



# ITPC-B156-CH2

15.6" Fanless Industrial Touch Panel PC

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## Technical Support Documentation

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| <b>Document Version:</b> | 1.0  |
| <b>Date:</b>             | February 2026                                  |
| <b>Product:</b>          | ITPC-B156-CH2                                  |
| <b>Platform:</b>         | Onboard Intel® 8/10/11 Core i3/i5/i7 Processor |
| <b>Classification:</b>   | Touch Panel PC                                 |

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*All product specifications are subject to change without notice.*

# Table of Contents

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- 1. Product Overview**
- 2. Hardware Specifications**
- 3. I/O Interfaces & Connectivity**
- 4. Mechanical Dimensions**
- 5. BIOS Configuration**
- 6. Operating System Installation**
- 7. Touchscreen Configuration**
- 8. Expansion Module Installation**
- 9. Mounting Guide**
- 10. Maintenance & Troubleshooting**
- 11. Warranty & Support**
  - Appendix A — Order Information & Accessories

# 1. Product Overview

The ITPC-B156-CH2 is a 15.6" fanless industrial touch panel PC designed for demanding environments requiring reliable, maintenance-free operation. Built with an aluminum alloy chassis and IP65-rated front panel, it combines computing performance with industrial-grade durability.

## 1.1 Key Features

- Fanless Aluminum Design
- Onboard Intel® 8/10/11 Core i3/i5/i7 Processor
- 2 x RS232/RS422/RS485 COM Optional,
- 6 x COM Optional
- 2 x 1000M LAN Ports
- IP65 full flat front panel

## 1.2 Target Applications

The ITPC-B156-CH2 is suitable for Industrial Automation Medical Logistics Transportation, Warehousing, Machine Vision, etc..

## 1.3 Package Contents

Verify the following items are included in the package:

| Item                              | Qty | Description                        |
|-----------------------------------|-----|------------------------------------|
| Power Adapter                     | 1   | 12V 5A                             |
| Power Cord                        | 1   | CN, US, UK, EU etc.                |
| Embedded Buckle                   | 4   | For Standard Embedded Installation |
| Desktop, Wall Mount, Stereo Stand | 1   | Optional                           |

**NOTE:** If any item is missing or damaged, contact IWILL Technology support immediately at [support@iwilltech.co.uk](mailto:support@iwilltech.co.uk).

## 2. Hardware Specifications

Complete technical specifications for the ITPC-B156-CH2.

| SYSTEM          |  |
|-----------------|--|
| Model           | ITPC-B156-CH2  |
| Processor       | Onboard Intel® 8/10/11 Core i3/i5/i7 Processor   |
| Memory          | 2 × DDR4 2133/2400 SODIMM Memory Slot Max. Support 32GB  |
| BIOS            | AMI EFI BIOS   |
| Graphics        | Integrated Intel® UHD Graphics   |
| Display Ports   | 1 × HDMI, 1 × LVDS, 1 × VGA Support synchronous/asynchronous 3 display 1 × M.2 2280 slot SATA Protocol |
| Storage         | 1 × 2.5-inch SATA ( , )  |
| Expansion       | 1 × Mini PCIe slot Support WIFI/Bluetooth/3G/4G Optional embedded SIM slot                             |
| OS Support      | Windows 10, Linux  |
| I/O PORTS       |  |
| Ports           | 2 × COM COM1 COM2 RS232/RS422/RS485 Optional, 6 × COM optional 1 × Power Button                        |
| POWER & OTHER   |  |
| Power Input     | DC 12V (9-36V can be customized)   |
| Other Functions | (Standard version doesn't set these function)  |
| DISPLAY & TOUCH |  |
| Display Type    | 15.6" TFT-LCD  |
| Brightness      | 250 cd/m <sup>2</sup>  |
| Viewing Angle   | Full Angle   |
| Contrast        | 16: 9  |
| Resolution      | 1920 × 1080  |
| Touch Type      | Industrial Grade Multi-touch Capacitive touch screen, Lifetime: more than 50000 Thousand Times         |
| ENVIRONMENT     |  |
| Operating Temp. | 0■ +50■ Commercial -20■ +60■ Industrial SSD Surface air flow   |
| Humidity        | 5% ~ 95% (non-condensing)  |
| Certifications  | CE, CCC, FCC Class A, RoHS   |
| MECHANICAL      |  |
| Dimensions      | 384 × 234 × 65 mm  |
| Weight          | 3.2 kg   |

## 3. I/O Interfaces & Connectivity

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### 3.1 I/O

| Connector | Description  |
|-----------|--|
| 2         | 2 × COM COM1 COM2 RS232/RS422/RS485 Optional, 6 × COM optional |
| 1         | 1 × Power Button   |

**WARNING:** Always power off the unit and disconnect all power sources before connecting or disconnecting any internal components.

