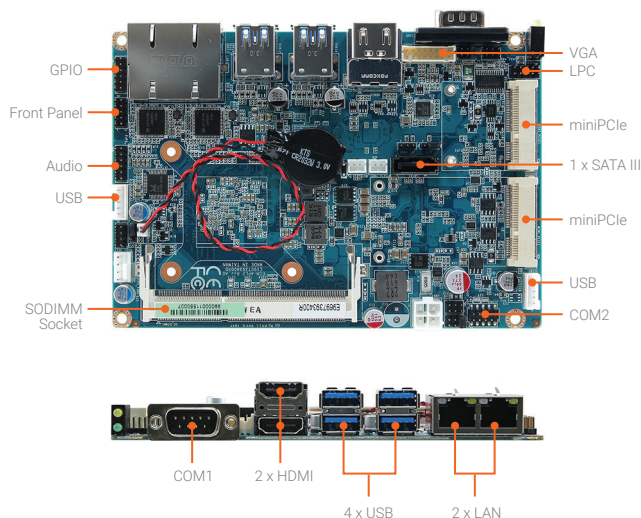


Features

- Bottom Layer Soldered
- Intel® Pentium®/Celeron®/Atom™ BGA Processor
- Intel® HD Graphics 500/505
- Single DRAM Socket, Max. Up to 8GB DDR3 1866MHz
- Triple Display (Dual HDMI, VGA)
- Dual Expansion Slot, 2-mPCIe
- Dual Gigabit Ethernet, HD Audio Code
- 0~60C for N & J Series, -40~85C for E Series
- TPM 2.0



Specifications

System	
CPU	Intel Atom® x7-E3950 (2M Cache, up to 2.00 GHz) Intel Atom® x5-E3940 (2M Cache, up to 1.80 GHz) Intel Atom® x5-E3930 (2M Cache, up to 1.80 GHz) Intel® Pentium® N4200 (2M Cache, up to 2.50 GHz) Intel® Celeron® N3350 (2M Cache, up to 2.40 GHz) Intel® Celeron® J3455E (2M Cache, up to 2.30 GHz)
System Memory	1 x 204-Pin SO-DIMM Socket, Max. Up to 8GB DDR3 1866MT/s
BIOS	AMI uEFI BIOS, 128Mbit SPI Flash ROM
I/O Chip	EC IT8528E/ IT8528I
BIOS	AMI uEFI BIOS, 128Mbit SPI Flash ROM
Audio	Realtek ALC892, supports 5.1-CH
Ethernet	2 x Intel® I211AT/ I210IT
Expansion	1 x Full Size mPCIe 1 x Half Size mPCIe
Storage	1 x mSATA (Shared mPCIe)
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec. and 1sec./step
H/W Status Monitor	Monitoring System Temperature, Voltage and FAN Status with Auto Throttling Control
OS Support	Win 10, Linux
External I/O	
HDMI	2 x HDMI
LAN	2 x RJ-45
USB	4 x USB 3.0
COM	1 x RS-232/422/485
Internal I/O	
USB	2 x USB 2.0
DIO	1 x 8-bit GPIO
COM	1 x RS-232/422/485
SATA	1 x SATA III
MIO	1 x LPC, 1 x SPI

Display	
Chipset	Intel® HD Graphics 500 (E3930, E3940, J3455, N3350) Intel® HD Graphics 505 (E3950, N4200)
Resolution	2 x HDMI 1.4: Max. Resolution 3840x2160 @ 30Hz 1 x VGA: Max. Resolution 1920x1200 @ 60Hz
Multiple Display	Supports Triple Display
Mechanical & Environment	
Requirement	Typical 12/24Vdc (+12V ~ +26V)
Power Type	AT/ATX
Operating Temp	0°C ~ 60°C (32°F ~ 140°F), with 0.2m/s air flow (J3455, N4200, N3350) -40°C ~ 70°C (-40°F ~ 158°F), with 0.2m/s air flow (E3950, E3940, E3930) -40°C ~ 85°C (-40°F ~ 185°F), with 0.5m/s air flow (E3950, E3940, E3930) *With Extended Temperature Peripherals
Storage Temp	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Form Factor	3.5" Single Board Computer (SBC)
Dimensions	5.7" x 4" (146mm x 101mm)
Weight	0.44 lbs (0.2kg)
Certification Information	CE FCC Class B
Vibration Protection	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis
Shock Protection	With SDD : 50G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
Drop	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces

Ordering Info	

* All product specifications and images are subject to change without notice. Last update: 2020/04/30

