DEPTRUM
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Deptrum® A20 Palm-vein Smart Tablet Terminal Product Specification

V1.0 · 2026/10/22

Revision History

Version	Description	Date	Revised by
V1.0	Official release	2026.10.22	Yan Qizhan

1 Usage Guidelines

To keep the device in optimal condition and extend its service life, read this specification carefully before use and observe the following precautions:

- Observe all warnings marked on the device;
- Keep the device away from environments prone to electromagnetic interference or static electricity;
- Use the power adapter supplied with the device;
- Do not share the same AC outlet with high-power appliances or devices that may cause voltage fluctuations;
- Avoid using the device in direct sunlight or near heat sources, cooking fumes, dust or corrosive gases;
- If liquid spills onto the device, disconnect the power immediately and wipe it dry with a dry cloth;
- Do not push any object into the enclosure through its openings; electric shock or short circuit may otherwise occur;
- Clean the device surface regularly. Before cleaning, turn off the power switch, unplug the power cord and wipe with a slightly damp soft cloth;

- Place the power adapter and power cord properly so that the cord is not stepped on or pulled, which could cause the device to fall and be damaged;
- Check the clock accuracy after each power-on. If there is a large deviation (e.g. more than 5 minutes), correct the time before use; otherwise data may be corrupted;
- If the device will not be used for a long time, clean it, keep it tidy and dry, put the device, accessories and user manual back into the original package and store it in a ventilated, dry place;
- Do not disassemble the product by yourself; otherwise the device may be damaged, data may be lost, or electric shock and other hazards may occur. Contact your service provider for repair;
- During installation, installers are advised to wear gloves to avoid scratching the screen;
- If any other abnormality occurs during use, record the device status in detail and contact your service provider.

2 Product Overview

The A20 is an 8-inch palm-vein smart screen terminal designed for meeting rooms, offices, residential buildings, canteens and similar scenarios. The device integrates a high-precision palm module supporting palm-print and palm-vein recognition, and is powered by the RK3568 quad-core Cortex-A55 high-performance processor.

The device supports palm-scan, card and QR-code identity verification and payment, provides Wi-Fi and Ethernet connectivity, and offers relay and RS485 interfaces for peripheral linkage.

2.1 Applications

- Meeting rooms
- Offices
- Residential buildings
- Canteens

3 Product Features

3.1 Fast Recognition

Palm-scan recognition takes only 600 ms on average, meeting the efficiency requirements of canteens. In self-service ordering mode, counter staff no longer need to calculate totals mentally or key amounts into the card reader, which reduces human error and speeds up serving.

3.2 Payment Security

Equipped with a palm module that supports palm-vein recognition, ensuring uniqueness and resistance to attacks. No card needs to be carried, reducing the risk of card loss and fraud.

3.3 High Performance

Powered by the RK3568 quad-core Cortex-A55 high-performance chip, delivering fast and smooth recognition and transaction processing.

3.4 Privacy Protection

Unlike face recognition, palm-print does not disclose personal privacy, making it easier for users and the market to accept.

3.5 OTA Upgrade

In addition to local upgrades via OTG and USB flash drive, the device also supports batch upgrades over the network, which simplifies the upgrade and maintenance of a large number of devices.

3.6 Automatic Clock Calibration

The device periodically synchronizes its clock with the backend server, keeping the clock error within the allowed range and effectively preventing data corruption caused by clock desynchronization.

4 Core Specifications

A20 Palm-vein Smart Tablet Terminal Core Specifications		
General Specifications	Device Dimensions	265 × 126.6 × 25.5 mm (main body)
	Device Weight	Approx. 1000 g (main unit)
	Power Input	12 V DC, 3 A max.
	Rated Power	15 W, 30 W max.
	Installation	Wall mounting (bracket included); pole mounting (floor stand optional)
Display & Touch	Display	8-inch, 250 cd/m² brightness, 800 × 1280 @ 60 fps
	Touch Screen	Multi-point capacitive touch, G+G
System & Storage	CPU	Quad-core 2.0 GHz Cortex-A55, RK3568 platform
	Memory	2 GB LPDDR3
	Storage	32 GB eMMC
	Operating System	Android 13
	RTC Battery	Coin cell, service life > 2 years
	Built-in speaker	Standard output: 2 W / 8 Ω rated per channel
Network & Wireless	Ethernet	10/100 Mbps Base-T auto-negotiation, RJ45
	Wi-Fi	2.4 G / 5 G，802.11 a/b/g/n/ac
	Bluetooth	BT 4.2（BR/EDR + BLE）
Recognition & Card	Contactless Card Reading	Reading distance > 3 cm; 13.56 MHz;

