

Specifications

System	
Form Factor	3.5" SubCompact Board
CPU	Intel® Pentium® & Celeron® M/D Processor SoC
CPU Frequency	Up to 2.6 GHz
Chipset	Intel® Pentium® & Celeron® M/D Processor SoC
Memory Type	DDR3L 1600, SODIMM x 1
Max. Memory Capacity	Up to 8 GB
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+12V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	Intel® Celeron® N3160 (2M Cache, up to 2.24 GHz, DDR3L 1600MHz, 8GB, 0.65A@+12V)
Dimension (L x W)	5.75" x 4" (146mm x 101.7mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 81°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	81,000
Certification	CE/FCC
Display	
VGA/LCD Controller	Intel® Pentium® & Celeron® M/D SoC
Video Output	LVDS x 2 + VGA, LVDS + HDMI + VGA
Backlight inverter supply	Up to 24-bit dual-channel LVDS
I/O	
Ethernet	Realtek RTL-8111E, 10/100/1000Base-TX, RJ-45 x2
Audio	High Definition Audio Interface
USB Port	USB 3.2 Gen 1 x 2 USB2.0 x 3
Serial Port	RS-232/422/485 x 2, RS-232 x 4
Parallel Port	SPP/EPP/ECP x 1 (Option, Shared with DIO)
HDD Interface	SATA 3.0 x 1
FDD Interface	—
SSD	mSATA x 1 (Half-size)
Expansion Slot	Mini-Card x 1(Full-size)
DIO	8-bit
SIM	x 1
TPM	—
Touch	x 1 (USB interface)

Features

- Onboard Intel® Pentium®/Celeron® N3000 Series Processor SoC
- DDR3L 1600 SODIMM x 1, Up to 8 GB
- Gigabit Ethernet x 2
- VGA, LVDS1, LVDS2/HDMI (Co-design)
- 2CH HD Audio
- Mini-Card x 1 (Full-Size)
- mSATA x 1 (Shared with Mini-Card, Half-size)
- USB 3.2 Gen 1 x 2, USB2.0 x 3, COM x 6, Digital I/O 8-bit
- +12V DC, AT/ATX



