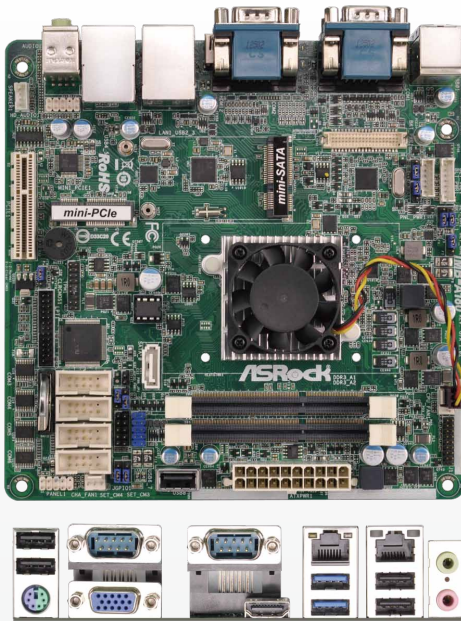


# IMB-A180

## Mini-ITX Motherboard



### Spotlight Features

- AMD Embedded G-Series SOC processor(s)
- Supports DDR31600MHz (GX-420CA/GX-415GA), DDR3 1333MHz (GX-210HA)
- 1 x VGA, 1 x HDMI
- 24 bit dual channel LVDS
- 6 x COM ports, 6 x USB 2.0, 2 x USB 3.0
- 1 x PCIe4, 1x SATA 3.0, 1 x mSATA
- Dual Gbe LAN: 1 x Realtek RTL8111E, 1 x Realtek RTL8111DP to support Dash Function
- 1 x TPM header

### Specifications

Processor System	
Dimension	Mini-ITX (6.7-in x 6.7-in)
CPU	AMD- Embedded G-Series SOC processor(s) GX-420CA: 25W 4Core (2.0G Hz) GX-415GA: 15W 4Core (1.5G Hz) GX-210HA: 9W 2Core (1.0G Hz)
Core Number	by SOC
Max Speed	by SOC
L3 Cache	by SOC
Chipset	SOC
BIOS	UEFI
Expansion Slot	
PCI	NA
Mini-PCIe	1 ( half size)
mSATA	1
PCIe	1 (x4) Gen2
CFast Card Socket	no
Memory	
Technology	Single Channel Up to DDR3 1600 MHz (GX-420CA / GX-415GA) Single Channel Up to DDR3 1333MHz (GX-210HA)
Max.	16 GB
Socket	2 x So-DIMM
Graphics	
Controller	by SOC
VRAM	Shared Memory
VGA	1
LVDS	24-bit dual channel LVDS
HDMI	1
DVI	No
Display Port	No
Multi Display	YES (Dual display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Realtek RTL8111E, 1 x Realtek RTL8111DP to support Dash Function
Connector	2 x RJ-45
SATA	
Max Data Transfer Rate	SATA3 (6.0Gb/S)

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	6 (4 x USB 2.0 compliant, 2 x USB 3.0 compliant)
Audio	2 (Mic-in, Line-out)
Serial	2 (RS232/422/485)
PS/2	1 (Combo)

Internal Connector	
USB	2 x USB2.0 port (by Header), 1 x USB Type A Con
LVDS/Inverter	YES (option)
VGA	0
Serial	4 x RS232 and 4x (1x3) Header to offer PWR select for 2 rear and 2 internal
SATA	1 x SATA3, 1 x m-SATA
m-SATA	1
Mini-PCIe	1 (half size)
Parallel	1
IrDA	0
GPIO	4 x GPI + 4 x GPO
SATA PWR Output Con	0
Speaker Header	1

