

Vantron_Industrial_IoT_System_and_Devices

Intelligent_HMI_and_Tablet_PC_Solution

2021

Chengdu Vantron Technology Co., Ltd.

Embedded in your success, Embedded in your better life

Leading Mobile PC Innovations for Factory Automation



Vantron's full line of x86 and ARM-based customizable industrial mobile PCs can be configured with Intel, NXP, MediaTek, Rockchip and other high-performance processors in a variety of form factors and enclosure options (accessories are all available). With a rich array of wireless connectivity options ranging from WPAN (e.g., Bluetooth, Zigbee) and WLAN (e.g., WIFI), to cellular (e.g., CAT4, CAT1, CATM) as well as private LTE (CBRS Band 48), our tablets will keep you connected anywhere, all the time.

We offer many options for enclosure, operating, and protection ratings for applications needing ruggedized, shatter-resistant mobile PCs as well as those designed specifically for outdoor viewing. Operating system choices include Windows, Linux, and Android. Various device and platform certification services, such as Google Mobile Services (GMS), are also available.



Handle



Vehicle Holder



Hand Strap



Screen Protector



Single Battery Charger

Battery Charger Array



Standalone Battery



Charging Cable

Embedded in your success, Embedded in your better life

Leading Mobile PC Innovations for Factory Automation

Vantron

Rugged tablet PC



A rugged tablet based on the Rockchip RK3288 platform with an 8-inch shatter-proof high-definition touch screen. Packaged in a rubber protection shell, the tablet supports NFC, wireless charging, and fingerprint sensor. Runs Android 7.0 operating system.

Product	VT-TABLET-5081
Processor	Rockchip RK3288 ARM Coretex-A17 Quad Core Processor, up to 1.6GHz
Memory	Standard DDR3 2GB (Optional 4GB)
Storage	EMMC Flash 32GB
Display & Touch	8" TFT LCD, 1280 x800, Capacitive Touch Screen, 10 points
Wireless	Internal 4G, WIFI, Bluetooth, GPS Module
Camera	Front camera 5M Pixels Auto Focus Camera
I/Os	1x USB2.0 OTG (Type-C), 2x 1W Speaker, 1x Headphone/MIC, 3.5mm Audio Port
Dimensions	235mm × 153mm × 21mm, Rubber outer edge for drop protection
OS	Android 7.1



The Vantron VT-TAB10RG-APLN is a rugged, high resolution, full-featured tablet PC based on Intel's Apollo Lake dual or quad-core CPU. Flexible hardware specification includes 8GB of memory and options for 512 GB SSD, GbE, WIFI, BT4.2, and 4G/LTE connectivity. Sunlight readable and anti-glare display options, wide operating temperature tolerance (-20°C-60°C) and support for wet and gloved hand operation makes this tablet perfect for various industrial applications. Supports Windows 10 IoT operating system.

Product	VT-TAB10RG-APLN
Processor	Intel Apollo Lake N3350 Dual Core Processor or N3450 Quad Core Processor
Memory	4GB (Optional 8 GB)
Storage	128GB SSD (Optional 256GB/512GB SSD)
Display & Touch	10" TFT LCD, 1280 x800, Capacitive Touch Screen, 10 points
Wireless	Internal 4G, WIFI, Bluetooth, GPS Module
Camera	Front camera 5MP, Rear camera 5MP
I/Os	2x USB 3.0, 1x HDMI, 1x Headphone/MIC, 3.5mm Audio Port
Battery	Removable battery 2 × 11.4V 1700mAh
Dimensions	293mm × 193mm × 25mm
OS	Windows 10 Enterprise 64bit

life

Leading Mobile PC Innovations for Factory Automation

Vantron

Portable Tablet PC



Product	VT-TAB10-APLKN
Processor	Intel Atom Apollo Lake N3350, 2.4GHz Dual Core/N3450, 2.2GHz Qual Core
Memory & Storage	LPDDR4 2GB (Up to 4GB) EMMC 32GB, (M.2 SSD slot, option) Micro-SD support
Display & Touch	10.1" TFT LCD, 1280 x800, Up to 3480x2160@30Hz for HDMI Capacitive Touch Screen, 10 points
Wireless	802.11 a/b/g/n/ac WLAN/BT module; 1xmini-PCIe connector supporting LTE module; SIM slot available
Camera	Front camera 5MP, Rear camera 5MP
Media	1x Headphone/MIC, 3.5mm Audio Port, 1xSpeaker, 1xHDMI
I/Os	10/100/1000M Ethernet 1xUSB3.0, 1xUSB2.0
Battery	Lithium Ion Battery, 7.4V, 5000mAh
Dimensions	262mm×184mm×16mm Rubber cover available for drop protection
OS	Windows 10 or Linux

