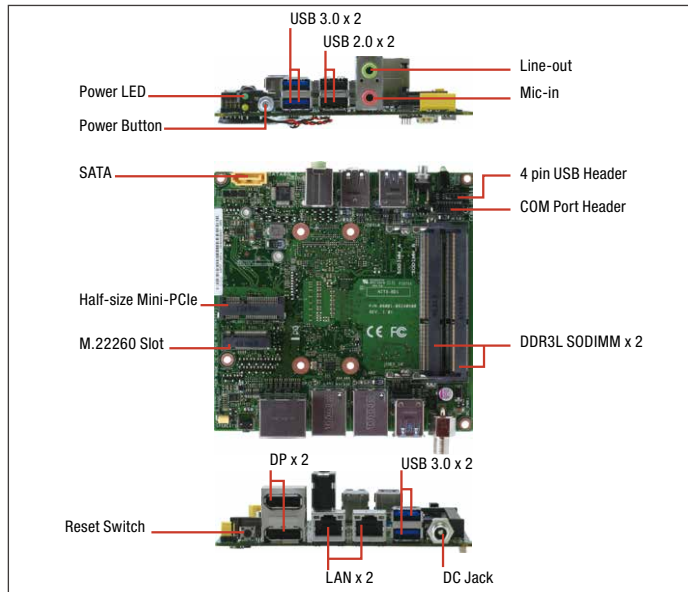


Intel® 5th Gen. Processor Nano-ITX Board with DP x 2, LVDS x 1 and USB Port x 7



Specifications

System	
Processor	Intel® 5th gen. 14nm ULT i7-5650U/ i5-5350U/ i3-5010U, BGA CPU, 15W TDP.
Chipset	Integrate into SoC
Memory	SODIMM x 2, max. 16GB, DDR3L 1600 MHz, non-ECC, un-buffered memory
Graphics	Integrated Graphics LVDS via Chronitel CH7511, support by add on M2 module
I/O Chipset	NCT5538D
Ethernet	Realtek 8111G Giga LAN 10/100/1000Mb LANs x 2, RJ-45 x 2
Audio	Realtek® ALC887
TPM	—
Expansion Slots	M.2 slot (M-key) x 1, length: 60mm (mSATA colay LVDS), auto detect, Mini-Card half size (USB+PCIe+mSATA) x 1, default USB+PCIe, mSATA BOM change
BIOS	128M bit Flash ROM, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on Chassis
WatchDog Timer	1~255 steps by software program
Smart Fan Control	Chassis Fan
Wake On LAN/ PXE	Yes (WOL/PXE)
Power State	S3, S4, S5
Graphics	
Graphics Chipset	Integrated Graphics, LVDS via Chronitel CH7511, support by add on M2 module
Graphics Multi Display	DP1+DP2+LVDS, DP1+DP2, LVDS+DP1, LVDS+DP2
VGA	—
DVI	—
HDMI	—
Display Port	DP 1.2a (U): 3840 x 2160, (H): 4096 x 2304
LVDS	1920 x 1200
eDP	—
Backlight Control	Yes
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	DC power jack x 1 (DC: 12V~19V, wide rage: 12V-5%~ 19V+10%)
Operating Temperature	32°F ~ 131°F (0°C ~ 50°C)
Storage Temperature	-40°F ~185°F (-40°C ~85°C)
Operating Humidity	20% ~ 90% RH, non-condensing
Certificate	CE & FCC class A
Form Factor	NANO ITX: 120mm x 120mm (4.72" x 4.72")
Weight	—
MTBF (Hours)	434,910
Front Panel I/O Ports	
USB	USB 3.0 port x 2, USB 2.0 port x 2, USB header support USB 2.0 port x 1 (p=2.00mm)
Display I/O	—
Audio I/O	Audio jack x 2: Line-out (green), Mic-in (pink)

Features

- Intel® 5th Generation ULT 15W Processor
- Three Independent Display: Display Port x 2, LVDS Port x 1 (Optional)
- Dual Gigabit Ethernet
- USB 3.0 Port x 4, USB 2.0 Port x 3
- Mini-PCIe Slot x 1, M.2 Slot x 1