A20 Palm-vein Smart Tablet Terminal Core Specifications		
Reading		ISO/IEC 14443A/B and ISO 15693; supports Mifare S50/70, UltraLight, PlusCPU, CPU cards, etc.
	Palm-scan Distance	6 ~ 15 cm
	Recognition Time	600 ms for on-device recognition, 1.2 s for cloud recognition (excluding transaction time)
	QR-code Distance	3 ~ 12 cm (supports payment and refund QR codes)
	Palm-scan Angle	Pitch ⩽ 30°, roll ⩽ 30°, yaw ⩽ 180°
	Recognition Rate	> 98%
	Palm-scan Illuminance	Indoor and semi-outdoor, 0 ~ 50,000 lux
External Interfaces	USB	USB 2.0 Type-A × 1
	Network Interface	RJ45 × 1
	Relay Interface	White / yellow / purple wires
	RS485 Interface	Black-white / blue-white / red-white wires
	Power Interface	DC5521，12 V 3 A
Operating Environment	Operating Temperature	Max. range -10 ℃ ~ +50 ℃; recommended 0 °C ~ +40 °C
	Operating Humidity	Max. range 10% ~ 85% RH; recommended 10% ~ 80% RH (non-condensing)

5 Product Appearance

5.1 Device Front View



Device front view

5.2 Device Side View



Device side view

6 External Interface Description

6.1 Interface Description

Interface	Qty	Description
USB 2.0 Type-A	1	Connect external USB devices
RJ45 Ethernet	1	10/100 Mbps auto-negotiation

Interface	Qty	Description
Relay Interface	1 set	White / yellow / purple wires, used for gate opening and similar control
RS485 Interface	1 channel	Black-white / blue-white / red-white wires
DC Power Interface	1	DC5521，12 V 3 A

7 Product Packaging

Packaging quantity and box accessories are not provided in the source document; to be confirmed.

8 Troubleshooting

The following table lists common symptoms together with the corresponding checks and solutions for reference. It does not cover every possible fault, but provides a starting point for preliminary diagnosis.

Symptom	Solution
Device does not power on	1. Check that the power outlet is properly connected; 2. Check that the power switch is turned on
No network access or intermittent connection	1. Check that the network cable is properly connected; 2. Check the quality of the network cable and of the cabling;
Card reading failure	Run the built-in device test tool to identify the fault
Palm not recognized	1. Check that the palm module is working properly; 2. Check whether the screen protective film has been removed

9 Warranty

During the warranty period, the supplier shall provide free repair service for any non-human-caused failure of the product.

The following cases are not covered by the free warranty:

(1) Failure or damage caused by incorrect or improper use, maintenance or storage, such as cracking, corrosion or damage of the product or its parts resulting from improper handling, dropping, excessive external force, contact with or exposure to unsuitable temperatures, water immersion or damp environments;

(2) Failure or damage caused by repair, modification or disassembly by an organization or person not authorized by the supplier;

(3) Failure to install the device in accordance with the supplier's product manual or installation video (including but not limited to any non-standard operation such as drilling that may affect the quality or performance of the device);

(4) Failure or damage caused by force majeure or accidents;

(5) Other failure or damage not caused by the quality of the product itself.

Apart from the cases excluded above, the supplier shall repair the product free of charge within 15 working days after receiving the product mailed by the customer, and mail the repaired product back to the customer immediately; each party shall bear its own shipping costs.

For cases not covered by the free warranty, the corresponding repair and shipping costs shall be borne by the customer.

10 Disclaimer

The device application information and other similar content in this specification are provided for your convenience only and may be superseded by updated information. It is your responsibility to ensure that applications comply with the technical specifications.

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11 Technical Support

You can obtain support through the following channels:

- Email support: send your questions to support@deptrum.com
- FAE support: contact our sales representatives for the FAE contact details