iBPC-4081

Industrial fanless embedded Box PC with Intel Atom E3845 CPU and 1 I/O Bus

Features

- Powerful Hardware Design
  - Intel E3845, 1.91 GHz, 64-bit, Quad core
  - VGA and HDMI Display Ports
  - Microphone-In and Earphone-Out
  - Built-In Dual Watchdog Timers and Real-Time Clock
  - 64-bit Hardware Serial Number
- Various Memory & Storage Options
  - 128 KB MRAM and 16 KB EEPROM for Data Retention
  - 2.5" SATA Drive Bay, 16 GB CF Card and 4 GB DDR3 on-board
- Multiple Communication Interfaces
  - 2 x 10/100/1000BASE-T Ethernet Ports and 4 x USB 2.0 (host)
  - 4 x Serial Ports (1 x RS-232, 1 x RS-232/485, 2 x RS-232/422/485)
- Operating Systems (Win7/Win8/Win10/WES7/Linux)

Introduction

iBPC-4081 is a fanless embedded box PC, wide operating temperature and wide range voltage capability, allow it run in the harsh environments. iBPC series comes with the same interfaces: one RS-232 port, one RS-232/485 port, and two RS-232/422/485 ports, VGA, HMDI, Audio, dual Gigabit Ethernet LAN ports and four high-speed USB 2.0. And there are various CPU options: iBPC-4081 is with one Intel® ATOM Quad Core 1.91Ghz Processor E3845 (with 4GB on-board memory).

Two SMA type connector opening for antenna, optional I/O expansion board (XV-board), provides high protection I/O, +10 ~ 30 VDC power input connector, and one power switch. One 2.5" SATA HDD drive bay is also set up in the embedded computer to possess suffi cient storage.

Powerful Hardware Design

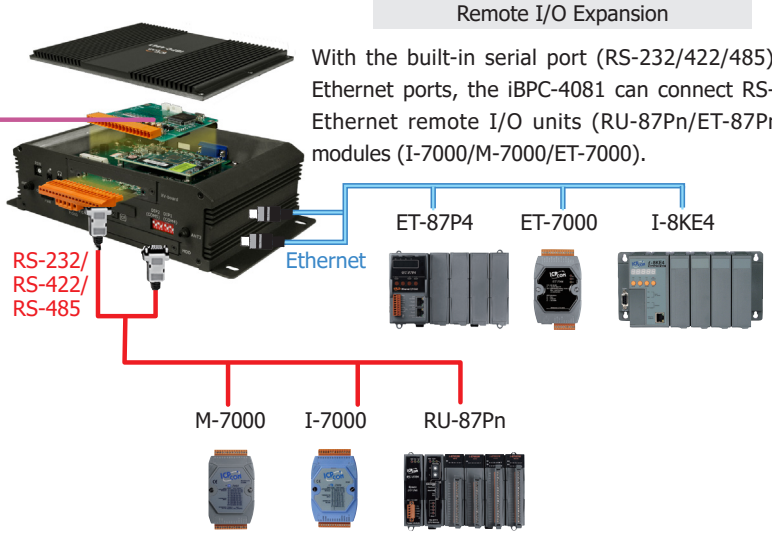
- Intel® Atom E3845 CPU (with 4 GB on-board memory)
- 2 × 10/100/1000M Ethernet and 4 × USB 2.0 port
- One 2.5” SATA drive bay and 1 CF socket
- Built-In Dual Watchdog Timers and Real-Time Clock
- Ultra-Rugged Construction and Reliable Design
- Supports VGA and HDMI dual display
- RS-232/422/485 port
- I/O Expansion Bus for XV-board
- One Mini PCI Express Card slot
- Operating Temperature: -25 ~ +70°C

I/O Expansion Modules

Local I/O Expansion

I/O Expansion Bus

The iBPC-4081 can support one an I/O expansion card, which allow you implement various I/O functions.



