VGA connector 1x DVI-D connector
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Serial Port	2x software-programmable RS-232/ 422/ 485 ports 2x RS-232 ports
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Isolated DIO	8-CH isolated DI and 8-CH isolated DO (optional)
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### Storage Interface

SATA HDD	1x internal SATA port for 3.5" HDD or 2.5" HDD/ SSD
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mSATA	1x full-size mSATA socket
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### Expansion Bus/ Internal I/O Interface

mini-PCIe	1x full-size mini PCI Express socket
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M.2	1x M.2 B key socket for 3G/4G options with SIM socket
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USB	1x internal USB2.0 port
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Remote Ctrl. & Status Output	1x 2x6-pin 2.0mm pin-header connector for remote on/off control and status LED output
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### Power Supply

DC Input	1x 3-pin pluggable terminal block for 8–35 VDC power input
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### Mechanical

Dimension	221 mm (W) x 173 mm (D) x 76.2 mm (H)
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Weight	2.8 kg (incl. CPU, GPU, memory and HDD)
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Mounting	Wall-mount (standard) or DIN-rail mount (optional)
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### Environmental

Operating Temperature	-25°C ~ 70°C */**
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Storage Temperature	-40°C ~ 85°C
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Humidity	10%~90% , non-condensing
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Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)
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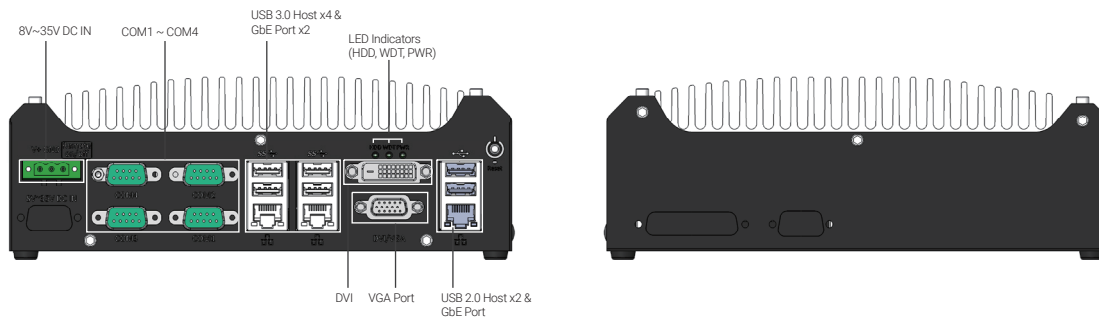
Shock	Operating, 50 Grms, half-sine 11 ms duration (w/ SSD, according to IEC60068-2-27)
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EMC	CE/FCC Class A, according to EN55022, EN55024 & EN55032
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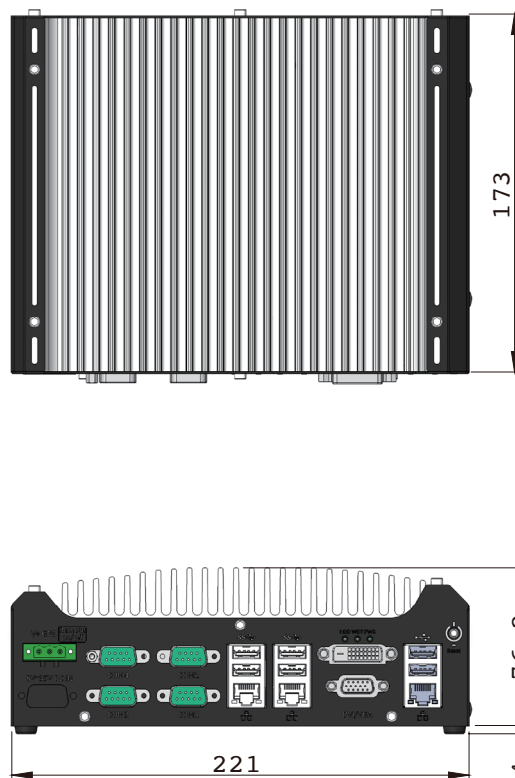
\* The 100% CPU loading is applied using Passmark® BurnInTest 8.1. For detail testing criteria, please contact Neusys Technology

\*\* For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

## Appearance



## Dimensions



## Ordering Information

Model No.	Product Description
<b>iROBO-5501</b>	Intel® 6th-Gen Core™ i7/ i5/ i3 compact fanless embedded controller with 3x GbE
<b>iROBO-5501-DIO</b>	Intel® 6th-Gen Core™ i7/ i5/ i3 compact fanless embedded controller with isolated DIO & 3x GbE

## Optional Accessories

DIN-rail mounting kit  
120W AC/DC power adapter