LAN I/O	—
Serial Port	—
PS/2 Port	—
Others	On/Off Button x 1, Power LED + HD LED x 1
Rear Panel I/O Ports	
USB	USB 3.0 port x 2
Display I/O	DP connector x 2
Audio I/O	—
LAN I/O	RJ-45 connector x 2
Serial Port	—
PS/2 Port	—
Others	Reset Switch x 1, DC power jack x 1, Antenna output x 1 (from internal Mini-Card)
Internal I/O Connectors	
Storage	SATA 6.0 Gb/s port x 1, M.2 slot for mSATA x 1 (optional)
USB	USB header support USB 2.0 port x 1 (p=2.00mm)
Display I/O	LVDS connector x 1, support by add on M.2 module
Audio I/O	—
Serial Port	COM port header x 1, p=1.25mm (RS-232)
PS/2 Port	—
Parallel Port	—
DIO	—
FAN	Chassis Fan connector x 1 (3-pin, p=2.00mm)
Power	SATA power connector x 1, support by add on M.2 module, int. 2-pin reset switch x 1, int. 2-pin power switch x 1,
Others	Mini-Card half size x 1 (USB+PCIe+mSATA, default USB+PCIe, mSATA BOM change), LVDS inverter x 1, support by add on M.2 module
OS	
OS Support	Windows® 7 32/64-bit, Windows® 8.1 32/64-bit, Windows® 10 64-bit, Linux Fedora