Product	VT-TAB185-SKLU
Processor	6th Gen Intel® Core™ Skylake I3-6100U/I5-6300U/I7-6500U
Memory & Storage	DDR4 1866MHz, up to 16GB M.2 2280 SSD, 1TB
Display & Touch	10.1" TFT LCD, 1280 x800, Up to 3480x2160@30Hz for HDMI Capacitive Touch Screen, 10 points
Wireless	802.11 a/b/g/n/ac WLAN/BT module; LTE module; GPS Module
Camera	Front camera 5MP, Rear camera 5MP
Media	1x Headphone/MIC, 3.5mm Audio Port 1xSpeaker
I/Os	2xUSB3.0 (Type-A)
Battery	Lithium Ion Battery, 15.2V, 3800mAh
Dimensions	284mm× 472mm ×15mm
OS	Windows 10 or Linux

Product	VT-TAB10-RK68H
Processor	Rockchip RK3368H, ARM Cortex-A53 Octa-Core processor 1.2GHz/1.5GHz, GPU:600Mhz
Memory & Storage	LPDDR3 4GB EMMC 16GB (Optional 32GB)
Display & Touch	10.1" TFT LCD, 1280 x800, Capacitive Touch Screen, 10 points
Wireless	802.11 a/b/g/n/ac WLAN/BT module; LTE module, NFC
Camera	Front camera 5MP, Rear camera 5MP
Media	1x Headphone/MIC, 3.5mm Audio Port 1xSpeaker
I/Os	1x micro-USB OTG
Battery	Lithium Ion Battery, 7.4V, 5000mAh
Dimensions	255mm ×158.4mm ×12.9mm
OS	Android 10

Leading HMI Solutions for Factory Automation



Available up to 43", Vantron's all-in-one displays are cost-effective solutions for applications where more than a simple display device is desired. By combining compute, protocol routing capabilities with displays, our all-in-one products can be customized to handle simple interactive tasks to data analytics at the edge.

With customer-friendly features such as high brightness, high resolution, multi-touch touch screen, all supported by a flexible platform with a wide range of connectivity options (including cellular), processor and OS options, Vantron is ready to customize a display to fit your exact requirements.

Vantron's engagement philosophy focuses on developing a long term, win-win relationship with our customers by providing a high degree of customization at a reasonable upfront cost and reduced logistical barrier.

Leading HMI Solutions for Factory Automation

Vantron



The Vantron VT-HMI156-RK99 is a cost-effective All-In-One 15.6 inch Wall-Mounted touchable display panel.

The versatile Vantron VT-HMI156-RK99 15.6 inch Wall-Mounted touch display is powered by Rockchip's highest performance RK3399 processor with 6 cores. Equipped with a 10-point touch capacitive touch, Full-HD LCD, this All-In-One unit supports WIFI 802.11b/g/n/ac, Bluetooth 4.2, along with wired interfaces such as USB Type-C, USB Type-A, and RJ45 Ethernet. POE is also available as an option. Supports Android 9 with SDK available.

Product	VT-HMI156-RK99
Processor	Rockchip RK3399, ARM Cortex-A53 + Cortex-A72 processor
Memory & Storage	LPDDR3 2GB (Up to 4GB) EMMC 16GB, (Up to 32GB)
Display & Touch	15.6" TFT LCD, 1920 x1080, Capacitive Touch Screen, 10 points
Wireless	WLAN/BT module; 1xmini-PCIe connector
Camera	Front camera 5MP
Media	1x Headphone/MIC, 3.5mm Audio Port, 1xSpeaker
I/Os	1/10/100M Ethernet with PoE 1xUSB3.0 Type-C, 2xUSB2.0 Type-A
Power	DC 12V/2A or PoE power in
Dimensions	395mm x250mm x35mm
OS	Android 9 or Linux

The Vantron VT-PNL series are cost-effective wall-mounted touch display panels specifically designed for industrial HMI applications.

With Full-HD (1920x1080) resolution and capacitive touch screen, I/Os on this panel includes VGA, HDMI, USB and Audio ports. Mounting hardware is optional. The panels have internal storage, and can support multiple wireless communication modules including 802.11 a/b/g/n/ac, Bluetooth 5.0 and 4G/LTE modules.

Input voltage is 12V DC, and supports various OS such as Windows, Android or Linux.

Product	VT-PNL12/15/18.5/21/27/32/43
Processor	Intel ATOM Baytrail E3827/3845 Dual/Quad Core Rockchip RK3288 Cortex-A17 Quad Core Rockchip RK3399 Cortex-A72 + Cortex-A53
Memory & Storage	DDR3 2GB (Up to 8GB) EMMC 32GB (ARM) or SSD 64GB (x86)
Display & Touch	Multi-size TFT LCD, 1920 x1080, Capacitive Touch Screen, 10 points
Wireless	802.11 a/b/g/n/ac WLAN/BT module; LTE module
Camera	Front camera 5MP
Media	1x Headphone/MIC, 3.5mm Audio Port, 2xSpeaker
I/Os	10/100/1000M Ethernet 1xMicro-USB OTG, 2xUSB2.0 Type-A VGA, HDMI
Power	DC 12V/2A
Dimensions	540.8mm x 332.26 mmx 37.2 mm, VESA on the back side.
OS	Android 9 or Linux or Windows (x86)

