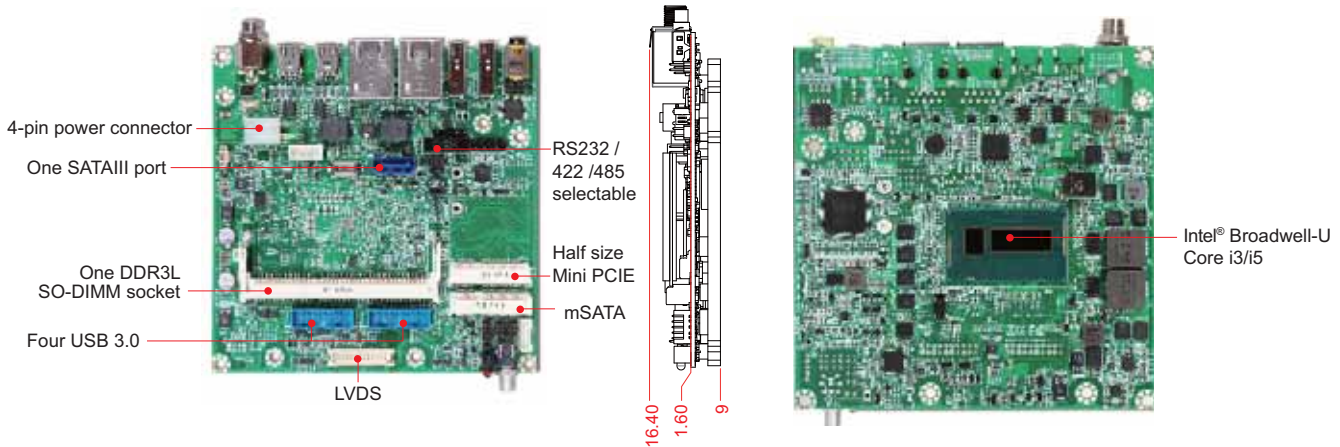# NANO-6050

Intel® 5th Gen Core™ i5/i3 ULT Processor based on NANO-ITX Board with Triple display, GbE LAN, USB 3.0, Mini-PCIe, Combo Audio jack, SATA III, and mSATA

- 4-pin power connector
- One SATAIII port
- One DDR3L SO-DIMM socket
- Four USB 3.0
- LVDS
- RS232 / 422 /485 selectable
- Half size Mini PCIE
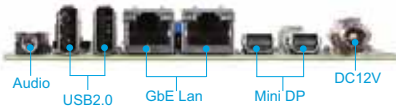- mSATA
- Intel® Broadwell-U Core i3/i5

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NANO-6050 build with Intel® 5th Gen Core™ i5/i3 ULT processor and takes advantages of Intel® Core™ mobile processor technologies such as Hyper-Threading, high performance, and low power consumption. Portwell NANO-6050-based systems are ideal for passively cooled and hermetically sealed systems that can be used in various environments. NANO-6050 is an ideal platform with HD graphic output for POS, kiosk, digital signage and transportation applications.

FEATURES

- Intel® 5th Gen Core™ i5 and i3 processor
- Supports one DDR3L 1600/1333 SO-DIMM up to 8GB
- Supports Triple display by Dual mini DP ports , and dual channel 24 bit LVDS
- Supports one SATA III, one mSATA, and four USB 3.0 ports
- Supports one half size Mini-PCIe socket
- Supports DC 12V input
- Supports TPM 2.0 (Option)

REAR/IO

- Audio
- USB2.0
- GbE Lan
- Mini DP
- DC12V

ORDERING GUIDE

AB1-3C88	**(R).NANO-6050-5350U.** Nano-ITX ESB. Intel® Core™ i5-5350U 1.8GHz Dual Core.w/DDR3L SO-DIMM/ 24bit LVDS/Dual Mini DP/Dual GbE LAN/USB/mSATA
AB1-3C89	**(R).NANO-6050-5010U.** Nano-ITX ESB. Intel® Core™ i3-5010U 2.1GHz Dual Core.w/DDR3L SO-RAM/ 24bit LVDS/Dual Mini DP/Dual GbE LAN/USB/mSATA

PACKING LIST

One NANO-6050 NANO-ITX Main Board
One Passive Heat Spreader
One Installation CD

GENERAL

Processor	- Intel® 5th Gen Core™ i5/i3 ULT processor in FCBGA1168 package - With 3MB Cache - Support Intel® Hyper-Threading Technology, Virtualization Technology (VT-x), Small Business Advantage
BIOS	AMI uEFIBIOS
Memory	One DDR3L 1600/1333 SO-DIMM up to 8GB
Storage Devices	- One SATA III port - One mSATA socket
Watchdog Timer	Programmable by embedded controller
Hardware Monitoring	- Temperature (CPU & System) - Voltage (CPU Vcore, 12V, 5V, 3.3V, RAM)
Expansion Interface	One half size Mini-PCIe socket

I/O INTERFACE

Audio	- HDA controller integrated in Intel® SoC - Realtek ALC892 HDA codec, Audio Combo Jack on rear I/O with Line-out/Mic in and on board pin header with Line-in, Line-out, Mic-in
Ethernet	- Intel® I218AT GbE controller - 2x RJ45 connector on rear I/O
Serial Port	1x RS-232/422/485 on board connector (selected by bios)
USB	- 2x USB 2.0 ports on rear I/O - 4x USB 3.0 ports on board
GPIO	8-bit configurable controlled by embedded controller

DISPLAY

Graphic Controller	- Intel® HD Graphics 5500/6000 supports DirectX11.2, OpenGL 4.3 / OpenCL 2.0 - Video decode HW acceleration support for H.264/AVC, VC-1, MPEG2, VP8
Display Interface	- LVDS: Dual channel 24bit LVDS on board connector, up to 1920x1200@60Hz - 2x Mini DP on Rear I/O, up to 3840x2160

Mechanical & Environment

Dimension	120(L) x 120(W) mm; 4.72"(L) x 4.72"(W)
Power Supply	DC 12V input
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 85°C - Relative Humidity: 5% to 95%, non-condensing
Certification	CE,FCC Class B
MTBF	Over 100,000 hours at 40°C

GPIO · 2 GbE · EC · SATA 6.0 · AMI BIOS · H/W Monitor · LVDS · USB 3.0 · Watch DOG · Fanless · DDR 3