HIKVISION

Control Terminal- TPE100

User Manual

User Manual

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About this Manual

This Manual is applicable to Control Terminal DS-TPE100.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

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Regulatory Information

FCC Information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance

with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Safety Instruction

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into 'Warnings' and 'Cautions':

Warnings: Serious injury or death may be caused if any of these warnings are neglected.

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

⚠️	⚠️
Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

⚠️ **Warnings:**

- Do not drop the device or subject it to physical shock.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC, 48 VDC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.

- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

⚠️ **Cautions:**

- Read the manual carefully before you use the device.
- Make sure the device power is turned off and the plug is unplug from the power socket when you do the operations, including plug or remove the board card.
- Make sure the device power is turned off when plug or unplug any cables.
- Wait at least 30 seconds to power on the device if the device is newly shut down to avoid the device damage by frequent power off/power on.
- For some precise unit is quite sensitive to the ESD, make sure electrostatic discharge has been finished if you want to dismount or assemble the device.
- If no ESD workbench is provided, you can follow the tips below to lower the damage might be caused by ESD.
  - o Wear a wrist strap, and touch the metal parts of the device with the wrist strap.
  - o Touch the metal part on the machine instead of the components.
  - o Avoid the unnecessary walking around.
  - o Hold the edge of the components, especially for the board card.
  - o Put all the components on a conducting foam pad.
  - o Move the components on the workbench as less as possible.
- It is recommended that you use a magnetic cross screwdriver to tighten or loosen the screws. Make sure no tool or components are left in the machine.
- Keep the device away from water and any liquid.
- While shipping, the device should be packed in its original packing.
- Improper use or replacement of the battery may result in hazard of explosion.
- Ensure unit is installed in a well-ventilated, dust-free environment.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the

unit.

● Use the device in conjunction with an UPS if possible.

● Power down the unit before connecting and disconnecting accessories and peripherals.

● A factory recommended HDD should be used for this device.

Table of Contents

Chapter 1   About This Manual

Purpose

This document introduces the DS-TPE100 Control Terminal and relevant settings of the product.

Intended Audience

This document is intended for:

Technical support engineers

Maintenance engineers

Chapter 2 Introduction

2.1 Product Overview

With the features of low consumption and high performance, DS-TPE100 is designed for entrance/exit control. Adopting the strong aluminum alloy extrusions without fans on its body, the control terminal has a compact structure with good heat dissipation. The control terminal is applicable to the challenging environment of dusty and high electromagnetic interference.

Figure 2-1 Overview of Control Terminal

2.2 Performance

CPU:

Intel® CPU Bay Trail-D J1900 with integrated MC and GPU.

CS:

Intel® CPU Bay Trail-D J1900

Memory:

4GB DDR3L, with memory frequency of 1333MHz

Ethernet Interface:

10/100/1000Mbps Self-adaptive

Display:

➢ Integrated Graphics Processing Unit

➢ VGA, with max. resolution and fresh rate of $2560 \times 1600@60Hz$

➢ HDMI, with max. resolution and fresh rate of 1920x1080@60Hz

Audio:

Standard HD, support LINE-IN/LINE-OUT

Available interfaces:

➢ 2 10/100/1000Mbps Ethernet interfaces, and 4 10M/100Mbps Ethernet interfaces

➢ 4 USB2.0 interfaces

➢ 2 RS485 interfaces

➢ 3 RS232 interfaces

➢ 1 VGA interface

➢ 1 HDMI interface

➢ 1 audio interface (LINE-in/Line-out)

➢ 1 12V DC power input

Others:

3.5' HDD(1 pcs),

Adapter (60w)

Consumption:

40W at max.

