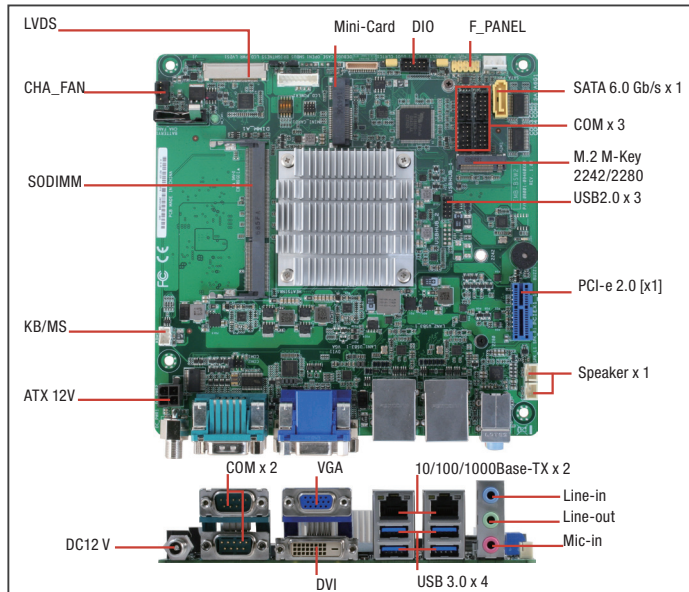


## Mini-ITX Embedded Motherboard with Intel® N3060 (DC) Processor



## Specifications

System	
Processor	Intel® Celeron®N3060 Processor, (2C @ 2.48GHz CPU (Burst Mode), 320/600MHz GFX (Turbo), ~6W TDP)
Chipset	Integrated into SoC
Memory	DDR3L 1333/1600 MHz SODIMM x 1, max. 8GB, non-ECC, un-buffered memory
I/O Chipset	NCT6116D
Ethernet	Realtek PCIe Gb LAN 8111G x 2
Audio	Realtek® ALC3236-CG
TPM	—
Expansion Slots	PCIe2.0 [x1] x 1 M.2 M-key (2242/2280) x 1, for SATA (default:2280) Full-size Mini Card(Pcie +USB) x 1
BIOS	64Mbit Flash ROM x 1, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 steps by software program
Smart Fan Control	Chassis Fan x 1 (Fanless)
Wake On LAN/PXE	Yes (WOL/PXE)
Power State	S3, S4, S5
Graphics	
Graphics Chipset	Intel® HD Graphics
Graphics Multi Display	Three Independent Display
VGA	Up to 1920 x 1200 @60Hz
DVI-D	Up to 1920 x 1200 @60Hz
HDMI	—
Display Port	—
LVDS	Up to 1920 x 1200 @60Hz, Dual Channel 18/24 bit (via PS8625)
eDP	—
Backlight Control	Voltage/PWM, use HW control
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	12V DC input (back panel DC jack) x 1; 4-pin ATX 12V Power connector x 1
Operation Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operation Humidity	0% ~ 90% RH, non-condensing
Certificate	CE & FCC Class A
Form Factor	Mini-ITX: 6.7" x 6.7" (170mm x 170mm)
Weight	1.1 lb (0.5 Kg)
MTBF (Hours)	337,940

## Features

- DDR3L 1333/1600 MHz SODIMM x 1, Up to 8 GB
- Three Independent Display: VGA x 1, DVI-D x 1, LVDS x 1
- Realtek 8111G, Gigabit Ethernet x 2
- COM Port x 5 (RS-232 x 4, RS-232/422/485 x 1)
- 12V DC Power Input
- M.2 (M-key) x 1, PCIe2.0 [x1] x 1, mPCIe x 1



## Rear Panel I/O Ports

USB	USB 3.0 x 4
Display I/O	DVI-D x 1, VGA x 1
Audio I/O	Mic-in, Line in, Line-out
LAN I/O	RJ-45 x 2
Serial Port	COM x 2 (RS-232 x 1, RS-232/422/485 x 1)
PS/2 Port	—
Others	Lockable DC power jack x 1

## Internal I/O Connectors

Storage	SATA 6.0Gb/s x 1, M.2 M-key (2242/2280) x 1, (default:2280)
USB	USB 2.0 headers (2*5-pin, p=2.00mm) x 2, support additional 3 USB ports
Display I/O	40-pin LVDS connector x 1
Audio I/O	Speaker (2W) x 1
Serial Port	RS-232 box header x 3
PS/2 Port	PS/2 header x 1
Parallel Port	—
DIO	8-bit x 1 (In/Out programmable)
FAN	4-pin Chassis Fan x 1
Others	Front panel header x 1, Clear CMOS jumper x 1, AT/ATX mode select jumper x 1, SATA power connector x 1, 4-pin ATX 12V Power connector x 1
OS	
OS Support	Windows® 7 32 / 64bit, Windows® 8.1 64bit, Windows® 10 64bit, Ubuntu16.04.02/Kernel4.8.0

