

Specifications

CPU	Intel® Atom™ QC x7/ E3950 (1.6~2.0 GHz) Intel® Pentium® QC N4200 (1.1~2.5 GHz) Intel® Celeron® DC N3350 (1.1~ 2.4 GHz)
PCH	Integrated in Intel® SoC
Memory Types	1x DDR3L SO-DIMM, Max 8GB (Non-ECC)
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	1x mSATA (Via full-size Mini PCI-E)
Mini Type Slots	2x Mini PCI-E (1x full-size, 1x half-size)
Graphics Controller	Intel® SoC integrated Gen9 18EUs graphics
Video Output	Supports HDMI(1.4b), Dual LVDS (18/24bit)
Ethernet	IB818F-150 2x Intel® I210IT PCI-E Gigabit LAN IB818F-420/335: 2x Intel® I211AT PCI-E Gigabit LAN
I/O Chip	Fintek F81964D-I
Serial Port	1x RS232/422/485 (jumperless selection) 3x RS232
USB 2.0	2x USB 2.0 via pin-header
USB 3.0/ 3.1	4x USB 3.0 on board
Serial ATA	2x SATA III
Audio	Intel® Atom™ SoC built-in HD audio controller + Realtek ALC283 Codec w/ class-D speaker amplifier
TPM	N/A
Others	Digital I/O, +12V~+24V DC-in, EuP/ErP
Dimensions (L x W)	102 x 147 mm (4" x 5.8")
Power Consumption	Intel® Atom™ E3950, 1.6GHz w/ 8GB DDR3L +12V: 1.09A Intel Pentium N4200, 1.1GHz w/ 8GB DDR3L +12V: 1.09A
Operating Temperature	E3950: -40°C ~ +85°C (-40°F ~ 185°F) N4200/N3350: 0°C ~ +60°C (32°F ~ 140°F)
Storage Temperature	-40°C ~ 90°C (-40°F ~ 194°F)
Relative Humidity	90% (non-condensing @60°C)

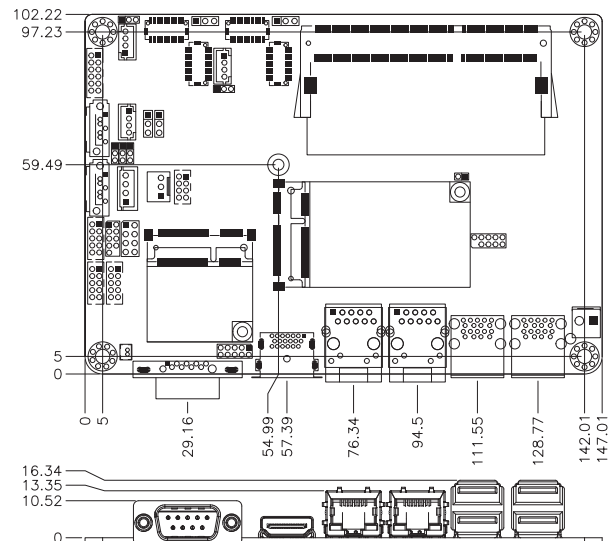
Features

- Onboard Intel® Atom™ x7-E3950, 2.0GHz [i-Temp support]
- Onboard Intel® Pentium® N4200, 2.5GHz or Celeron® N3350, 2.4GHz
- 1x DDR3L-1866 SO-DIMM, Max. 8GB
- Supports HDMI 1.4b, **Dual LVDS(18/24bit)**
- 2x Intel® I210IT PCI-E Gigabit LAN or I211AT PCI-E Gigabit LAN
- Watchdog timer, Digital I/O, mSATA, EuP/ErP
- 4x USB 3.0, 2x USB 2.0, 4x COM, 2x SATA III
- 1x Mini PCI-E slot (full-size), 1x Mini PCI-E slot (half-size)
- Wide-range operating temperature in certain models

