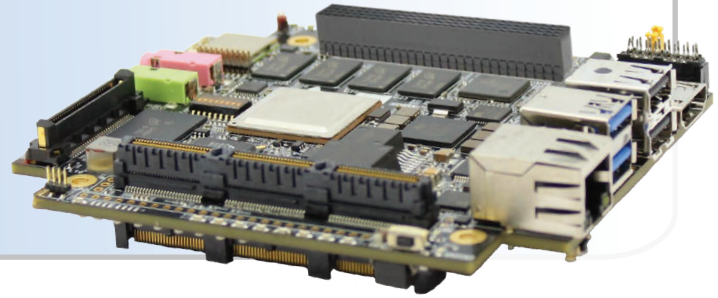


Single Board Computer

EPC-1010



Unleashing Potential

Step into the future with our high-performance single-board computer. It's engineered with a multi-core ARM+DSP SoC & 3D GPU, dual Gigabit LAN, Wi-Fi, and extensive storage. With 2 to 4 GB DDR3 RAM, it ensures efficient multitasking and quick data access.



Key Features

- Advanced Multi-Core SoC Processor
- Stackable PCI-104 and PCIe-104 Expansion
- High-Performance Video Processing
- Versatile Video Capture & Multi-Display Outputs
- Dual 1Gb LAN and Dual-Band Wi-Fi Connectivity
- Support for Diverse Operating Systems and Development Tools
- Extensive Serial Interface Options
- Multiple Large Storage Options



Innovation Meets Practicality

This SBC pushes computing boundaries, offering exceptional performance, reliability, and connectivity. The AM5728's high performance can be leveraged for machine learning algorithms, artificial intelligence applications and video and image processing tasks. It supports multiple video capture options and multi-display outputs. This combination of innovation and versatility sets a new standard in computing.



Built for Tough Environments

EPC-1010 is designed for harsh environments, boasting a wide range of operating conditions. It's stackable structure and customizable casings provide adaptability. It's designed based on PCIe-104 Express and Stack-PC standards for easy expansion in industry.

Processor :	TI AM5728 Dual Core 1.2GHz ARM Cortex-A15 + Dual Core 750MHz C66xx DSP
RAM :	2 to 4 Giga Byte DDR3
Display :	FullHD HDMI Output + VGA
Storage :	4 to 128 Giga Byte eMMC + 1 to 64 Giga Byte NAND + Up to 128 Giga Byte micro-SD + SATA Expansion
Network :	Dual 1Gb LAN, 1 RJ1+ 45 Through PCIe/104 Expansion
USB 3.0 :	2 Onboard USB3.0 Type A Connectors + 2 Ports Through PCIe/104 Expansion
USB 2.0 :	2 Onboard USB2.0 Type A Connectors + 2 Ports Through PCIe/104 Expansion
Video IN :	24bit Digital Interface Through External Capture Card, Support for Analog and Digital Video

ISA PC/104 Support:

Full ISA PC/104 Support via PCI to ISA Bridge Adapter Card

Wireless:

Dual Band Wi-Fi + Bluetooth

Audio:

3.5mm Line Out, 3.5mm MIC IN, Lineln Header

PCIe Expansions:

4 Gen2.0 PCIe x1 Stack Up

3 Gen2.0 PCIe x1 Stack Down

PCI Expansions:

Full PCI/104 Support

Monitoring:

Full Power Monitoring

OnBoard Temperature Sensor

Operating Temperature:

-40 to +85 Celsius

Mechanical Environment:

Confront to MIL-STD and ECSS for Shock and Vibration

Power Requirements:

8V to 40V DC

2W to 10W

Serial Interfaces:**10 Serial Ports:**

1 RS422 Isolated

1 RS232 Isolated

1 USB to UART Debug Port

7 TTL UART

2 CAN2.0 Ports, 1 Isolated

2 I2C

1 SPI

Expandable from 4 to 32 Serial Ports Through PCI/104

PCIe/104 Peripheral Cards

Casing:

Standard Stackable Structure, Custom Casing Available

Other Features:

OpenCL, OpenCV, OpenGL, OpenMP Support

Optimized Linear Algebra DSP and MATH Library

OnBoard Dual PowerVR SGX544 GPU

OnBoard FullHD Video Acceleration

Hardware and Software FullHD .h264 Encoder & Decoder

Quad Core Programmable Real-Time Unit

EtherCAT, PROFINET, PROFIBUS (On Request)

Compliant to Stack-PC and PCIe/104 Type-2 Standards

Operating Systems:

Linux

TI-RTOS

Android

Development Tools:

TI SDK (TI Arago Branch)

Code Composer Studio Yocto Project