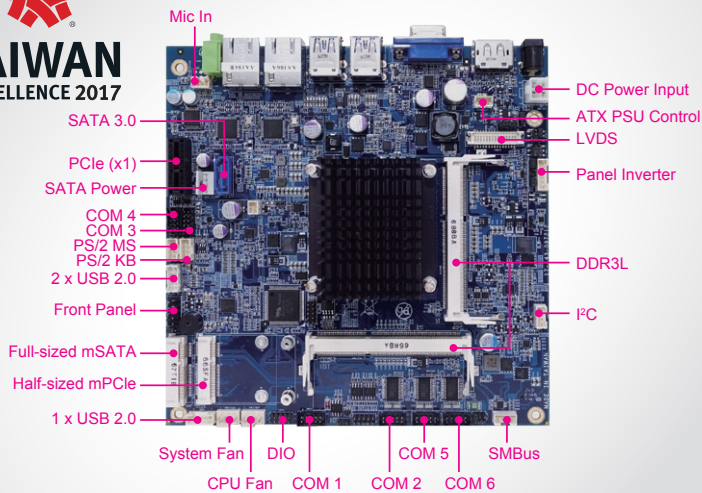


# BM-0972

Thin Mini-ITX Intel® Pentium® N3710 / Celeron® N3060 Embedded SoC



**TAIWAN**  
EXCELLENCE 2017



## Features



- Intel® Celeron® N3060 / Pentium® N3710 SoC
- 1 x I<sup>2</sup>C, 1 x SMBus with API support
- 6 x COM, 7 x USB, 8bit DIO
- Supports 3 displays: LVDS + VGA + DP (up to 4K )
- 1 x half-sized mPCIe (with SIM socket)
- 1 x full-sized mSATA

## Specifications

### System

CPU Support	Intel® Pentium® N3710: 6w, 4C, 1.6/2.5GHz Intel® Celeron® N3060: 6w, 2C, 1.6/2.16GHz
Chipset	Braswell SoC
Memory Support	2 x SO-DIMM socket, supporting 1600/1333MHz DDR3L up to 8G (non-ECC) (N3060 SKU supports only 1 x SO-DIMM)
BIOS	AMI BIOS
API/SW/FW	API/SW: Watchdog / DIO / Backlight Control / I <sup>2</sup> C / HW monitor
Power Supply	DC In 12V only Connector: 1 x DC jack on rear I/O, 1 x internal 4 pin (2 x 2)
Power Consumption	+12V: 1.59A (CPU: N3700)
Dimensions	170 x 170 mm (6.69" x 6.69")
Certifications	CE / FCC
O.S. Support	Windows 10 64bit / Windows 8.1 64bit Windows 7 64bit / Ubuntu14.04

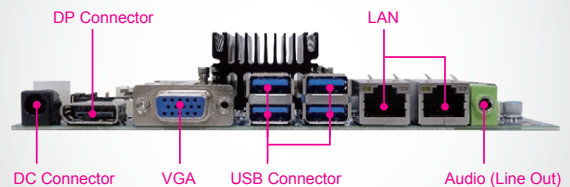
### Graphics

VGA	1 x VGA (rear I/O), resolution: up to 1920 x 1200 @60Hz
DisplayPort	1 x DP (rear I/O), resolution: up to 2560 x 1600 @60Hz
LVDS	1 x LVDS (internal connector), up to dual channel, 24 bit, Resolution range: 800 x 600~1920 x 1200, set by jumper (N3060 SKU supports only 1 x DP, 1 x LVDS)

### Environment

Operating Temp.	0°C~60°C (32°F~140°F) w/ 31 mm height heatsink for N3710 0°C~60°C (32°F~140°F) w/ 18 mm height heatsink for N3060 0°C~50°C (32°F~122°F) w/ 18 mm height heatsink for N3710
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	1 x SATA III (6.0Gb/s), 1 x full-sized mSATA
Expansion Bus	1 x PCIe (x1) 1 x half-sized mPCIe (N3060 SKU doesn't support USB signal card)
Serial Ports	6 x ports (pin header) COM 1/3/4/5/6: RS-232 COM 2: RS-232/422/485, selected by jumper (N3060 SKU supports only 2 COM: COM 1 and COM 2)
Keyboard/Mouse	2 PS/2 (Internal wafer)
FAN	1 x 4 pin connector for CPU fan 1 x 4 pin connector for system fan
LAN	Dual LAN (2 x RJ45 on rear I/O) Supports Wake-On-LAN Controller: 2 x Intel® I210 (GbE)
Audio	Line Out (rear I/O)
Digital I/O	4 in / 4 out (internal wafer)
USB	7 ports: 3 x USB 2.0 (internal wafer) 4 x USB 3.0 (rear I/O) (N3060 supports only 4 x USB 3.0 on rear I/O)
SIM Holder	1 SIM holder (N3060 SKU doesn't support)

\* 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.