

ARK-1350

GX1-300 with Four Serial Ports PC Card, LAN, 2 x USB, Ultra Compact, Fanless, Embedded Box Computer



CE FCC

Features

- Built-in GX1-300 MHz CPU with 128 MB SDRAM
- Four serial ports and dual USB ports
- One PC card slot supports PCMCIA and CardBus card
- Comprehensive communication and connectivity capacity
- Ultra compact size, robust construction with fanless operation
- Windows® CE. NET ready solution

Introduction

The ARK-1350 is an ultra compact, fanless fully sealed, robust embedded box computer, designed for space critical application that require low power consumption. All electronics are protected in a ruggedized, sealed housing. No external cooling is needed. Featuring one LAN, two USB, and four Serial communication ports; as well as PC Card interfaces, that brings comprehensive control and communication capability to fulfill diverse application requirements. Therefore, the ARK-1350 is an ideal solution for stand-alone and embedded gateway applications.

Comprehensive Communication and Control Capacity

Rich communication interface: Ethernet, four Serial Ports, dual USB and a PC card slot make the ARK-1350 an ideal solution for diverse applications:

- Data communication gateway for navigation and transportation
- POI/Kiosk control, self-service of entrance control, ticketing, payment and information preview system

Ultra Compact Size with Fanless Operation

- Small dimensions: 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- Fanless operation in an aluminum sealed construction
- Supports desktop/wall/Din-Rail mounting under space critical installation conditions

Optimized Integration in a Robust Casting Construction

- Few parts, zero cable, easy integration, easy maintenance, to reduce investment
- System is "Ready-to-Run" as supplied
- Accept wide range of DC power input of DC 9 V ~ DC 30 V

Specifications

Process Core Logic System

- **CPU** AMD® Geode® GX1-300 MHz processor
- **Chipset** AMD CS5530A
- **BIOS** AWARD® 256 KB Flash BIOS
- **System Memory** Built-in 128 MB SDRAM

Display

- **Chipset** AMD CS5530A
- **Display Memory** 1 ~ 4 MB video frame buffer share the system memory
- **Display Interface** CRT interface by a D-Sub 15-pin connector and a mini 6-pin VGA connector

Ethernet

- **Ethernet Controllers** Realtek® RTL8139C 10/100BaseT Ethernet controller
- **Ethernet Connectors** 1 x RJ45

PC Card

- **1 x PC Card Slot** Supports CardBus (Card-32) card and 16-bit (PCMCIA 2.1/JEIDA4.2) card
Supports +5 V, +3.3 V and +12 V @ 120 mA working power

Serial Port

- **Controllers** Oxford OX16 PCI954 UARTs with 128 bytes FIFOs
- **Four Serial Ports** 2 x RS-232/485 ports (COM1 and COM2)
2 x RS-232/422/485 ports (COM 3 and COM4)
All ports use the same IRQ assigned by BIOS

Other

- **Keyboard/Mouse** Supports PS/2 mouse and PS/2 keyboard
- **USB** 2 x USB ports, USB 1.0 compliant

Software Options

WindowsCE .NET 5.0 (bundled in ARK-1350-2G0A1)

Storage

Supports CompactFlash socket for type I/II CompactFlash disk

Front Panel External I/O

- 1 x PS/2 Connector: Supports PS/2 Keyboard and PS/2 Mouse
- 2 x USB ports as USB 1 and USB 2, Supports dual USB Connection
- 1 x PC Card (PCMCIA/CardBus) Slot
- 1 x D-Sub 9-pin Connector as VGA/CRT Connector
- 1 x Mini 6-pin Connector as VGA/CRT Connector
- 1 x Reset Button
- 1 x RS-232/422/485 Serial Ports as COM4



Mechanical

- **Construction** Aluminum housing
- **Mounting** Din-Rail mounting, Desk/wall-mounting
- **Dimensions (W x H x D)** 188.8 x 35.5 x 106.5 mm (7.5" x 1.4" x 4.2")
- **Weight** 0.8 KG

Power Supply

- **Input Voltage** 9 - 36 V DC, reversed wiring protection
- **Power Consumption** 0.6 A max under 24 V power input, or 1.2 A max under +12 V power input
- **Power Requirement** Typical 1 A @ +24 V power input
Typical 1.5 A @ +12 V power input

Environmental Specification

- **Operation Temperature** -10 ~ 55° C (14 ~ 131° F)
- **Related Humidity** 95 % @ 40° C
- **Vibration During Operation** 2 G, IEC 68-2-6, sine, 5 ~ 500 Hz, 10 ct./min, 1 hr/axis
- **Shock During Operation** When system is wall mounted: 50 G, IEC 68-2-27, half sine, 11 ms duration
When system is DIN-rail mounted: 20 G, IEC 68-2-27, half sine, 11 ms duration

Rear Panel External I/O

- 2 x RS-232/485 serial ports as COM1 and COM2
- 1 x RS-232/422/485 serial ports as COM3
- 1 x RJ45 Port: Supports 10/100Base-T Ethernet Connection
- 1 x Phoenix Type of Power Input Connector



Packing List

- 1 x ARK-1350 Unit
- 1 x DIN-Rail Mounting Kit
- 1 x PS2 Keyboard/Mouse Cable
- 1 x 6-pin to D-Sub 15-Pin 10cm VGA Cable
- 1 x Driver Utility CD

Ordering Information

- **ARK-1350-1G0A1** AMD GX1-300 MHz Embedded Box Computer with Card Bus slot, 1 x LAN, 2 x USB, 4 x COM and 128 MB SDRAM
- **ARK-1350-2G0A1** AMD GX1-300 MHz Embedded Box Computer with Card Bus slot, 1 x LAN, 2 x USB, 4 x COM, 128 MB SDRAM, and 128 MB Compact Flash Disk pre-installed with Windows CE.NET 5.0 Professional Plus

Dimensions

