

# XE1

High-performance single board computer featuring Dual-Core AMD G-Series processor for Windows applications.

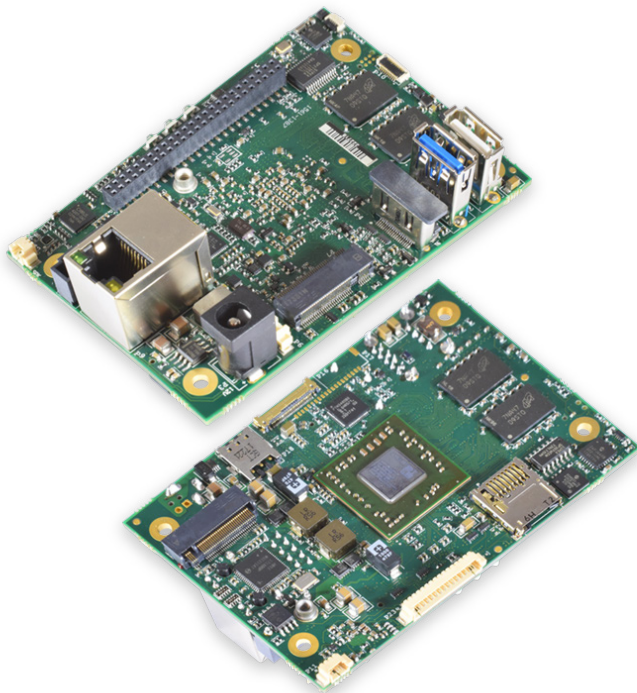
## PROCESSOR



## OPERATING SYSTEM



## I/O



### › x86 / x64

Run all of your existing Windows-based applications with minimal effort in migration.

### › Passively Cooled

At 4.5W TDP, the AMD G-Series APU is ideal for power-conscious applications.

### › High Performance

Features a dual-core CPU and Radeon graphics supporting DirectX 11.2.

### › Long-Life Components

Carefully-chosen components mean the XE1 will be available for at least 10 years.

## SUMMARY

The XE1 single board computer offers high performance, low power and long life in a small form factor.

Capable of running Windows 10 IoT Enterprise and other desktop versions of Windows, the XE1 is the ideal choice for customers wanting to run their existing applications with little fuss.

- Dual-core 1GHz AMD Jaguar x64 / x86 APU
- Radeon graphics supporting DirectX 11.2
- 2GB and 4GB 64-bit DDR3 1333 memory options
- MicroSD, M.2 and SATA storage options
- WiFi, Bluetooth and 3G available via expansion
- USB 3.0 and USB 2.0 ports
- SMBUS and 12 GPIOs
- Three serial ports - RS232 and RS232/RS422/RS485
- LCD and HDMI display options
- Runs Windows 10, Linux and Android x86



# XE1

## TECHNICAL SPECIFICATIONS

### Core System

|                 |   |
|-----------------|---|
| Processor       | AMD Embedded G-Series LX<br>x2 'Jaguar' x64 / x86 cores, 1MB shared L2 cache<br>Dual-Core CPU<br>1GHz clock speed |
| Memory          | Low-power DDR3<br>DDR-1333 memory speed<br>64-bit memory bandwidth<br>2GB and 4GB options                         |
| Storage         | MicroSD socket<br>M.2 SSD<br>SATA   |
| Graphics        | AMD Radeon R1E graphics processor<br>DirectX 11.2<br>HDMI Display<br>LVDS Display<br>Dual independent displays    |
| Audio           | High Definition Audio Cirrus Logic CS4207 codec<br>Stereo Inputs and Outputs<br>3W Class-D amplifier              |
| Watchdog        | Yes   |
| Real Time Clock | Yes - battery backup option   |

### Display & Touch

|                      |  |
|----------------------|--|
| Touch Interface Type | Support for Resistive and Projected Capacitive touch screens |
|----------------------|--|

### Operating System

|            |  |
|------------|--|
| OS Support | Windows 10, Linux Ubuntu & Android x86 |
|------------|--|

### I/O

|                  |   |
|------------------|---|
| Ethernet         | 10/100/1000 LAN via Intel I211 Controller<br>Optional second LAN through M.2  |
| Wireless         | WiFi, Bluetooth, 3G and GPS<br>via USB or M.2 modules<br>SIM socket   |
| Serial           | x1 USB 3.0 connector<br>x1 USB 2.0 connector<br>x1 USB 2.0 via 50W expansion header<br>SMBUS up to 400KHz<br>x2 RS232 ports<br>x1 RS232 / RS422 / RS485 ports (factory selectable)<br><i>Note: The RS485 TX/RX switch timing may be subject to operation system latency</i> |
| GPIO             | 12 signals  |
| Camera Interface | USB   |
| Expansion/Other  | x2 M.2 sockets (2230 Key A, 2242 Key B)<br>50-way expansion connector   |

### Power

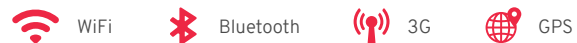
|                   |   |
|-------------------|---|
| Input Connector   | DC Jack or Screw Terminal   |
| Input Voltage     | Recommended operating voltage for reliable operation: 12V DC +/- 5%<br>Absolute maximum voltage: 17v DC   |
| Power Consumption | 0.414 amps @ 12 volts (5W) with Windows 10 in idle state (using M.2 SSD, no display, no peripherals, no ethernet)<br>Suspend and Resume not supported |

### Physical

|                       |             |
|-----------------------|-------------|
| Operating Temperature | 0°C to 60°C |
| Storage Temperature   | TBD         |
| Humidity              | TBD         |
| Overall Dimensions    | TBD         |
| Mounting Options      | TBD         |
| Approvals             | CE EMC      |

## OPTIONAL FEATURES

Add further functionality that you require through these optional extras:



Please note, these components may alter the technical specifications of the overall product (i.e. a change to the operating temperature).

## M.2 EXPLAINED

M.2 is a specification for compact, low-power and flexible expansion cards. The flexibility comes from the option to transmit a variety of signals (SATA, USB and PCIe) and the different form factors it comes in.

M.2 cards and sockets are labelled in a way to indicate both the functionality and the size of the card, for example '2230 Key A'. The number (2230) refers to the width and length of the card in millimeters. The 'Key' refers to the physical connector / socket and the signal transfer it supports.

The details of the two M.2 sockets provided on the XE1 are as follows:

| Location | Key | Supports          | Number | Measurements        |
|----------|-----|-------------------|--------|---------------------|
| Top      | B   | SATA and USB      | 2242   | 22mm (W) x 42mm (L) |
| Bottom   | A   | PCIe (x1) and USB | 2230   | 22mm (W) x 30mm (L) |

For more information, visit [bluechiptechnology.com](http://bluechiptechnology.com)



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