

# BXP-A101 Series

Compact box computers with Intel Atom® x6211E/x6425E processor



## Features and Benefits

- Box-type computer with fanless design
- Intel Atom® X Series processor
- Compact size to fit most field applications
- External dual storage with a removable cover design for easy maintenance
- -30 to 70°C operating temperature range

## Certifications



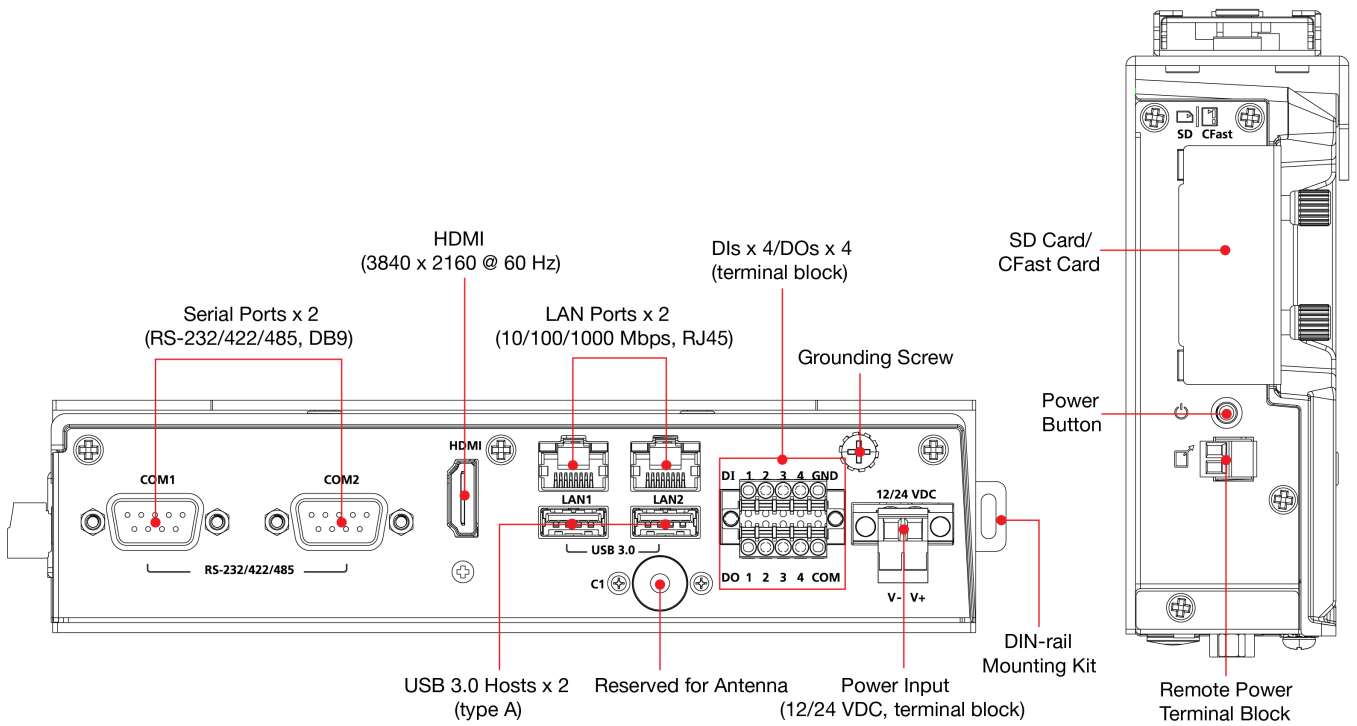
## Introduction

The BXP-A101 computers are powered by an Intel Atom® X processor and come with 2 Gigabit Ethernet ports, 2 software-selectable RS-232/422/485 serial ports, 4 digital inputs, and 4 digital outputs. A dual-storage design that includes CFast and SD slots, and an internal M.2 socket enable easy storage expansion. A removable cover design enables quick and easy storage swap, delivering one more user-friendly feature in a reliable, durable, and versatile platform.