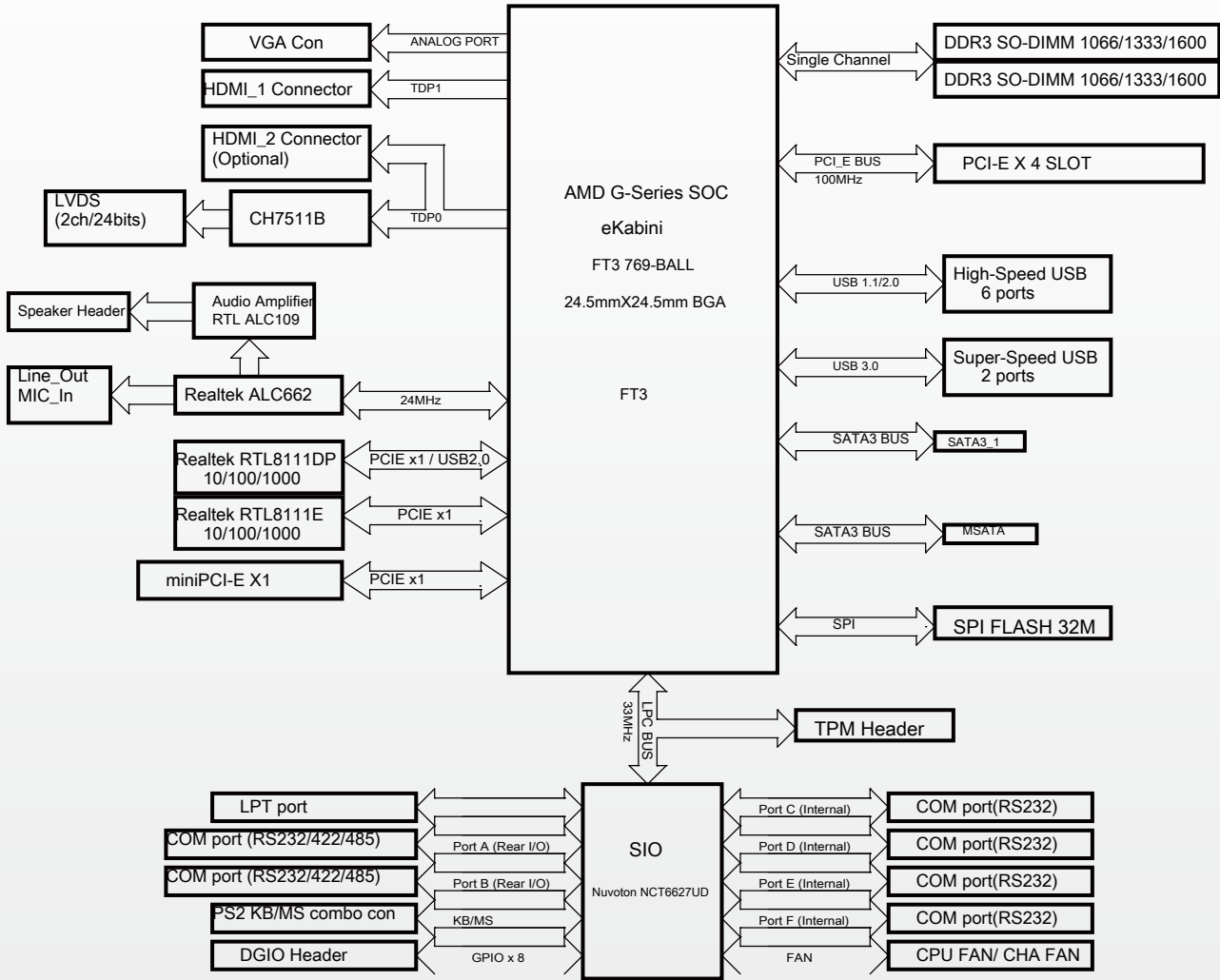
Watchdog Timer	
Output	Output from super I/O to drag RESETCON#
Interval	256 Segments, 0,1,2...255 Sec/Min

Power Requirements	
Input PWR	20-pin ATX PWR con
Power On	AT/ATX Supported AT : Directly PWR on as power input ready ATX : Press button to PWR on after power input ready

Environment	
Operating Temperature	0°C – 60°C

## Board Diagram

### IBM-A180



## IPC Motherboards Focused Markets

ASRock IMB solutions can be widely used for industrial applications, such as process control, data acquisition, and so on. IMB-PCs are typically panel mounted and often incorporate touch screens for user interaction.