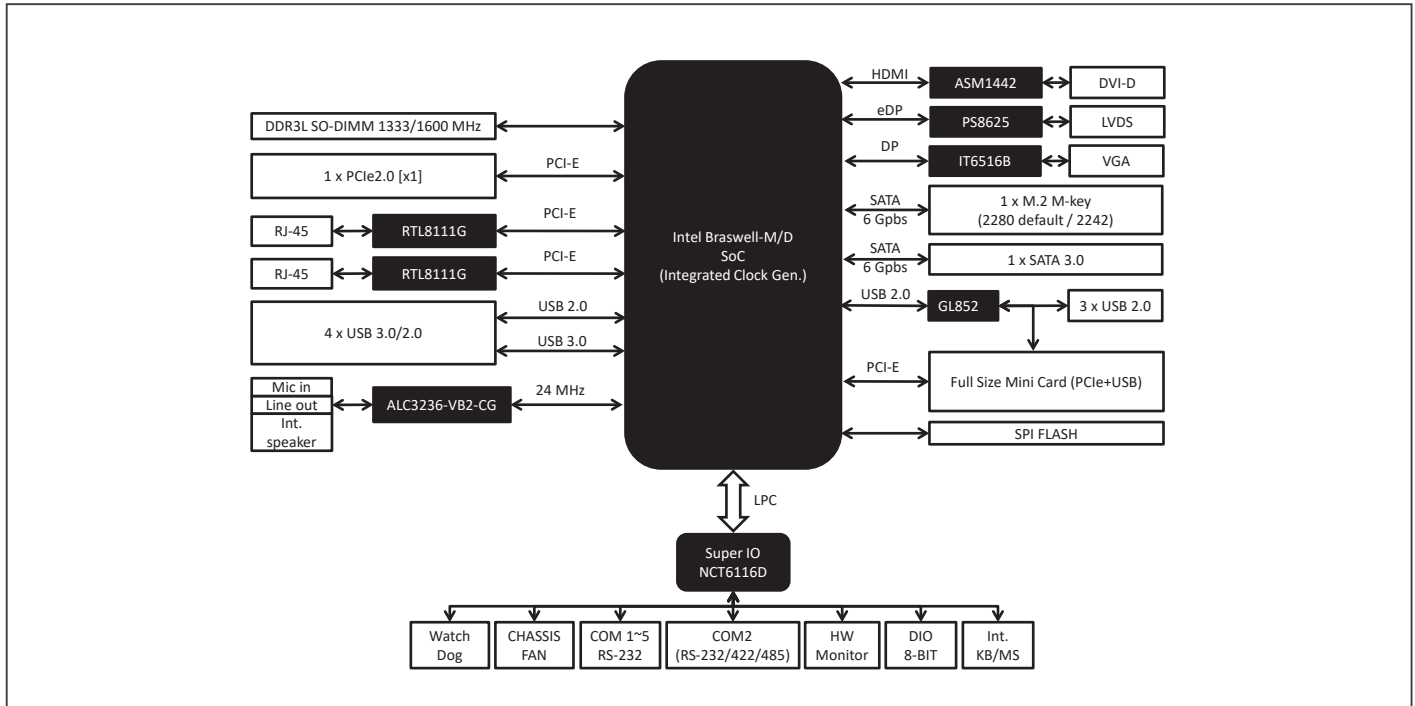
## Packing List

- 14001-00630100  
SATA 6G Cable (7P, 180; 90, 500mm 2 in 1)
- 14001-00230100  
SATA to Power Cable (4P, 120MM)
- I/O Shield
- Heatsink
- Product CD
- EMB-BSW2

## Optional Accessories

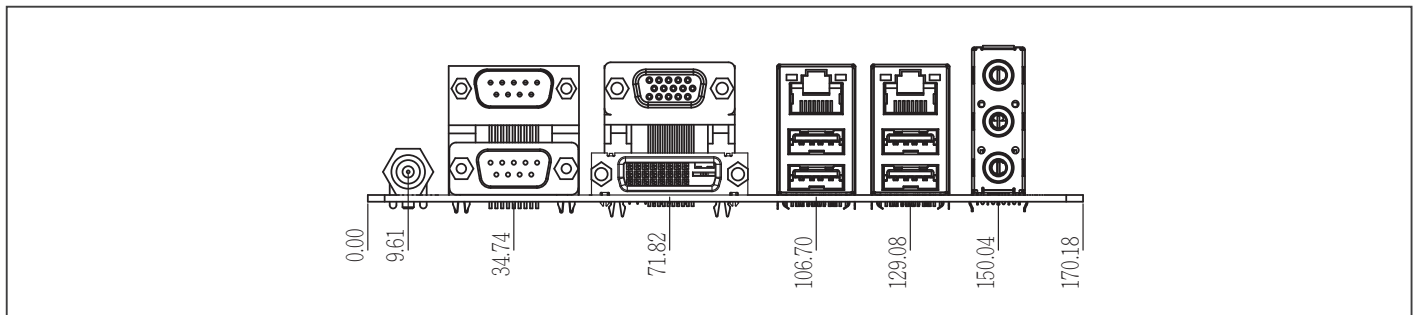
Part Number	Description
1709100201	USB 2.0 Cable (10P, 200MM, p=2.00mm, w/bracket)
1700100491	USB 2.0 Cable (2 x 5P, 490mm, p=2.00mm)
1709050201	USB 2.0 Cable (5P, 220mm, p=2.00mm)
170910020K	USB 2.0 Cable (9P, 200MM, p=2.54mm, w/o bracket)
1701100206	COM Cable (200MM, p=2.00mm)
1702150300	SATA Power Cable (4P, 300MM p=2.54mm)
1757908403	Lockable Adapter 84W
125530060A	Lockable Adapter 12V, 5A, 60W

## 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.
EMB-BSW2-A10-3060	N3060(DC)	SODIMM x 2	Fanless	VGA x 1, DVI-D x 1, LVDS x 1	SATA3 x 1, M.2(M-key) x 1	—	GbE x 2	USB 3.0 x 4, USB2.0 x 3	4	1	PCIe2.0[x1] x 1, Full Size mPCIe x 1	12V DC	—	32°F ~ 140°F (0°C ~ 60°C)