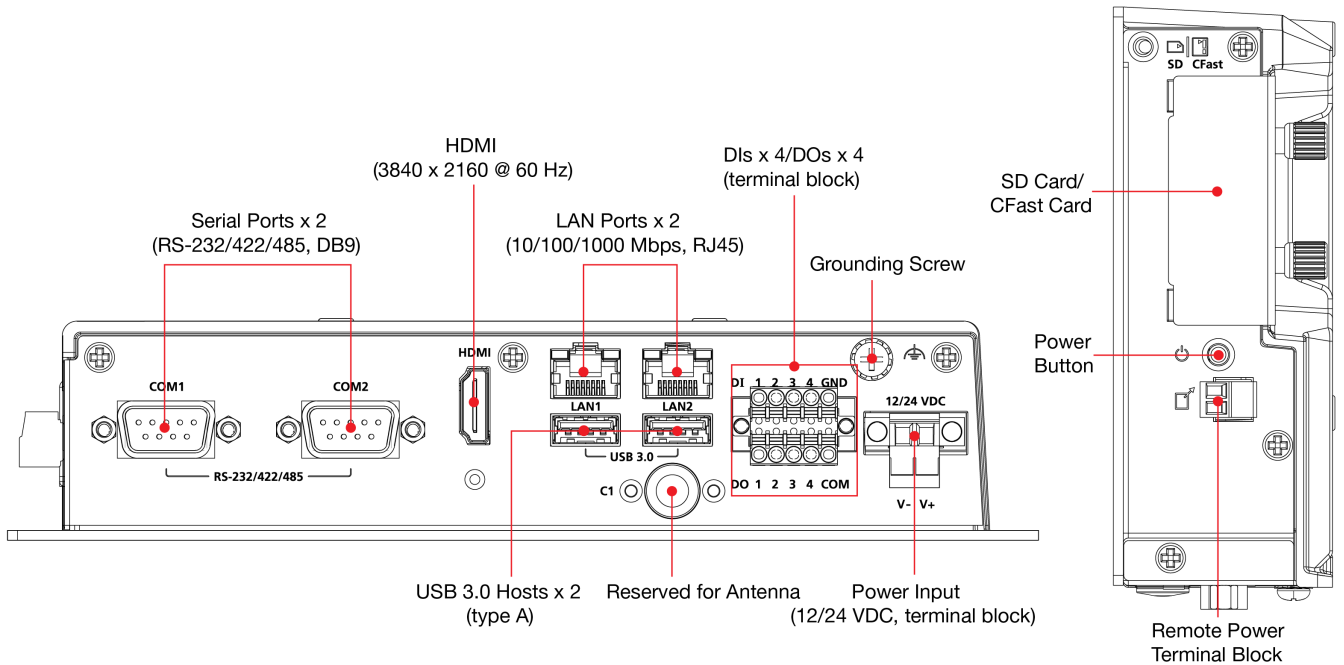
The BXP-A101 Series have compact wall-mounting and DIN-rail mounting models. The computers come in a fanless design and can withstand a temperature range of -30 to 70°C, making them a good fit for harsh operating environments. The built-in TPM 2.0 module secures the platform from unauthorized access. The BXP-A101 is an intelligent computing solution that perfectly fulfills both OT and IT requirements of industrial environments.

# Appearance

## DIN-rail Models (BXP-A101-E2-DR-T/E4-DR-T/E2-M2-DR-T/E4-M2-DR-T)



## Wall-mount Models (BXP-A101-E2-T/E4-T/E2-M2-T/E4-M2-T)



## Specifications

### Computer

CPU	BXP-A101-E2 models: Intel Atom® x6211E processor (dual-core, 1.5 M cache, 1.30 GHz) BXP-A101-E4 models: Intel Atom® x6425E processor (quad-core, 1.5 M cache, 2.00 GHz)
System Memory Slot	SODIMM DDR4 slots x 1, up to 32 GB max.
System Memory Pre-installed	8 GB DDR4
Storage Slot	BXP-A101-E2-T/E4-T/E2-DR-T/E4-DR-T: CFast slot x 1 (SATAIII interface) SD slot x 1, SD 3.0 interface (SDHC/SDXC) BXP-A101-E2-M2-T/E4-M2-T/E2-M2-DR-T/E4-M2-DR-T: CFast slot x 1 (SATAIII interface) SD slot x 1, SD 3.0 interface (SDHC/SDXC) M.2 M-key 2242 slot x 1
Expansion Slots	mPCIe slots x 1
Supported OS	Windows images and drivers supported: - Windows 11 IoT Enterprise LTSC 2024 64-bit - Windows 11 Professional 64-bit - Windows 10 IoT Enterprise LTSC 2021 64-bit  Linux image supported: - Debian 12 (kernel 6.10)  Linux drivers supported: - Debian 12 (kernel 6.10) - Ubuntu 22.04 LTS (kernel 5.15) - RHEL 9 (kernel 5.14)
Graphics Controller	Intel® UHD Graphics