Packing List

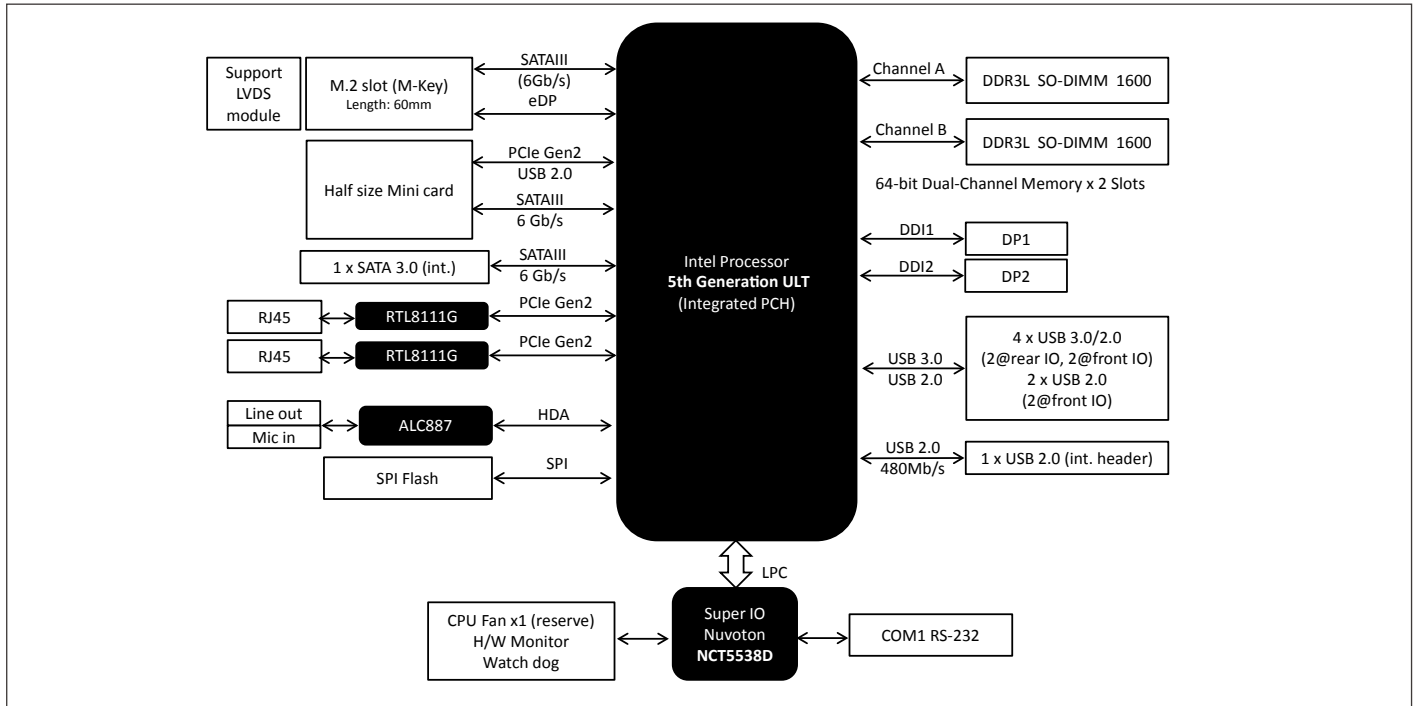
- NITX-BD1
- Product DVD

Optional Accessories

Part Number	Description
PER-V03B-A10	M2 (M-KEY), LVDS module
1702150300	SATA Power Cable (4P, 300mm, P=2.54mm)
968C032G0Z	M.2 2260 32G SSD
968C064G1G	M.2 2260 64G SSD
968C128G1L	M.2 2260 128G SSD
968C256G0C	M.2 2260 256G SSD
968C512G07	M.2 2260 512G SSD
1701090150	(TF)Flat Cable.D-Sub 9(M).9P Housing.9P 1.25mm pitch Housing.15cm

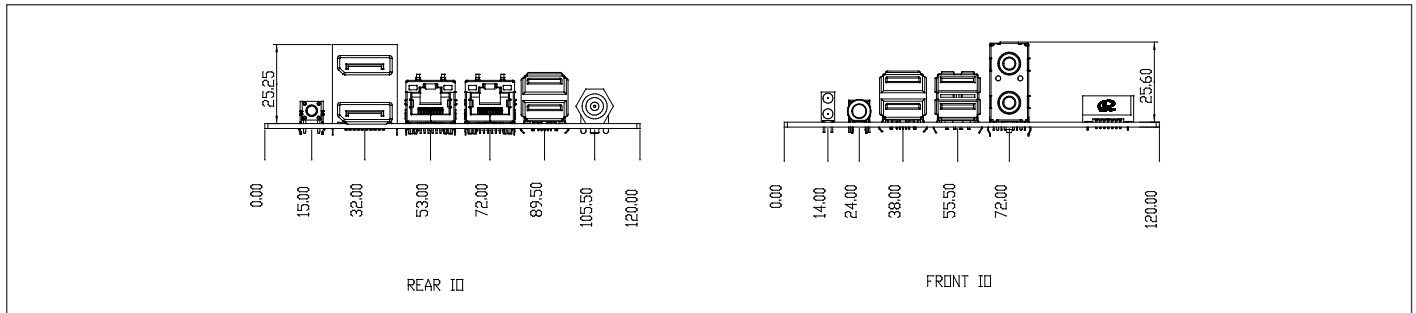
NITX-BD1

Block Diagram



Dimension

Unit: mm



Order Information

Part number	CPU	RAM	Fan/ Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp.
NITX-BD1-A10-5650	I7-5650U 2.2G/4M	DDR3 1600/1333	Fan/Fanless	DP x 2	SATA3 x 1	support by add on M.2 module	GbE x 2	USB3 x 4, USB2 x 2, Int. USB2 x 1	Int. RS-232 x 1	0	M.2 x 1, Mini PCI-E x 1	DC12-19V	—	32°F -140°F (0°C ~ 60°C)
NITX-BD1-A10-5350	I5-5350U 1.8G/3M	DDR3 1600/1333	Fan/Fanless	DP x 2	SATA3 x 1	support by add on M.2 module	GbE x 2	USB3 x 4, USB2 x 2, Int. USB2 x 1	Int. RS-232 x 1	0	M.2 x 1, Mini PCI-E x 1	DC12-19V	—	32°F -140°F (0°C ~ 60°C)
NITX-BD1-A10-5010	I3-5010U 2.1G/3M	DDR3 1600/1333	Fan/Fanless	DP x 2	SATA3 x 1	support by add on M.2 module	GbE x 2	USB3 x 4, USB2 x 2, Int. USB2 x 1	Int. RS-232 x 1	0	M.2 x 1, Mini PCI-E x 1	DC12-19V	—	32°F -140°F (0°C ~ 60°C)