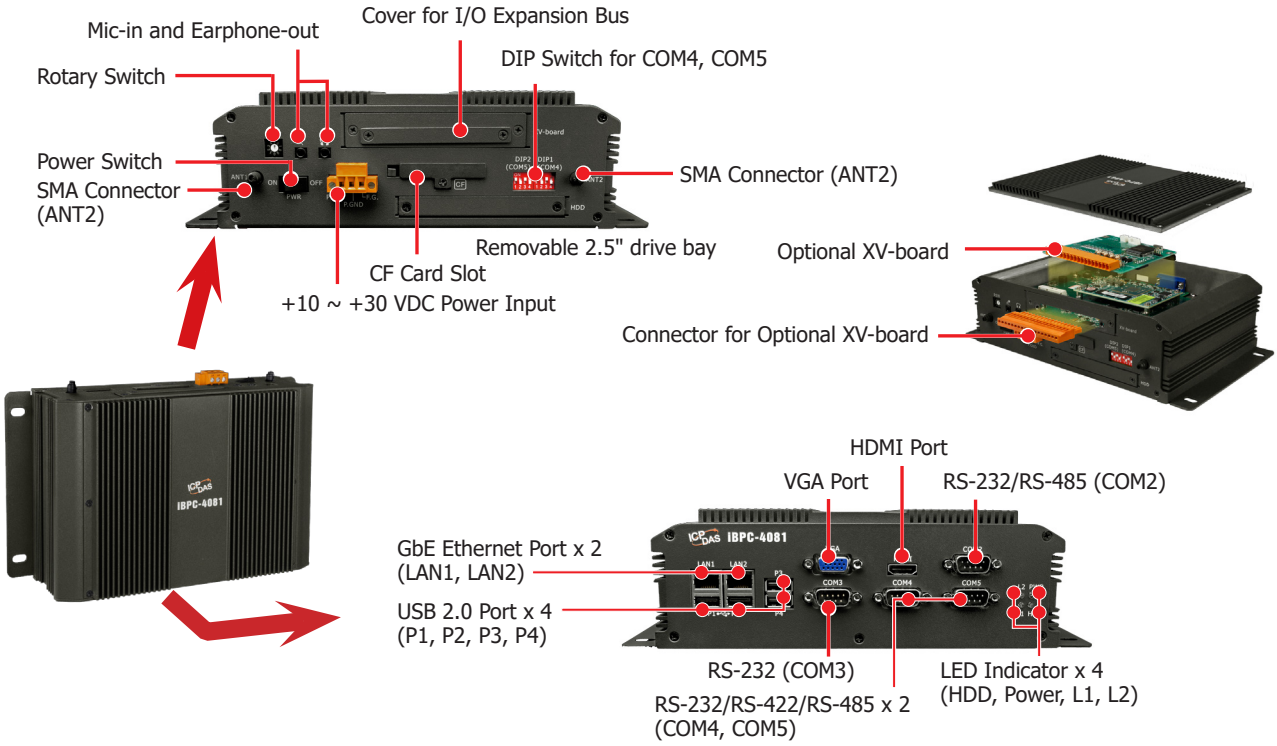
Remote I/O Expansion

With the built-in serial port (RS-232/422/485) and Ethernet ports, the iBPC-4081 can connect RS-485/ Ethernet remote I/O units (RU-87Pn/ET-87Pn) or modules (I-7000/M-7000/ET-7000).

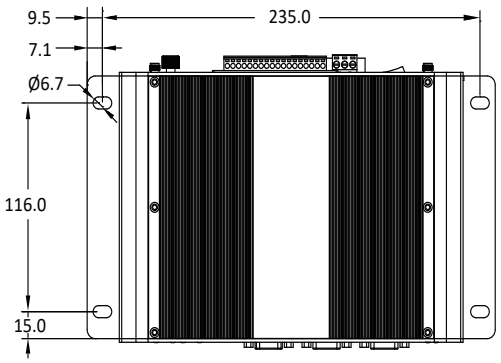
Specifications

Model	iBPC-4081
Software	
OS Support	Win7/Win8/Win10/WES7/Linux
SDK	Dll for VC, Dll for Visual Studio.Net
CPU Module	
CPU	Intel E3845, 1.91 GHz, 64-bit, Quad core
System Memory	4 GB DDR3
MRAM	128 KB
EEPROM	16 KB
Storage	2.5" SATA drive bay, 16 GB CF card
RTC (Real Time Clock)	Provide seconds, minutes, hours, dates, day of week, month, year
64-bit Hardware Serial Number	Yes, for software copy protection
Watchdog Timer	Dual Watchdog Timer
Rotary Switch	1 x 10 Position (0 ~ 9)
Audio	Microphone-In and Earphone-Out
Buzzer	Yes
Display	
VGA Resolution	1280 x 1024 ~ 1920 x 1080 (16 : 9), 640 x 480 ~ 1024 x 768 (4 : 3)
HDMI Resolution	1280 x 1024 ~ 1920 x 1080 (16 : 9), 640 x 480 ~ 1024 x 768 (4 : 3)
LED Indicator	1 x Power, 1 x HDD, 2 x Programmable
Communication Ports	
Ethernet	2 x RJ-45, 10/100/1000 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
USB 2.0	4
SMA Connector	2
COM1	Internal communication with the high profile VX-Board modules
COM2	RS-232/485 (RS-232: RxD, TxD, GND; RS-485: Data+, Data-); 3000 VDC isolated
COM3	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); 3000 VDC isolated
COM4	RS-232/RS-485/RS-422, 3000 VDC isolated
COM5	RS-232/RS-485/RS-422, 3000 VDC isolated
I/O Expansion	
I/O Type	XV-board, PCI-E Mini-Slot
Mechanical	
Casing	Metal
Ingress Protection Rating	IP30 (Aluminum)
Dimensions (W x L x H)	254 mm x 164 mm x 74 mm
Installation	DIN-Rail, Wall mounting
Environmental	
Operating Temperature	-25 ~ +70 °C
Storage Temperature	-40 ~ +75 °C
Ambient Relative Humidity	10 ~ 90 % RH, Non-condensing
Power	
Input Range	+10 ~ 30 VDC (1 kV Isolated)
Consumption	18 W (0.75 A @ 24 VDC)

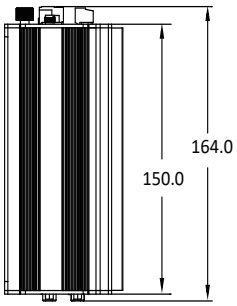
Appearance



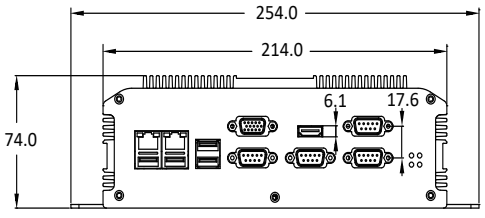
Dimensions (Units: mm)



Front View



Right Side View



bottom View

Ordering Information

iBPC-4081 CR	Industrial fanless embedded Box PC with Intel Atom E3845 CPU and 1 I/O Bus (RoHS)

Option Accessories

XV-Board	Add-on I/O Expansion Board