Leading HMI Solutions for Factory Automation

Box Modules + Panel Modules



VT-IPC-RK88 is a low-power industrial computer independently developed by Chengdu Vantron Technology Co., Ltd. to meet the challenges of today's market. It combines wireless cellular network, routing technology and industrial computer technology. VT-IPC-RK88 is powered by 1.8 GHz Rockchip RK3288 ARM-A17 high-performance processor, which ensures high computing power for various applications. It supports 4K×2K video display, H.264/H.265 video codec and HDMI 2.0@60Hz output, which delivers smooth and powerful video experience for multi-media players. VT-IPC-RK88 contains 6 USB, 4 RS232, 2 RS232/RS485, video output, audio and other interfaces in various forms. VT-IPC-RK88 can be connected with a code scanner, printer, camera, keyboard, mouse, infrared screen, LCD screen, etc., freeing you from the lack of interfaces. It runs Android 10 OS and provides related API and development documents, making it easier for customers to use and develop applications.

Product	VT-IPC-RK88
Processor	Rockchip RK3288 ARM-A17, Quad Core 1.8 GHz
Memory & Storage	LPDDR3 2GB (Up to 4GB) EMMC 16GB, (Up to 128GB) Support Class10 TF card, up to 128GB
Display & Touch	4 lines eDP output, 8 lines LVDS output
Wireless	WLAN/BT module; 1xmini-PCIe connector
Media	1x Headphone/MIC, 3.5mm Audio Port Support 5W speaker 1xHDMI 1x MIPI CSI-2 for camera
I/Os	1/10/100M Ethernet 4xRS212, 2xRS485/232, 6xUSB2.0 Type-A, 1xUSB Type-C OTG
Power	DC 12V/24V
Dimensions	220mm ×145mm ×42mm
OS	Android 10 or Linux

Vantron



VT-DISP12
12.1 XGA

VT-DISP15
15.6 XGA

VT-DISP18
18.5 FHD



VT-DISP21
21.5 FHD

VT-DISP27
27 FHD



VT-DISP32
32 FHD



VT-DISP43
43 FHD

ded in your success, Embedded in your better life

Vantron Building Blocks

Ubiquitous Platforms

Vantron

X86

INTEL ATOM

Tunnel Creek – E620/640/660/680
Cedar Trail – N2600/2800
Baytrail – E3815/3827/3845
Apollo Lake– E3930/3940/3950/E3350/E3450
Elkhart Lake - NEW

INTEL CORE

Ivy Bridge – I3/I5/I7
Haswell – I3/I5/I7
Skylake – I3/I5/I7/E3
Tiger Lake – I3/I5/I7 - NEW

ARM

TI

MCU – Cortex-M3/M4/M7
ARM9 – AM1808
Cortex-A8 – AM37xx/AM335x

NXP/FREESCALE

Cortex-A8 – iMX53
Cortex-A9 – iMX6
Cortex-A53/A72 – iMX8 - NEW

ROCKCHIP

Cortex-A7 – RK3126
Cortex-A53 – RK3368
Cortex-A17 – RK3288
Cortex-A53+A72 – RK3399
Cortex-A55 – RK3568 - NEW

MEDIATEK

Cortex-A53 –
MT8362/MT8365/MT8788 - NEW

OS



Ubuntu
Fedora
Yocto
Linux+QT
VantronOS



Android 4.0 ~ 11
GMS



Windows XP
Windows 7
Windows 8
Windows 10
Windows 10 IoT
Windows 10 Pro
Windows Embedded

Embedded in your success, Embedded in your better life



Enterprise Go

Bring your own device is welcomed, set up work environment to securely contain work data.

Always Up-to-Date

Comprehensive OTA management, easy but everything is visible and under control.

Kiosk Mode

Lock down devices to one or more apps/webpages. Run apps in background for required services.

Zero-effort Enrollment

Device can be connected manually or automatically, deploy devices in bulk is possible.

Everything to Group

OTA, push content, install app, everything is designed for the group of devices.

Keep Secured

Everything is under NDA. Public cloud or on-premise deployment.

OEM/ODM Tablet PC Case Study 1/4



- Band 48 (CBRS) cellular module allows the prison to operate on its own cellular network (intrinsically secure with no need for WIFI)
- Better signal coverage than WIFI
- Timeline to market (design to production) 9 months
- Usage 100k/year
- Extremely ruggedized tablet
- Contains: Music, Movies, Educational software and video conferencing
- CBRS Ruggedized tablet enables a use case where the Family of the inmate can pay for airtime rather than the taxpayer
- Can be connected and managed by BlueSphere IoT Platform

OEM/ODM Tablet PC Case Study 2/4



- Homes security application
- Integrates 8 different antennas (allowing for this device to pair with IOT enabled devices all around the house)
 - Garage
 - Front door
 - Back yard

OEM/ODM Tablet PC Case Study 3/4



- Customized 7" Display
- Complex engineering effort to diffuse LED through glass
- Office room signage
 - Automated effort to limit the number of people per meeting
 - Social distancing



- Embedded in your success, Embedded in your better life



Thank you