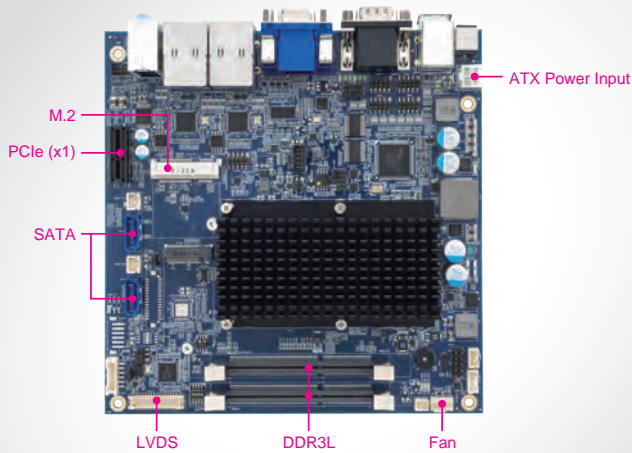


# BM-0982

Thin Mini-ITX Intel® Pentium® N4200 / Celeron® N3350 Embedded SoC



## Features



- Intel® Celeron® N3350 / Pentium® N4200 SoC
- 1 x I<sup>2</sup>C with API support
- 6 x COM, 6 x USB, 8bit DIO
- Supports 3 displays:  
LVDS + VGA + DP/HDMI (Combo, up to 4K)
- 1 x half-sized mPCIe
- 1 x M.2 slot (support 2242 device)

## Specifications

### System

CPU Support	Intel® Pentium® N4200: 6w, 4C, 1.1/2.5GHz Intel® Celeron® N3350: 6w, 2C, 1.1/2.4GHz
Chipset	ApolloLake SoC
Memory Support	2 x SO-DIMM socket, supporting 1600/1866MHz DDR3L up to 8G (non-ECC)
BIOS	AMI BIOS
API/SW/FW	API/SW: Watchdog / DIO / Backlight Control / I <sup>2</sup> C / HW monitor
Power Supply	DC In 12V~24V Connector: 1 x DC jack on rear I/O 1 x internal 4 pin (2 x 2)
Power Consumption	TBD
Dimensions	170 x 170 mm (6.69" x 6.69")
Certifications	CE / FCC
O.S. Support	Windows 10 64bit

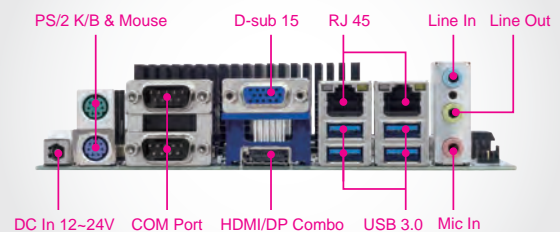
### Graphics

VGA	1 x VGA (rear I/O), resolution: up to 1920 x 1200 @60Hz
DisplayPort	1 x DP/HDMI combo (rear I/O) - DisplayPort 1.2: resolution up to 4096 x 2160 @60Hz - HDMI 1.4b: resolution up to 3840 x 2160 @30Hz (Note: DP and HDMI only one work at the same time.)
LVDS	1 x LVDS (internal connector), up to dual channel, 48bit, resolution up to 1920 x 1200, w/ LCD 3.3V/5V/12V signal Option: 2nd LVDS, dual channel 48bit up to 1920 x 1200 (Internal connector) for customized BOM, must remove VGA connector and have another I/O shield

### Environment

Operating Temp.	0°C~60°C (32°F~140°F)
Storage Temp.	-40°C~85°C (-40°F~185°F)
Humidity	Operation humidity 20%~90%, storage humidity 20%~95%

## I/O Panel View



## I/O Ports

SATA Interface	2 x SATA III (6.0Gb/s) 1 x M.2 slot (support 2242 device)
Expansion Bus	1 x PCIe (x1) 1 x half-sized mPCIe (PCIe signal only)
Serial Ports	6 x ports COM 1/2: RS-232/422/485 & support RI/5V/12V selectable under BIOS (rear I/O) COM 3~6: RS-232 (pin header)
Keyboard/Mouse	2 x ports (rear I/O)
FAN	1 x 4 pin connector for CPU fan (compatible 3 pin system fan)
LAN	Dual LAN (2 x RJ45 on rear I/O) Supports Wake-On-LAN Controller: 2 x Intel® I210 (GbE)
Audio	Codec IC: Realtek ALC888 (high definition codec) 1 x Mic In / 1 x Line In / 1 x Line Out (rear I/O) Option: 1 x Mic In / 1 x Lin Out (rear I/O, replace triple audio jack) 1 x Mic In / 1 x Line Out (pin header)
Digital I/O	4 in / 4 out (internal wafer)
USB	6 ports 2 x USB 2.0 (internal wafer) 4 x USB 3.0 (rear I/O)

\* All information contained in this document is subject to change without prior notice. Please log on [www.protech.com.tw](http://www.protech.com.tw) to acquire latest information. For detail mechanics drawing, please contact our sales.