2.3 Specification

Dimension & Weight:

Dimension: 245mm(L)*170mm(W)*65mm(H)

Weight: 4.05kg

Working Environment:

Temperature: -20℃～55℃

Humidity: 10%～90% (Non-condensation)

Storing Environment:

Temperature: -40℃～80℃

Humidity: 10%～90% (Non-condensation)

Electromagnetic compatibility:

➢ GB9254-2008, radiation disturbance (A), conducted disturbance(A)

➢ GB/T17626.2-2006 ESD (2)

➢ GB/T17626.4-2008 EFT (2)

➢ GB/T17626.5-2008SURGE(2)

➢ GB/T17626.6-2008CS (2)

➢ GB/T17626.11-2008, auto disconnected when voltage dip, voltage short circuit

Reliability:

MTBF≥50000h

Safety:

GB4943

Environmental Suitability:

➢ Anti-vibration: 5-19Hz/1.0mm amplitude, 19-200Hz/1.0g accelerated speed

➢ Shock Resistance: 10g accelerated speed, 11ms period

2.4 Shipping & Storage Requirement

● Shipping

It is recommended that the device is packed in its original packing when shipping. Make sure the device is away from the flammable, combustible and corrosive objects, and the rain, snow, and liquid as well.

● Storing

It is recommended that the device is packed in its original packing when storing. The ideal storing temperature is -40℃～80℃, and the ideal storing humidity is 10%～90%.

Keep the device away from the flammable, combustible and corrosive objects, and the storing environment should be free of the strong mechanical resonance and strong magnetic.

The device package should be underlay at least 10cm from the ground. And it should be at least 50cm away from the wall, heat source, cold source, and window or air inlet.