### Computer Interface

Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2
Serial Ports	RS-232/422/485 ports x 2 (software-selectable, DB9 male connector)
USB 3.0	USB 3.0 hosts x 2, type-A connectors
Digital Input	DIs x 4
Digital Output	DOs x 4
TPM	TPM v2.0
Video Output	HDMI 1.2a x 1, (type-A connector)
SIM Format	Nano
Number of SIMs	1
Buttons	Power button

### Ethernet Interface

Magnetic Isolation Protection	1.5 kV (built-in)
-------------------------------	-------------------

### Serial Interface

Baudrate	50 bps to 115.2 kbps
Connector	DB9 male
Data Bits	5, 6, 7, 8

Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
Flow Control	RTS/CTS, XON/XOFF, Automatic Data Direction Control (ADDC) for RS-485, RTS Toggle (RS-232 only)

#### Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

#### Digital Inputs

Connector	Spring-type Euroblock terminal
Sensor Type	Dry contact Wet contact (NPN)
Dry Contact	Logic 0: Close to GND Logic 1: Open
Wet Contact (COM to DI)	Logic 0: 10 to 30 VDC Logic 1: 3 VDC max

#### Digital Outputs

Connector	Spring-type Euroblock terminal
I/O Type	Sink
Current Rating	200 mA per channel
Voltage	Logic 0: 200mA max. per channel, sink Logic 1: 24 VDC (typ.), 30 VDC (max.), open collector

#### LED Indicators

System	Power x 1
LAN	2 per port (10/100/1000 Mbps)

#### Power Parameters

Input Voltage	12/24 VDC
Power Connector	Screw-fastened Euroblock terminal
Power Consumption	50 W

#### Physical Characteristics

Housing	Metal
IP Rating	IP20
Dimensions	BXP-A101-E2-T/E4-T/E2-M2-T/E4-M2-T: 207 x 116.1 x 44.5 mm (8.14 x 4.57 x 1.75 in) BXP-A101-E2-DR-T/E4-DR-T/E2-M2-DR-T/E4-M2-DR-T: 186 x 121 x 46.7 mm (7.32 x 4.76 x 1.84 in)

Weight	BXP-A101-E2-T/E4-T/E2-M2-T/E4-M2-T: 1,225 g (2.7 lb) BXP-A101-E2-DR-T/E4-DR-T/E2-M2-DR-T/E4-M2-DR-T: 1,500 g (3.3 lb)
Installation	BXP-A101-E2-T/E4-T/E2-M2-T/E4-M2-T: Wall mounting BXP-A101-E2-DR-T/E4-DR-T/E2-M2-DR-T/E4-M2-DR-T: DIN-rail mounting
<b>Environmental Limits</b>	
Operating Temperature	-30 to 70°C (-22 to 158°F)
Storage Temperature	-40 to 70°C (-40 to 158°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
<b>Standards and Certifications</b>	
EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A BSMI
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 0.5 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 0.5 kV, Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF: 1 A/m at 50 to 60 Hz
Safety	BSMI IEC 62368-1 UL 62368-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6 IEC 60068-2-64
Package Drop Test	ISTA 1A
Package Vibration Test	ISTA 1A
<b>Declaration</b>	
Green Product	RoHS, CRoHS, WEEE
<b>Reliability</b>	
Time Source	Built-in RTC (real-time clock) with lithium-battery backup
Automatic Reboot Trigger	Built-in WDT
<b>MTBF</b>	
Time	1,581,038 hrs
Standards	Telcordia (Bellcore), GB
<b>Warranty</b>	
Warranty Period	3 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

