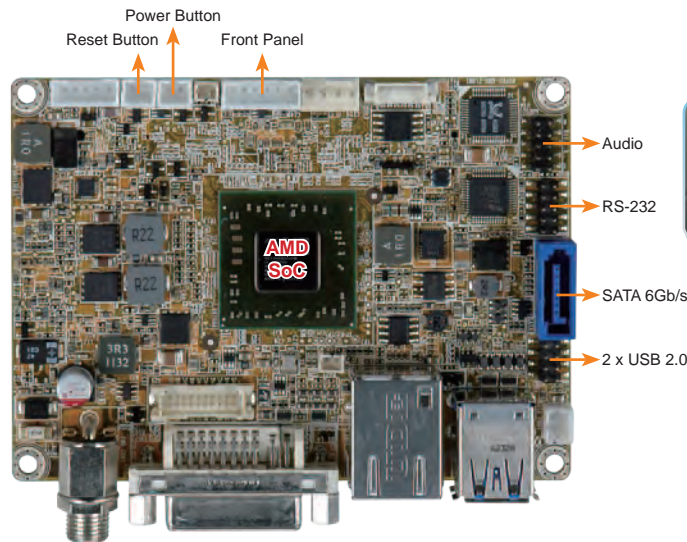


# HYPER-KBN

Pico-ITX SBC Supports AMD® Embedded G-Series SoC with DDR3, DVI-I/LVDS, GbE, USB 3.0, SATA 6Gb/s, Audio and RoHS

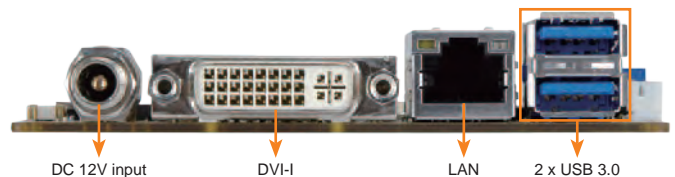


## Specifications

- ◆ SoC
  - AMD® Embedded G-Series SoC
  - GX-415GA on-board SoC (1.5GHz, quad-core, 2MB cache, TDP=15W with fan solution)
  - GX-210HA on-board SoC (1.0GHz, dual-core, 1MB cache, TDP=9W with fanless solution)
  - GX-420CA on-board SoC (2.0GHz, quad-core, 2MB cache, TDP=25W with fan solution) (by request)
  - GX-217GA on-board SoC (1.65GHz, dual-core, 1MB cache, TDP=15W with fanless solution) (by request)
- ◆ BIOS
  - AMI UEFI BIOS
- ◆ Memory
  - One 204-pin 1600/1333MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs support up to 8GB
- ◆ Graphics Engine
  - GPU frequency 500MHz (Radeon™ HD 8330E) for GX-415GA
  - GPU frequency 300MHz (Radeon™ HD 8310E) for GX-210HA
  - GPU frequency 600MHz (Radeon™ HD 8400E) for GX-420CA
  - GPU frequency 450MHz (Radeon™ HD 8280E) for GX-217GA
  - Support DX11.1, OpenGL 4.1 and OpenCL 1.2
  - UVD4.2 decode for H.264, MPEG2/4, VC1, MVC
  - VCE 2.0 encode for H.264, VCE
- ◆ Display Output
  - DVI-I (DVI-D up to 1920x1200@60Hz, VGA up to 2048x1536@60Hz)
  - 18-bit single-channel LVDS (up to 1600x900@60Hz)
- ◆ Ethernet
  - LAN: Realtek RTL8111E controllers with ASF2.0 supported
- ◆ I/O Interfaces
  - 1 x RS-232
  - 1 x SATA 6Gb/s with 5V SATA power connector
  - 2 x USB 3.0 (on rear I/O)
  - 2 x USB 2.0 (by pin header)
- ◆ Audio
  - Realtek AL662 HD Audio codec
  - 1 x Analog audio by 10-pin (2x5) header
- ◆ Front Panel
  - 1 x 6-pin (1x6) wafer for power LED & HDD LED
  - 1 x 2-pin (1x2) wafer for power button
  - 1 x 2-pin (1x2) wafer for power reset button
- ◆ LAN LED
  - 2 x 2-pin headers for LAN1 Link LED, LAN2 Link LED
- ◆ Fan Connector
  - 1 x 4-pin system fan connector
- ◆ Watchdog Timer
  - Software programmable, support 1~255 sec. system reset
- ◆ Power Supply
  - 12V only DC input
  - 1 x External DC power jack (ø5.5 mm)
  - Support AT/ATX mode
- ◆ Power Consumption
  - +12V@ 1.45A (AMD GX-415GA 1.5GHz CPU with 1333MHz 2GB DDR3 memory)
- ◆ Operating Temperature
  - 0°C ~ 60°C
- ◆ Storage Temperature
  - 10°C ~ 70°C
- ◆ Operating Humidity
  - 5% ~ 95%, non-condensing
- ◆ Dimensions (LxW)
  - 100mm x 72mm
- ◆ Weight
  - GW:600g/ NW:250g

Flexible Application  
Small size form factor: Pico-ITX

**New**



## Features

1. Pico-ITX form factor with AMD® Embedded G-Series SoC supports DDR3/DDR3L up to 1600MHz memory
2. 12V only single voltage design for AT/ATX power by DC power jack
3. DVI-I and 18-bit single-channel LVDS support for dual display
4. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Packing List

1 x HYPER-KBN single board computer
1 x SATA with 5V output cable kit (P/N: 32801-000201-300-RS)
1 x Audio cable (P/N: 32000-072100-RS)
1 x RS-232 cable (P/N: 32200-000049-RS)
1 x Specific heatsink
1 x One Key Recovery CD
1 x QIG
1 x Utility CD

## Ordering Information

Part No.	Description
HYPER-KBN-4151-R10	Pico-ITX SBC with AMD 28nm quad-core GX-415GA 1.5GHz (15W) SoC processor, DDR3 DVI-I/LVDS, GbE, SATA 6Gb/s, USB 3.0, HD Audio and RoHS
HYPER-KBN-2101-R10	Pico-ITX SBC with AMD 28nm dual-core GX-210HA 1.0GHz (9W) SoC processor, DDR3 DVI-I/LVDS, GbE, SATA 6Gb/s, USB 3.0, HD Audio and RoHS
32000-070301-RS	Dual-port USB cable

1  
Industrial  
Computing  
Solutions

2  
Video  
Capture  
Solutions

3  
Embedded  
Computing  
Solutions

4  
Automation  
Control

5  
ORing  
Network  
Communication

6  
Power Supply/  
Peripherals

7  
Panel  
Solutions  
Introduction