Chapter 3 Installation
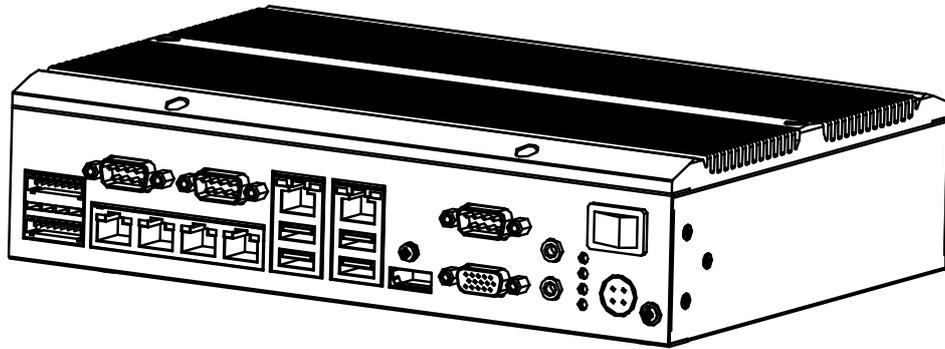
3.1 Appearance

The device appearance is shown below.
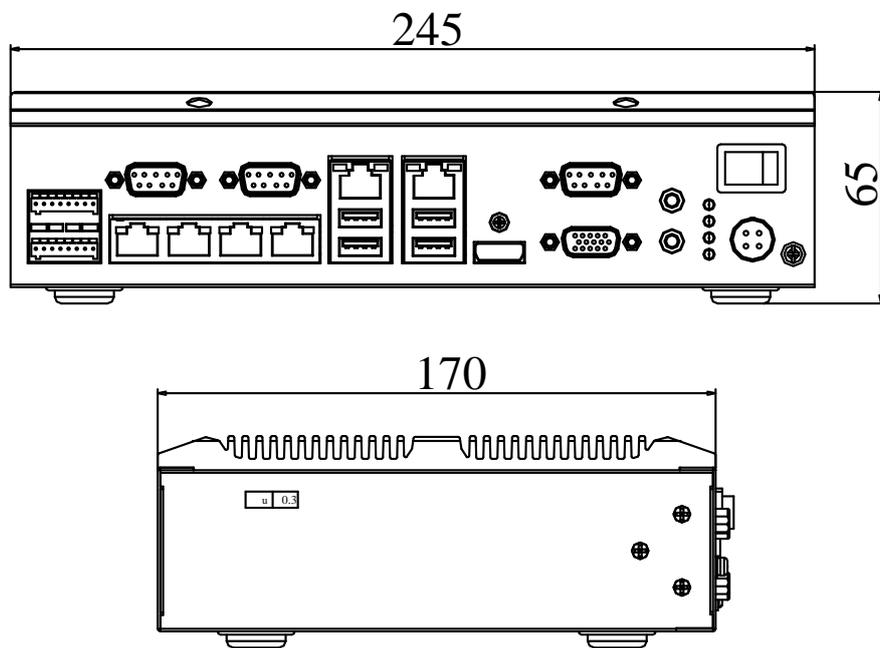

Figure 3-1 Appearance

3.2 Dimension

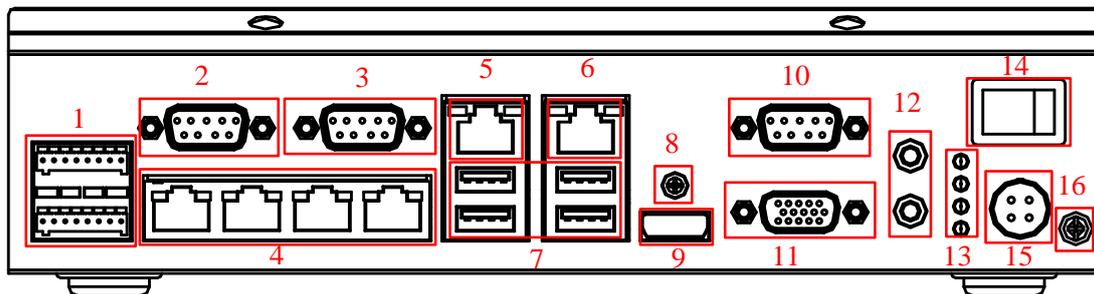Figure 3-2 Dimension

3.3 Interface Description

Figure 3-3 Interface Introduction

Figure 3-4 Interface Description

No.	Name	Description
1	ALARM OUT	4-ch alarm outputs
	ALARM IN	2-ch alarm inputs
	RS-485	2 RS-485 interfaces
2/3/10	RS-232	3 RS-232 interfaces
4	LAN1	4 10/100M Ethernet Interfaces
5	G1	10/100/1000M Ethernet Interface
6	G2	100/1000M Ethernet Interface
7	USB	USB Interface
8	Screw	Lock Screw
9	HDMI	HDMI
11	VGA	VGA Interface
12	AUDIO IN/OUT	1-ch audio input/output
13	Power Indicator	Indicator goes to green if power is connected.
	Alarm Indicator	Indicator goes to red if the alarm is triggered.
	HDD Indicator	The green indicator flashes when HDD is working.
	Working Status Indicator	The indicator stays in green when the device is working normally.
14	POWER	Power switch, press 5 seconds to turn on/off the device.

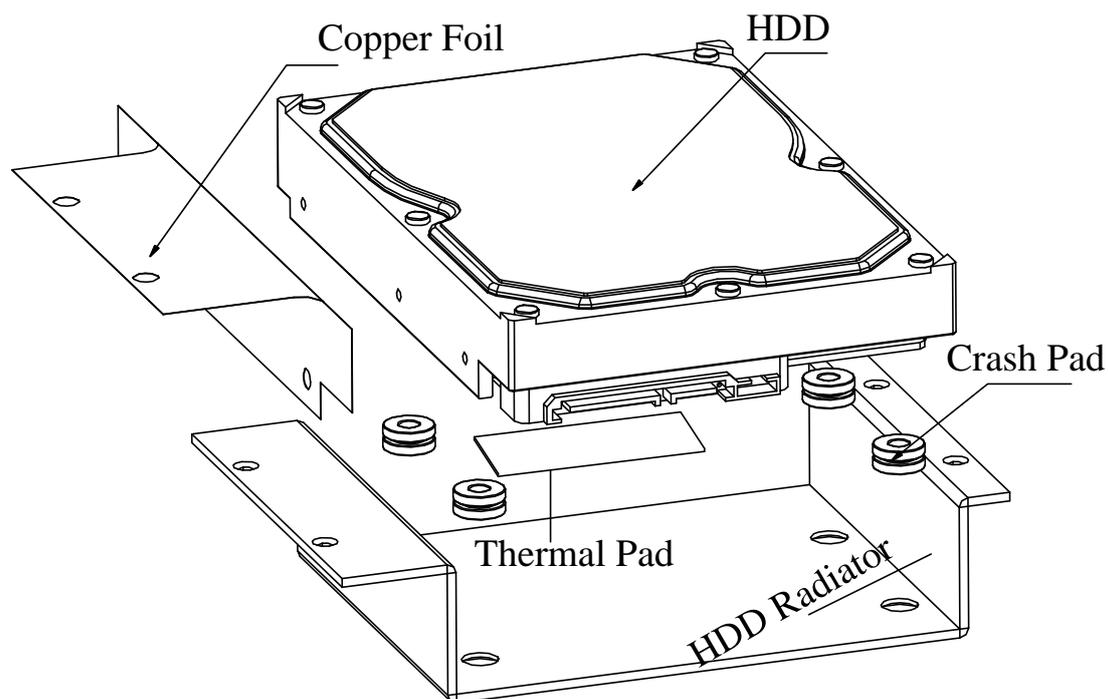| No.	Name	Description
15	DC-12V	Power Adapter Interface
16	GND	Grounding

