

5th Generation Intel® Core™ i5-5350U Processor Evaluation Kit Based on Intel® Intelligent System Extended (ISX) Form Factor Reference Design

5th Generation Intel® Core™ i5-5350U Processor Markets and Channels Acceleration (IOTG)



Included in the Evaluation Kit

This evaluation kit is a complete system in a chassis and includes the following items:

- Evaluation board with the 5th generation Intel® Core™ i5-5350U processor installed
- New form factor based on Intel® Intelligent System Extended (ISX) Form Factor Reference Design
- 2 × 4GB (512M × 64) 204-Pin DDR3L 1600MHz SDRAM Unbuffered SODIMM
- 64GB Solid-State Drive (SSD)
- 802.11 a/b/g/n Wi-Fi module with dual antennas
- 12V @4A DC Power Brick
- System Drivers and User Guide (CD)

Building Pathways of Information for Internet of Things Applications

Intel delivers seamless information connectivity—creating pathways from connected devices on the physical world to servers on the cloud—through a broad selection of Intel processors and solutions. The 5th Generation Intel® Core™ i5-5350U Processor Evaluation Kit Based on Intel® Intelligent System Extended (ISX) Form Factor Reference Design delivers superior CPU and graphics performance, lower power consumption and greater I/O connectivity options in a fanless design that takes up very little space.

Enabling a Fanless Design for Reliable Operation

Performance optimizations in CPU design and enhancements to the dynamic power and thermal framework in the 5th generation Intel® Core™ processor contribute to enabling a fanless design in a small form factor, yet delivering up to 20% improvement in multi-threaded performance.

The processor in the evaluation kit is an ultra low voltage dual-core processor and integrates the Intel® HD Graphics 6000 GPU that supports higher resolution 4K displays. Dual-channel 48-bit LVDS support is included, which reduces the bill of materials for system integrators and enables support for the latest DisplayPort technologies.

Providing Rich I/O Connectivity

Developers have a flexible evaluation kit that they can modify or use as-is for their IoT solutions. Wired connectivity is via external ports on the evaluation kit that include four USB 3.0 ports, two USB 2.0 ports, and two Gigabit Ethernet LAN ports; included are two RS-232 headers for legacy devices. For wireless connectivity, the evaluation kit includes a dual-antenna Wi-Fi module.

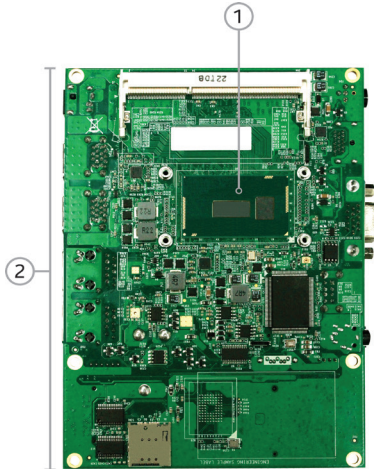
The evaluation kit has an SPI program header—enabling communication with sensors, controllers, and flash memory cards—to provide visibility of the level of hardware signals for developing and troubleshooting systems.

Storage is provided by a 64GB solid-state drive (SSD) connected to one full-size mini PCIe slot (the evaluation kit comes with two full-size mini PCIe port, a half-size mini PCIe slot, a Micro SIM slot, and a SATA port). A Port 80 LPC header is included so developers may choose to connect to the header a flash memory chip containing the BIOS, operating system, and applications.

Included are an Intel® eXtended Debug Port (XDP) connector and debug headers that provide software vendors, driver developers, and system integrators additional system debug resources and expansion for future capabilities.

1. 5th Generation Intel® Core™ i5-5350U Processor

Ultra low voltage technology for reduced size and power consumption, without sacrificing performance

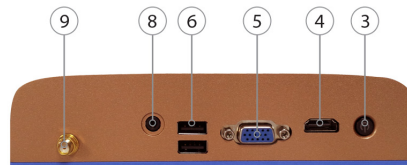


2. Convenient and Flexible I/O Connectivity

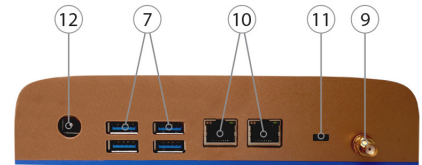
- 1 × Full-size mini PCIe connector (3G)
- 1 × Full-size mini PCIe connector (MSATA)
- 1 × Half-size mini PCIe connector (Wi-Fi)
- 1 × SATA 3.0 connector
- 1 × Port 80 LPC header
- 1 × XDP connector
- 1 × Micro SIM card connector
- 1 × LVDS signal header
- 1 × Debug header
- 1 × SPI program header
- 1 × Intel® APS header
- 1 × iSSD (optional)

3. Power Button

- 4. HDMI Connector
- 5. VGA Port
- 6. USB 2.0 Port
- 7. USB 3.0 Port
- 8. Single Port Audio Jack (line out and microphone)
- 9. Antenna SMA Connector
- 10. Gigabit Ethernet Port
- 11. Kensington® Security Slot
- 12. Power Jack



Front Panel



Back Panel

TECHNICAL SPECIFICATIONS

PROCESSOR

- 5th generation Intel® Core™ i5-5350U processor
- Supports Intel® Turbo Boost Technology¹ and Intel® Hyper-Threading Technology¹
- Supports Intel® 64 architecture²
- Enables full SATA interface speed of up to 6Gb/s for Solid-State Drives
- Supports Intel® High Definition Audio

GRAPHICS

- Intel® HD Graphics 6000
- Supports Intel® Quick Sync Video Technology
- HDMI, VGA, and LVDS connectors supporting three independent displays

AUDIO

- Output via HDMI output
- Microphone and line out jack

PERIPHERAL CONNECTIVITY

- Two Gigabit Ethernet LAN ports for improved network throughput
- SIM card slot for 3G support
- Built-in Wi-Fi support with dual antennas
- Two Hi-Speed USB 2.0 ports
- Four Super Hi-Speed USB 3.0 ports
- Two RS-232 headers

SYSTEM BIOS

- 128Mb SOIC-8 serial flash memory

SYSTEM MEMORY

- 2 × 4GB DDR3L 1600MHz memory support (16GB³ maximum)

STORAGE

- 64GB Solid-State Drive (SSD)

MECHANICAL CHASSIS SIZE

- 4.6" × 7.2" × 1.7"

POWER REQUIREMENTS

- Single 12V DC input

OPERATING TEMPERATURE

- 0°C to +35°C

NON-OPERATING TEMPERATURE

- -10°C to +70°C (with chassis)

OPTIONAL ACCESSORIES

- Other DDR3L memory configurations
- Other Solid-State Drive (SSD) configurations
- Other Integrated Solid-State Drive (iSSD) configurations

For more information on the 5th Generation Intel® Core™ i5-5350U Processor Evaluation Kit based on Intel® ISX Form Factor Reference Design, visit <http://www.intel.com/content/www/us/en/intelligent-systems/intelligent-system-extended-modular-board-design.html>



¹ Intel® Turbo Boost Technology, Intel® Hyper-Threading Technology, and Intel® Virtualization Technology require a computer system with a processor, chipset, BIOS, enabling software and/or operating system, device drivers, and applications designed for these features. Performance will vary depending on your configuration. Contact your vendor for more information.

² 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See <http://developer.intel.com/technology/intel64/index.htm> for more information.

³ To access 16GB of memory requires a 64-bit version of the Windows operating system to be installed on the evaluation kit.

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