

Specifications

CPU	Intel® Atom™ QC x7 /E3950 (1.6GHz~2.0GHz, 2MB cache) Intel® Atom™ QC x5 /E3940 (1.6GHz~1.8GHz, 2MB cache) Intel® Atom™ DC x5 / E3930 (1.3GHz~1.8GHz, 2MB cache) Intel® Pentium® QC N4200 (1.1GHz~2.5GHz, 2MB cache) Intel® Celeron® DC N3350 (1.1GHz~2.4GHz, 2MB cache)
PCH	Integrated in Intel® SoC
Memory Types	2x DDR3L SO-DIMM, Max 8GB (Non-ECC)
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	1x mSATA
Mini Type Slots	1x Mini PCI-E (full-size), 1x Mini PCI-E (full-size), 1x M.2 (B-key, type:3042/2242)
Graphics Controller	Intel® SoC integrated Gen9 18EUs graphics
Video Output	Supports HDMI(1.4b), DP(1.2), eDP/24-bit dual-channel LVDS
Ethernet	IB811F-I50/I40/I30: 2x Intel® I210IT PCI-E Gigabit LAN IB811F-420/335: 2x Intel® I21AT 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 ALC283QHD Codec w/ class-D speaker amplifier
TPM	TPM 2.0
Others	Digital I/O, +9V~ +36V DC-In, EuP/ErP
Dimensions (L x W)	102mm x 147mm (4" x 5.8")
Power Consumption	Intel® Atom™ E3900 1.3GHz w/ 2x DDR3L 1600 4GB +12V: 1.2A
Operating Temperature	E3950/E3940/E3930: -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)

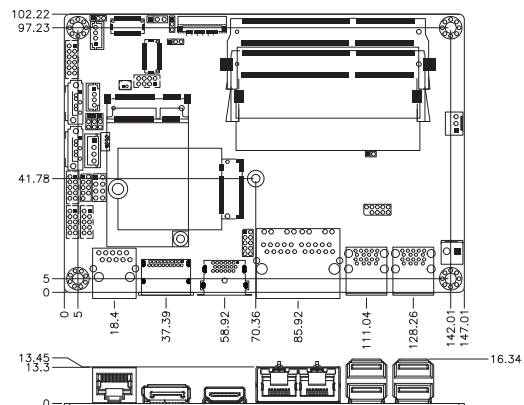
Features

- Onboard Intel® Atom™ x7-E3950, 2.0GHz or x5-E3940/x5-E3930 SoC, 1.8GHz [i-Temp support]
- Onboard Intel® Pentium® N4200, 2.5GHz or Celeron® N3350, 2.4GHz
- 2x DDR3L-1866/1600 SO-DIMM, Max. 8GB
- Supports HDMI(1.4b), DisplayPort and eDP/ 24 bit dual-channel LVDS
- 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 M.2 (B-key)
- Wide-range operating temperature in certain models

Ordering Information

IB811F-I50	Intel® Atom™ x7/ E3950 (1.6GHz~2.0GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, DisplayPort & eDP or LVDS (24-bit LVDS dual-channel), mSATA, M.2, EuP/ErP, 9V~36V DC-in, wide temp. support
IB811F-I40	Intel® Atom™ x5/ E3940 (1.6GHz~1.8GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, DisplayPort & eDP or LVDS (24-bit LVDS dual-channel), mSATA, M.2, EuP/ErP, 9V~36V DC-in, wide temp. support
IB811F-I30	Intel® Atom™ x5/ E3930 (1.3~1.8GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, DisplayPort & eDP or LVDS (24-bit LVDS dual-channel), mSATA, M.2, EuP/ErP, 9V~36V DC-in, wide temp. support
IB811F-420	Intel® Pentium® N4200 (1.1~2.5GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, DisplayPort & eDP or LVDS (24-bit LVDS dual-channel), mSATA, M.2, EuP/ErP, 9V~36V DC-in
IB811F-335	Intel® Celeron® N3350 (1.1~2.4GHz) 3.5-inch Disk-Size SBC w/ dual GbE LAN, HDMI, DisplayPort & eDP or LVDS (24-bit LVDS dual-channel), mSATA, M.2, EuP/ErP, 9V~36V DC-in
HSIB811-B	Heatsink for IB811F-420/ 335
HSIB811-I	Heatsink for IB811F-I50/ I40/ I30
HSIB811-1	Heat spreader for IB811F-420/ 335
HSIB811-I-1	Heat spreader for IB811F-I50/ I40/ I30
IB76A-1	Cable kit w/ USB, COM, Power, SATA + Power

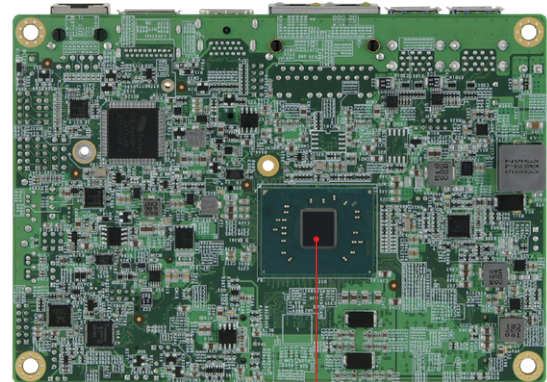
Dimensions and Drawing



Intel® Entry Processor Ultra Low Power Reference Table

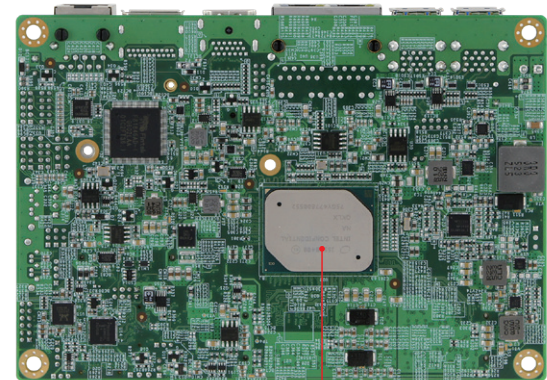
Processor Number	Intel® Pentium® Processors - 14 nm Apollo-Lake SoC Platform	Intel® Celeron® Processors - 14 nm Apollo-Lake SoC Platform	Intel® Atom™ Processors - 14nm or Apollo-Lake-I SoC Platform		
	N4200	N3350	x7-E3950	x5-E3940	x5-E3930
Base Freq (GHz)	1.1	1.1	1.6	1.6	1.3
Intel® Turbo Boost Technology 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

IB811 with heatsink for Pentium® & Celeron® SoC



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

IB811 with heatsink for Atom™ SoC



Intel® Atom™ QC x7 / E3950
Intel® Atom™ DC x5 / E3930