3.4 Assembling HDD

Figure 3-5 Assemble the HDD

Assemble the HDD first before you install the HDD to the device.

Steps:

1. Align the copper foil to one side of the HDD, and fix the thermal pad to the motor part.
2. Fix the crash pads to the HDD radiator.
3. Secure the HDD to the HDD radiator.
4. Install the copper foil to the other side of the HDD.

3.5 Assembling the Device

Upper Cover

HDD

Thermal module

PCB Board
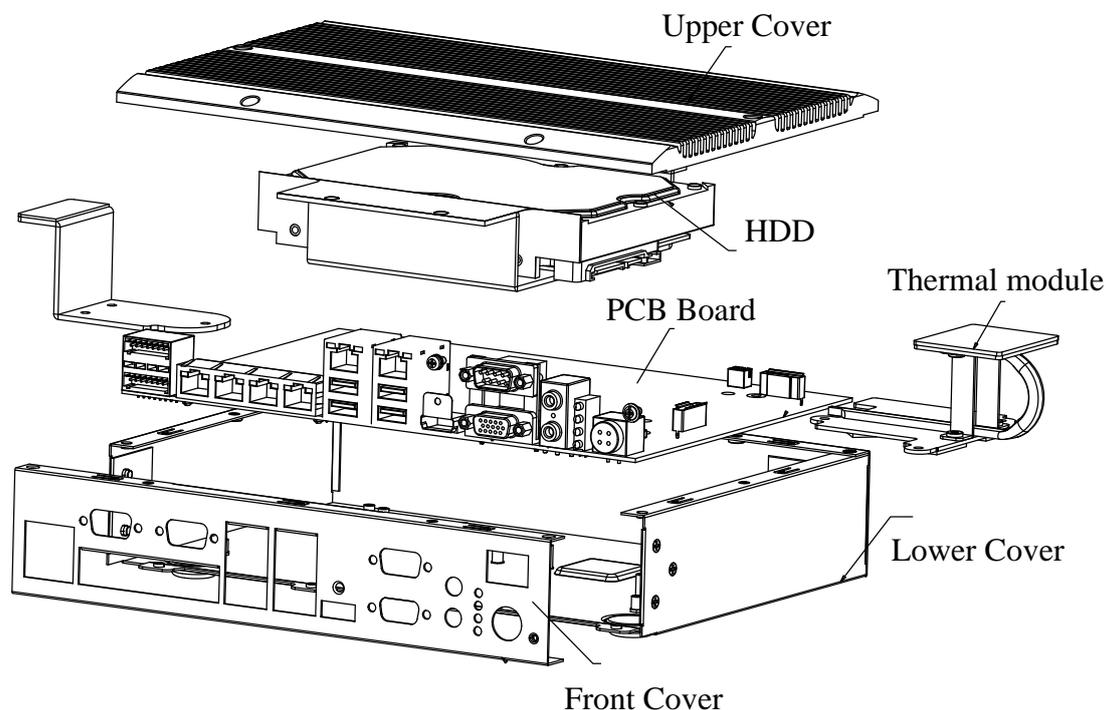
Lower Cover

Front Cover

Figure 3-6 Main Components

Steps:

1. Align the PCB board with the standoffs, and secure the PCB board by tightening the lock screws.

2. Align the thermal module with the standoffs, and secure the thermal module with by tightening the lock screws.

3. Install the HDD to the standoffs, and tighten the lock screws.

4. Connect the HDD cables to the corresponding interfaces.

5. Align the front cover to the interfaces of the PCB board, and tighten the lock screws.

6. Install the fixed strip, align the upper cover to the lower cover, and secure the upper cover and lower cover by tightening the lock screws.

7. Install the grounding screws.