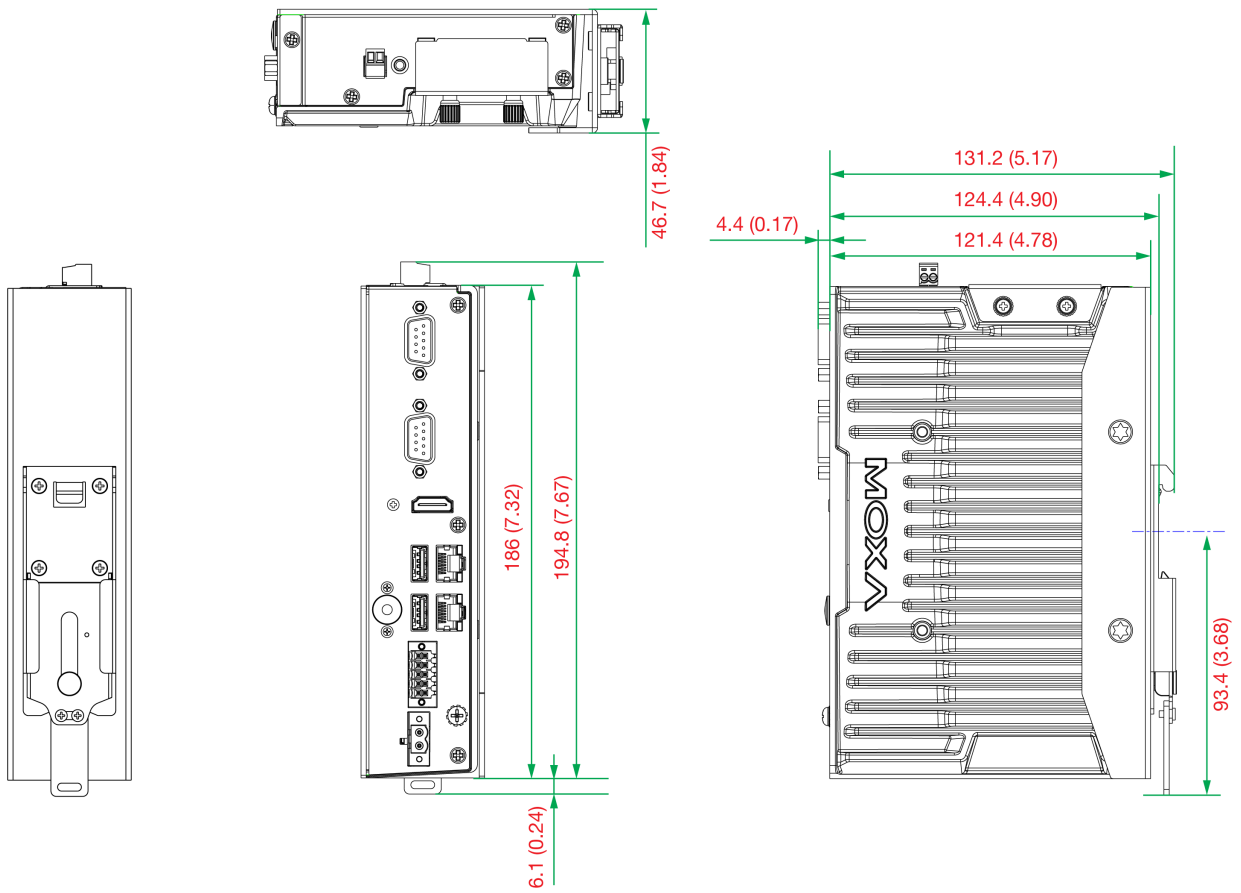
## Package Contents

Device	1 x BXP-A101 Series computer
Installation Kit	1 x terminal block, 2-pin, for DC power input 1 x terminal block, 10-pin, for DIO 1 x terminal block, 2-pin, for connecting a power button extension 1 x M.2 screw (models with M.2 sockets)
Documentation	1 x quick installation guide 1 x warranty card