## 4. Mechanical Dimensions

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All dimensions are in millimeters (mm).

| Parameter          | Value             |
|--------------------|-------------------|
| Overall Dimensions | 384 x 234 x 65 mm |
| Weight             | 3.2 kg            |

**NOTE:** For detailed technical drawings with mounting hole positions, contact IWILL Technology at [support@iwilltech.co.uk](mailto:support@iwilltech.co.uk).

## 5. BIOS Configuration

The ITPC-B156-CH2 uses AMI EFI BIOS. Access the BIOS setup by pressing **DEL** or **F2** during the POST screen at boot.

### 5.1 Entering BIOS Setup

1. Connect a USB keyboard to the unit.
2. Power on the system.
3. Press **DEL** or **F2** repeatedly as the splash screen appears.
4. The AMI EFI BIOS setup utility will load.

### 5.2 Important BIOS Settings

| Setting                   | Location           | Description  |
|---------------------------|--------------------|--|
| Boot Order                | Boot Tab           | Set primary boot device (SSD, USB, PXE)                      |
| Power On After Power Loss | Advanced > ACPI    | Set to [Power On] for automatic startup on power restoration |
| Wake-on-LAN               | Advanced > Network | Enable for remote wake capability over LAN                   |

**NOTE:** BIOS menu paths may vary between firmware revisions. If a setting is not found, check adjacent menus or consult IWILL Technology support.

### 5.3 BIOS Reset

**Method 1 (Keyboard):** Enter BIOS setup and press **F9** to load optimized defaults, then **F10** to save and exit.

**Method 2 (CMOS Reset):** Power off, disconnect power, open the chassis, locate the CMOS clear jumper on the motherboard, short for 5 seconds, then remove.

## 6. Operating System Installation

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### 6.1 Supported Operating Systems

| OS         | Notes   |
|------------|---|
| Windows 10 | 64-bit (21H2+). Recommended for most deployments.   |
| Linux      | Ubuntu 22.04+, CentOS, or compatible distributions. |

### 6.2 Installation via USB

1. Prepare a bootable USB drive with the desired OS image (use Rufus, balenaEtcher, or dd).
2. Insert the USB drive into an available USB port.
3. Enter BIOS (DEL/F2) and set USB as the first boot device.
4. Save and restart. The OS installer should load from USB.
5. Follow on-screen instructions. Select the internal drive as the install target.
6. After installation, re-enter BIOS and restore the internal drive as primary boot device.

### 6.3 Driver Installation

Windows 10/11 should automatically detect most hardware via Windows Update. For chipset, graphics, and LAN drivers, download the latest versions from Intel's support site or contact IWILL Technology for the driver package.

## 7. Touchscreen Configuration

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### 7.1 Windows Touch Calibration

The industrial touchscreen is pre-calibrated at the factory. If recalibration is needed:

1. Open **Control Panel > Tablet PC Settings**.
2. Click **Calibrate...** under the Display tab.
3. Select **Touch input** and follow the on-screen crosshair targets.
4. Tap **Save** to store the calibration data.

### 7.2 Linux Touch Configuration

On Linux, the touchscreen is typically managed by the **hid-multitouch** kernel module. Use **xinput** to list and configure touch devices.

### 7.3 Multi-Touch Support

The capacitive touchscreen supports multi-touch gestures (pinch-to-zoom, two-finger scroll) natively in Windows 10/11 and in Linux with libinput.

## 8. Expansion Module Installation

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### 8.1 Available Expansion Slots

- 1 x Mini PCIe slot Support WIFI/Bluetooth/3G/4G Optional embedded SIM slot

### 8.2 Installation Procedure

1. Power off and disconnect all power sources.
2. Remove the chassis access panel screws.
3. Locate the target expansion slot on the motherboard.
4. Insert the module at a 30° angle and press down until it clicks into the retaining clip.
5. If applicable, connect antenna pigtail cables to the module's U.FL connectors.
6. Replace the access panel and secure with screws.

**WARNING:** Always use ESD protection (grounding strap) when handling internal expansion modules. Static discharge can permanently damage components.

### 8.3 Storage Installation

- 1 x 2.5-inch SATA
- ( , )

## 9. Mounting Guide

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### 9.1 Panel Cutout Preparation

Insert the unit into the panel cutout from the front. From the rear, attach the mounting clamps and tighten evenly to compress the gasket seal against the panel surface.

