

Features

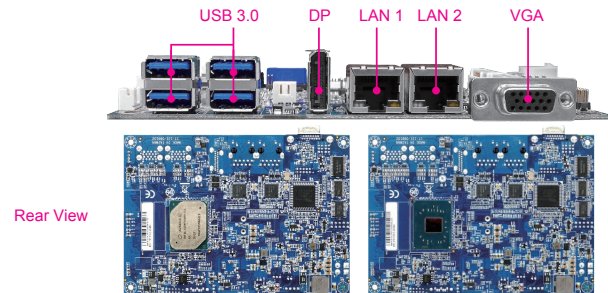
- Intel® E3900 series / N3350 / N4200 SoC
- Wide temperature (-40 to 85°C) for E3900 series
- 1 x I²C, 2 x LAN, 4 x COM, 6 x USB, fTPM
- Programmable 8bit GPIO
- Supports 3 displays: LVDS + VGA + DP (up to 4K)
- 1 x full-sized mSATA (with USB signal)
- 1 x full-sized mPCIe

Specifications

System

CPU Support	Intel® Celeron® N3350: 6w, 2C, 2.4GHz Intel® Pentium® N4200: 6w, 4C, 2.5GHz Intel® Atom™ x5 E3930: 6.5w, 2C, 1.8GHz Intel® Atom™ x5 E3940: 9.5w, 4C, 1.8GHz Intel® Atom™ x7 E3950: 12w, 4C, 2.0GHz
Chipset	Intel® SoC
DRAM	1 x SO-DIMM socket, supporting 1600/1867 DDR3L memory up to 8G (non-ECC)
BIOS	AMI UEFI BIOS
API/SW/FW	API/SW: Watchdog / GPIO / backlight control / fan control / I²C / HW monitor FW: fTPM, selectable by BIOS
Power Supply	DC-in 12V only (onboard 4pin conn)
Power Consumption	+12V; 0.8A (N3350 sku)
Dimension	102 x 145mm (4.02" x 5.71")
Certificate	FCC / CE
OS Support	Windows 10 64bit / Ubuntu17.04 (kernel:4.4)

I/O Panel View



I/O Ports

SATA Interface	1 x SATA III port (6.0Gb/sec)
Serial Port	4 ports (internal pin header) COM1: RS232 COM2: RS232/422/485, selected by BIOS COM3: RS232 w/ RI/5v/12v, selected by jumper COM4: RS232 w/ RI/5v/12v, selected by jumper
LAN	Dual LAN (2 x RJ45 on rear IO) Supports Wake-on-LAN Controller: 2 x Intel® I210-IT/AT
Audio	Line-in / Line-out / MIC-in (onboard pin header) Codec IC: Realtek ALC888 (high definition codec)
GPIO	8 bit programmable GPIO (with API/utility support)
USB	6 ports: 2 x USB 2.0 (internal wafer) 4 x USB 3.0 (rear IO)
Expansion Bus	1 x full-sized mSATA slot (with SATA and USB signal) 1 x full-sized mPCIe slot (with PCIe and USB signal) 1 x I²C onboard conn w/5v power (with API/utility support)
FAN	1 x 4-pin conn for system fan (with API/utility support)

Graphics

Display port	1 x DP1.2a (rear IO), resolution: up to 4096x2160@60Hz
VGA	1 x VGA (rear IO), resolution: up to 1920x1200@60Hz
LVDS	1 x LVDS (onboard conn), up to dual channel, 24-bit, Resolution range: 800x600 to 1920x1200, set by slide switch

Environment

Operating Temp.	0~60°C@ humidity 20~95% (fanless heatsink) for Pentium®/ Celeron® SoC -40~85°C@ humidity 20~95% (fanless heatsink) for Atom™ x7/ x5 SoC
Storage Temp.	-40~85°C@ humidity 20~95%

Ordering Information

Order No	Description
IPC-B3P20981-M0P	HSF, 3.5" SBC w/ Celeron® N3350 SoC/ DP/ VGA/ Audio/ 4COM/ 2LAN/ fTPM, w/o heatsink
IPC-B3P20981-M1P	HSF, 3.5" SBC w/ Pentium® N4200 SoC/ DP/ VGA/ Audio/ 4COM/ 2LAN/ fTPM, w/o heatsink
IPC-B3P20981-E3P	HSF, 3.5" SBC w/ Atom™ x5 E3930 SoC/ DP/ VGA/ Audio/ 4COM/ 2LAN/ fTPM/ wide temp, w/o heatsink
IPC-B3P20981-E4P	HSF, 3.5" SBC w/ Atom™ x5 E3940 SoC/ DP/ VGA/ Audio/ 4COM/ 2LAN/ fTPM/ wide temp, w/o heatsink
IPC-B3P0981-E5P	HSF, 3.5" SBC w/ Atom™ x7 E3950 SoC/ DP/ VGA/ Audio/ 4COM/ 2LAN/ fTPM/ wide temp, w/o heatsink