Packing List

- GENE-BSW5 with Passive Heatsink

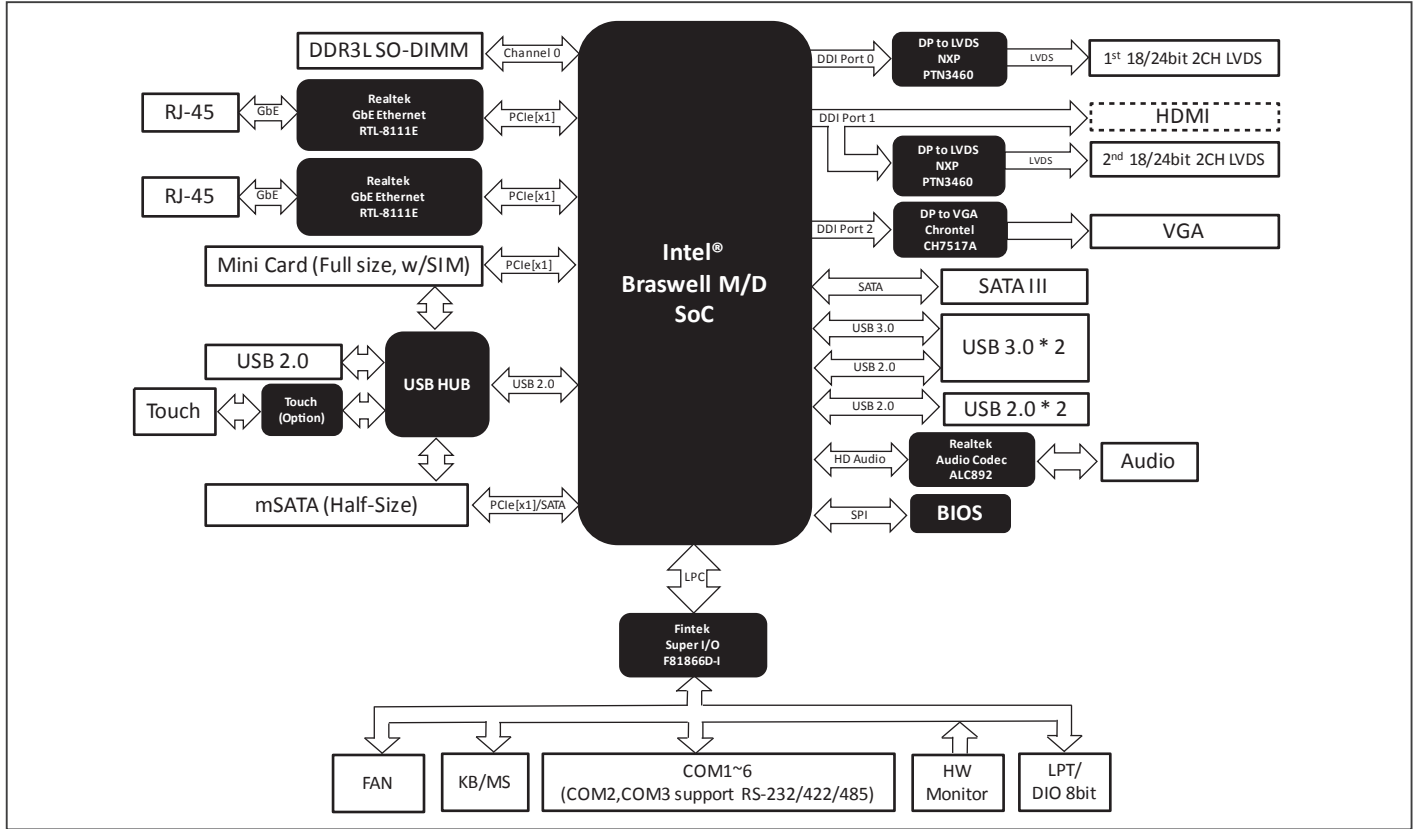
Optional Accessories

Part Number	Description	QTY
1702150155	(TF)Power Cable.15P SATA(F).2P 2.0mm Housing(PH).15cm	1
170220020B	(TF)Power Cable.20P ATX(M).4P 5.08mm Housing(F).+3P 2.5mm Housing (XH).20cm	1
1709070500	(TF)SATA CABLE.7P Pitch 1.27mm.50cm	1
170204010R	(TF)Power Cable.Double 4P 5.08mm Housing(M).10cm	1
1709100254	(TF)PHONE JACK Cable.3P AUDIO JACK.1"10P 1.25mm HOUSING(F).25cm	1
1701090150	(TF)Flat Cable.D-Sub 9(M).9P Housing.9P 1.25mm pitch Housing.15cm	5
1701260200	(TF)Flat Cable.25P D-SUB FEMALE.26P 2.00mm Pitch Housing.20cm	1
1703120130	(TF)LPC cable.12P.to 12P 1.0mm Housing.13cm	1
1700050207	(TF)USB CABLE.1*5P Pitch=1.25mm Housinh.20cm.for PFM-945C	3
1700060152	(TF)Cable.6P 2.0mm Housing.W/O NOSE.6P MDM-6S KB&MS.15cm	1
175011901M	(TF)BATTERY.3V.w/Wire 110mm.MITSUBISHI.Longtrump.CR2032-HAT00(MLF)	1

OS Support

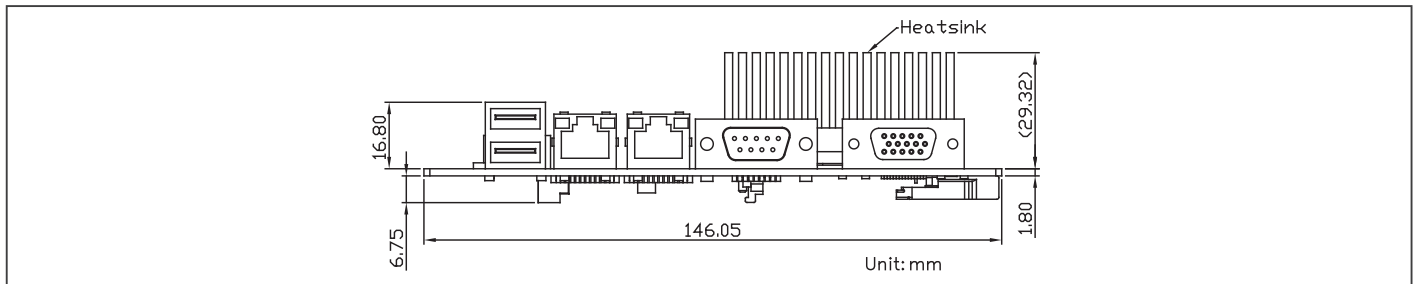
Part Number	Description
OS-W10E-600-01809-MUI	Windows® 10 IoT Ent LTSC 2019 MultiLang OEI Entry (ESD) , EPKEA,64bit
OS-W10E-300-01809-MUI	Windows® 10 IoT Ent LTSC 2019 MultiLang OEI Entry (ESD) , EPKEA,32bit

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	Fan/Fanless	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
GENE-BSW5-A11-0001	N3160	Fanless	VGA+LVDS	24bit,2CH	SATA x 1, mSATA x 1 (half size)	GbE x 2	USB 3.2 Gen 1 x 2 USB 2.0 x 3	2	2	miniCard x 1 (Full)	12V	0°C ~ 60°C	DIO x 8
GENE-BSW5-A11-0002	N3160	Fanless	VGA+LVDS x 2	24bit,2CH	SATA x 1 mSATA x 1 (half size)	GbE x 2	USB 3.2 Gen 1 x 2 USB 2.0 x 3	4	2	miniCard x 1 (Full)	12V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8