## Dimensions

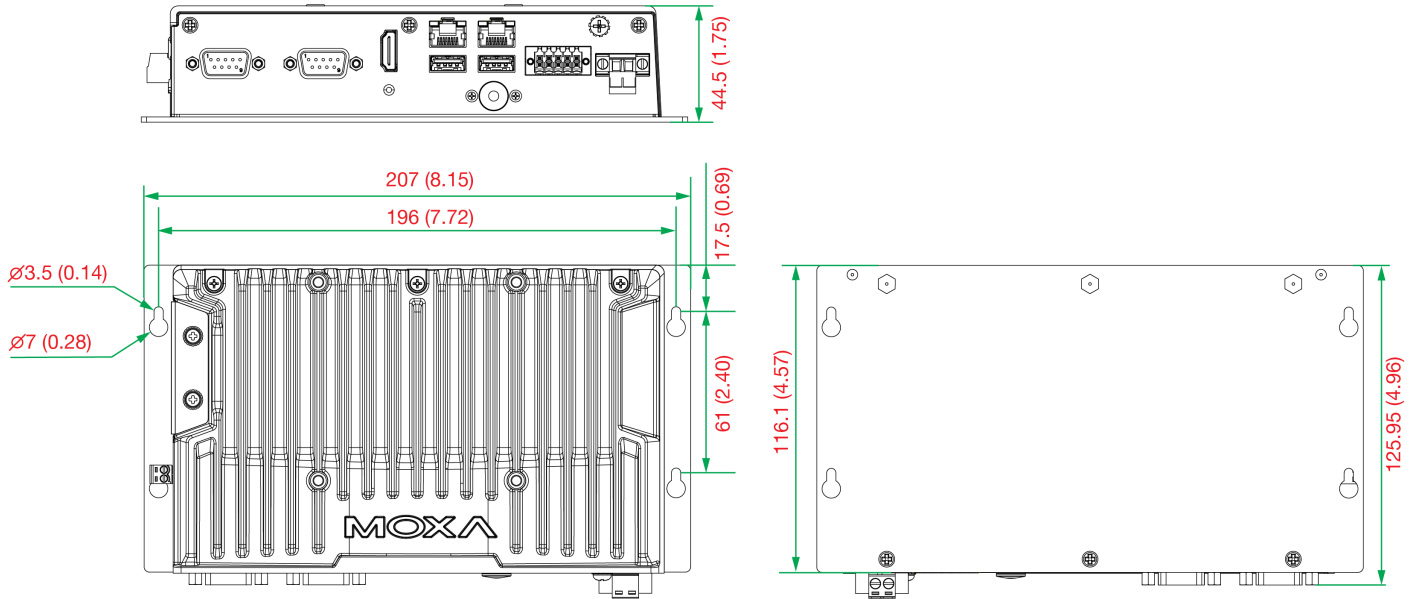
### DIN-rail Models (BXP-A101-E2-DR-T/E4-DR-T/E2-M2-DR-T/E4-M2-DR-T)

Unit: mm (inch)



## Wall-mount Models (BXP-A101-E2-T/E4-T/E2-M2-T/E4-M2-T)

Unit: mm (inch)



## Ordering Information

Model Name	CPU	Memory	Storage Slots	OS Preinstalled	LAN/Serial	USB 3.0	DIs/DOs	Video Outputs	Default Mounting	Power Input
BXP-A101-E2-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	Wall Mounting	12/24 VDC
BXP-A101-E4-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	Wall Mounting	12/24 VDC
BXP-A101-E2-DR-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	DIN-rail Mounting	12/24 VDC
BXP-A101-E4-DR-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	DIN-rail Mounting	12/24 VDC
BXP-A101-E2-M2-T	Intel Atom® x6211E	8 GB	1 x M.2 1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	Wall Mounting	12/24 VDC
BXP-A101-E4-M2-T	Intel Atom® x6425E	8 GB	1 x M.2 1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	Wall-mount	12/24 VDC
BXP-A101-E2-M2-DR-T	Intel Atom® x6211E	8 GB	1 x M.2 1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	DIN-rail mount	12/24 VDC
BXP-A101-E4-M2-DR-T	Intel Atom® x6425E	8 GB	1 x M.2 1 x CFast 1 x SD	-	2/2	2	4 x DIs 4 x DOs	1 x HDMI	DIN-rail mount	12/24 VDC

© Moxa Inc. All rights reserved. Updated Sep 01, 2025.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.