Ordering Information

IB818F-150	Intel® Atom™ x7/ E3950 (1.6GHz~2.0 GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, 2x LVDS (18/24-bit LVDS dual-channel), EuP/ErP, 12V~24V DC-in, wide temp support
IB818F-420	Intel® Pentium® N4200 (1.1GHz~2.5GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, 2x LVDS (18/24-bit LVDS dual-channel), EuP/ErP, 12V~24V DC-in
IB818F-335	Intel® Celeron® N3350 (1.1GHz~2.4GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, 2x LVDS (18/24-bit LVDS dual-channel), EuP/ErP, 12V~24V DC-in
HSIB818-I	Heat sink for IB818F-150
HSIB818	Heat sink for IB818F-420/ IB818F-335
IB76A-1	Cable kit w/ USB, COM, Power, SATA+Power

Dimensions and Drawing



Processor Ultra Low Power Reference Table

Processor Number	Intel® Pentium® Processors - 14 nm Apollo-Lake SoC Platform	Intel® Celeron® Processors - 14 nm Apollo-Lake SoC Platform	Intel® Atom™ Processors - 14nm or Apollo-Lake-I SoC Platform		
	N4200	N3350	x7-E3950	x5-E3940	x5-E3930
Base Freq (GHz)	1.1	1.1	1.6	1.6	1.3
Intel® Turbo Boost Technology 2.0 (GHz)	2.5	2.4	2.0	1.8	1.8
Last Level Cache	2M	2M	2M	2M	2M
Cores/Threads	4/4	2/2	4/4	4/4	2/2
Memory Speed (DDR3L)	1866	1600	1866	1866	1866
TDP	6W	6W	12W	9W	6.5W

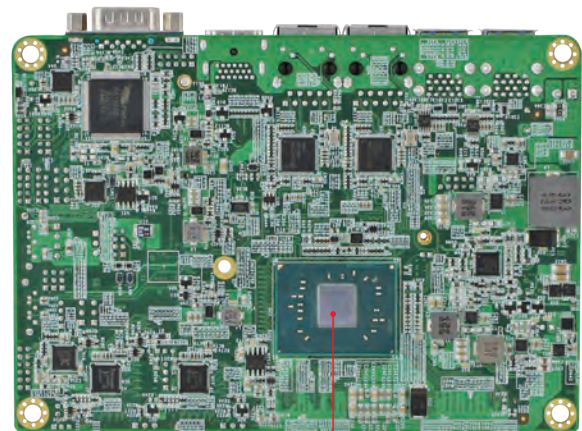
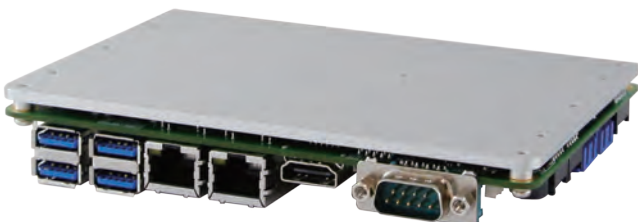
IB818 with heatsink for Pentium® & Celeron® SoC



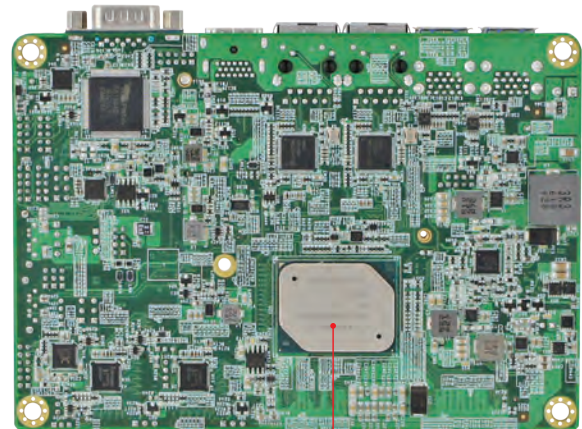
IB818 with heatsink for Atom™ SoC



IB818 with heat spreader



Intel® Pentium® QC N4200
Intel® Celeron® DC N3350



Intel® Atom™ QC x7/ E3950