### 9.2 VESA / Desktop Mounting

The ITPC-B156-CH2 supports VESA mounting (check rear panel for mounting hole pattern). Use M3 or M4 screws as appropriate — do not exceed the maximum thread depth.

**WARNING:** Ensure adequate ventilation around the unit. Do not block the heatsink fins or ventilation openings.

# 10. Maintenance & Troubleshooting

## 10.1 Routine Maintenance

- **Screen Cleaning:** Use a soft, lint-free cloth with isopropyl alcohol. Do not use abrasive cleaners.
- **Heatsink Cleaning:** Periodically blow out dust from the heatsink fins using compressed air.
- **Connector Inspection:** Check connectors for damage or corrosion, especially in harsh environments.
- **Firmware Updates:** Check with IWILL Technology for BIOS updates that may improve stability.

## 10.2 Troubleshooting Guide

| Symptom              | Possible Cause                        | Solution   |
|----------------------|---------------------------------------|--|
| No power / no LED    | Power adapter disconnected or faulty  | Verify DC input voltage. Try a different adapter.      |
| No display output    | Display cable loose or BIOS setting   | Reseat display cable. Check BIOS display settings.     |
| Touch not responding | Driver missing or USB disconnected    | Install touch driver. Check internal USB connection.   |
| System freezes       | Memory or storage issue               | Reseat RAM. Test with known-good SSD. Enable watchdog. |
| Overheating          | Blocked heatsink or high ambient temp | Clean heatsink. Ensure adequate airflow.               |
| Boot loop            | Corrupted BIOS or OS                  | Reset BIOS to defaults (F9). Reinstall OS.             |

# 11. Warranty & Support

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## 11.1 Warranty Coverage

The ITPC-B156-CH2 is covered by a standard manufacturer warranty. The warranty covers defects in materials and workmanship under normal use conditions. It does not cover damage from misuse, unauthorized modifications, or exposure beyond rated specifications.

## 11.2 Technical Support

**IWILL Technology** provides worldwide technical support through regional offices:

| Region           | Website  | Email  |
|------------------|--|--|
| United Kingdom   | <a href="http://www.iwilltech.co.uk">www.iwilltech.co.uk</a> | <a href="mailto:support@iwilltech.co.uk">support@iwilltech.co.uk</a> |
| MENA Region      | <a href="http://www.iwillmena.com">www.iwillmena.com</a>     | <a href="mailto:support@iwillmena.com">support@iwillmena.com</a>     |
| Portugal & Spain | <a href="http://www.iwill.pt">www.iwill.pt</a>               | <a href="mailto:apoyo@iwill.pt">apoyo@iwill.pt</a>                   |
| Poland           | <a href="http://www.iwill.pl">www.iwill.pl</a>               | <a href="mailto:wsparcie@iwill.pl">wsparcie@iwill.pl</a>             |
| Denmark          | <a href="http://www.iwill.dk">www.iwill.dk</a>               | <a href="mailto:stotte@iwill.dk">stotte@iwill.dk</a>                 |
| Bulgaria         | <a href="http://www.iwill.bg">www.iwill.bg</a>               | <a href="mailto:support@iwill.bg">support@iwill.bg</a>               |

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## 11.3 RMA Process

To initiate a return for repair or replacement, contact IWILL Technology support at the regional office nearest to your location with your product serial number and a description of the issue.

# Appendix A — Order Information & Accessories

## A.1 Order Configurations

| Configuration                            | Description  |
|--|--|
| ITPC-B156-CH2 CPU Specification          | ITPC-B156-CH2 CPU Specification  |
| Configuration 1 8th core i3/i5/i7 Standa | Configuration 1 8th core i3/i5/i7 Standard Port  |
| Configuration 2 10th core i3/i5/i7 Stand | Configuration 2 10th core i3/i5/i7 Standard Port   |
| Configuration 3 11th core i3/i5/i7 Stand | Configuration 3 11th core i3/i5/i7 Standard Port   Remark There is conflict between the expansion function ports' fixed position and the standard version ports' fixed position,   so if you need some expansion function ports, please check with us first. |

## A.2 Included Accessories

| Item                              | Qty | Specification                      |
|-----------------------------------|-----|------------------------------------|
| Power Adapter                     | 1   | 12V 5A                             |
| Power Cord                        | 1   | CN, US, UK, EU etc.                |
| Embedded Buckle                   | 4   | For Standard Embedded Installation |
| Desktop, Wall Mount, Stereo Stand | 1   | Optional                           |

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