Trusted ePlatform Services

ADVANTECH

Patient Infotainment Terminal Platform

Rev.0.1

Patient Infotainment Terminal PIT-1701

User Manual

I. About This Guide

This user guide aims to describe the PIT-1701 series device in an easy way to follow manner. It describes the hardware feature and software settings for PIT-1701. Users will learn how to use the PIT-1701 and its powerful features just by reading and following the instructions in this guide.

Information is organized as followed :

1. About This Guide
   This Chapter describes the organization of this manual.

2. Introduction
   This Chapter briefly introduces the PIT-1701 product.

3. Hardware Description
   This Chapter describes the hardware features of the PIT-1701.

4. Software Description
   This Chapter describes the software features of the PIT-1701.

5. Design Requirements
   This Chapter describes the design requirements of the PIT-1701.

6. Installation
   This Chapter describes the installation of the PIT-1701.

II. Introduction

1. Overview

The PIT-1701 Patient Infotainment terminal is Advantech's standard product with a built-in Windows XP embeded OS. In addition to the entertainment information access, Remote Monitoring/Security and Home Service functions, the Intel Celeron M 1.06GHz CPU speed and the LAN-enabled architectures can achieve an integrated Home Gateway function. The PIT-1701 equipped with a Intel Celeron 1.06GHz processor, 17" touch screen, onboard Ethernet and audio plays as the key of a home/ building security & automation solution. It connects the service / emergency calls and sensor signals of an apartment unit through the LAN to the administration center.

III. Hardware Description

1. General Specifications

- **Power adaptor:** AC/DC
  Input voltage: 100Vac~250Vac
  Output voltage: 19V @ 3.42A

- **Disk drive housing:**
  1. Space for one 2.5" HDD,

1.0 Standard PC functions

- **CPU:** Intel®Celeron M 1.06GHz

- **BIOS:** Award 256 KB Flash BIOS

- **Chipset:** Intel® 945GME + Intel®ICH-7M

- **Front side bus:** 533/667 MHz

- **2nd level cache:** On-die 1MB L2 cache for Celeron M 1.06GHz CPU

- **RAM:** One 200-pin SODIMM DDRII sockets accept 32 ~ 1000 MB DDR2 SDRAM

- **SATA interface:**
  Support one SATA connector. The SATA host controller that supports independent DMA operation on two ports and supports data transfer rates of up to 3.0Gb/s. The SATA controller contains two modes of operation-a legacy mode using I/Ospace, and an AHCImode using memory space.

• **Universal serial bus (USB) port:** Supports up to four USB ports(three on front side, one on rear side). All USB ports support USB high-speed signaling. High-speed USB 2.0 allows data transfers up to 480Mb/s. All ports are high-speed, full-speed and low-speed capable.

• **Mini PCI bus expansion slot:** Accepts one type III mini PCI bus card

• **Battery:** 3.0 V @ 195 mA lithium battery

• **Audio interface:** Microphone-in, Line-out

2.0 Mechanical Specifications

❍ Dimensions of system: 459 (W) x 401 (H) x 73 (D) mm
 -Front Cover:

 -Rear Cover:

- Dimensions of carton: 524 (W) x 567 (H) x 180 (D) mm
- Fixing System: Back Box for Wall mounting
- Gross Weight: 9.5 kg
- Net Weight: 7.3 kg

IV. Outlook View

1. Front View

2. Rear View

3. I/O Port View

V. Hardware Specification Table

Items		Specifications
CPU		Intel Celeron M 1.06GHz
Display	Panel type	TFT color LCD
	Screen Size	17" (Diagonal)
	Resolution	1,280(H) x 1024 (V)
	Luminance	300 nit (w/i TS)
	Contrast Ratio	800:1
	Backlight MTBF	50,000 hours (typ)
Memory	Working	1 GB DDR2 SDRAM
	Storage	2.5" SATA HDD 80G
Interface for User	LED	Emergency LED on both sides
Interface for System Integrator	SIM card reader	1
	Smart Card reader	1
	USB Port	4
	MIC in jack	1
Interface to the Internet	RJ-45	10/100Base T Ethernet
Embedded OS	Windows XP embeded	Yes
	Windows XP Pro	Yes
Power Comsumption		< 60W
Dimension (W x H x D)		

Weight	
Operation Temperature	
Certificates	CE Class B

VI. Software Description

1. Windows XP embeded Software Spec

Real-Time OS Kernel
- ❍ Win XP English Version

Device Drivers
- ❍ CX 5530A Control
  - ➢ PCI to ISA Bridge
  - ➢ Graphics/video support for Intel PIII 1G
  - ➢ USB host controller
  - ➢ AC97 Codec Interface
- ❍ ALC-200 Audio Codec
- ❍ RTL8139C Ethernet Controller
- ❍ Touch Screen Controller
- ❍ LCD & Backlight Control
- ❍ Video Capturing Circuit (BT878A) with GPIO ports
- ❍ PCMCIA Controller
- ❍ RS-232/422 Control & IRQ Service Routine
- ❍ ASCII Terminal Support for debugging view

Embedded Application Software
- ❍ Automatic Back-light Off
- ❍ Web Browser

VII. Design Requirements

Environmental Specifications
- Temperature & Humidity
  - ✓ Operating Temperature: 0 ~ 45 ^{o} C
  - ✓ Storage Temperature: 0 ~ 60 ^{o} C
  - ✓ Relative Humidity: 0 ~ 95% RH
    (Non-condensed)

- Case / Panel Temperature
  - ✓ Less than 40 ^{o} C @ 25 ^{o} C ambient temperature (front bezel)
  - ✓
- Safety
  - ✓ CE
  - ✓
- EMI
  - ✓ FCC class B approved
  - ✓
- Vibration:
  - ✓ 10~18Hz, 1.5mm peak-to-peak displacement
  - ✓ 18~500Hz, 1G acceleration

Reliability
- MTBF
  - ✓ 20,000 hours
- Touch Screen
  - ✓ 1 million touch actuation times on a single point with a 5/8" diameter silicon finger under a 350g load at 2 Hz

- Power Requirements
  - ✓ DC Input Voltage: 19V

✓ Power Consumption: less than 60W

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.