EQIO

HJG-A1810

PRODUCT MANUAL

10.1-inch Portable Rugged Display Tablet

Rugged notebook and tablet · Industrial inspection · Field operations



Appearance reference (generated from product photos); shipped units may differ.

Measurement and control, made easy.

EQIO.COM

Easy · Quick · Input · Output

01 OVERVIEW

10.1-inch Portable Rugged Display Tablet

Rugged notebook and tablet · Industrial inspection · Field operations · Field survey · Rockchip

HJG-A1810 uses RK3568 4-core processor, configured with 4GB LPDDR4 and 64GB eMMC, equipped with 10.1-inchIPS touch display, supports Wi-Fi, Bluetooth, 4G and multi module satellite positioning, suited to industrial inspection and field operations.
Housing integrates USB, Type-C, HDMI, TF and SIM I/O, can removal battery facilitates shift rotation. High-brightness display and multi type wireless connect suited to field information view, equipment inspection and data entry, expansion port can per peripheral connection method selection. Suited to mobile operation.



Multi-angle reference (generated from product photos); shipped units may differ.

Key features

- RK3568 4-core platform
- 10.1-inch 700cd/㎡touchscreen
- 4GB memory, 64GB eMMC
- Wi-Fi, Bluetooth 5.0 and 4G
- Can removal 10000mAh battery

Applications

Industrial inspection

Field operations

Field survey

02 FUNCTIONS

Functions and engineering value

High-brightness touch and field input

10.1-inchIPS display uses 800 × 1280 resolution, 700cd/㎡brightness and ten point capacitor touch, together with 7H glass field view and touch input provides conditions. RK3568, 4GB memory and 64GB eMMC hosts terminal application, UI should per resolution and installation direction combined layout.

Wireless communications and multi module positioning

Dual frequency Wi-Fi, Bluetooth 5.0 and 4G supports mobile communications, GPS, Glonass and BeiDou tri-mode positioning used for location related application. Option NFC supports specified card read protocol, actual communications band, operation network, positioning behaviour and card compatible must according to deployment site and application confirm.

Can battery swap pool and I/O selection

Can removal 3.8V/10000mAh battery facilitates rotation, USB2.0, Type-C, HDMI, TF and SIM provides common connect. Expansion I/O USB2.0, 100M RJ45 and RS-232 in one of three, peripherals requirement should first determine, not can 3 option all treated as at the same time has.

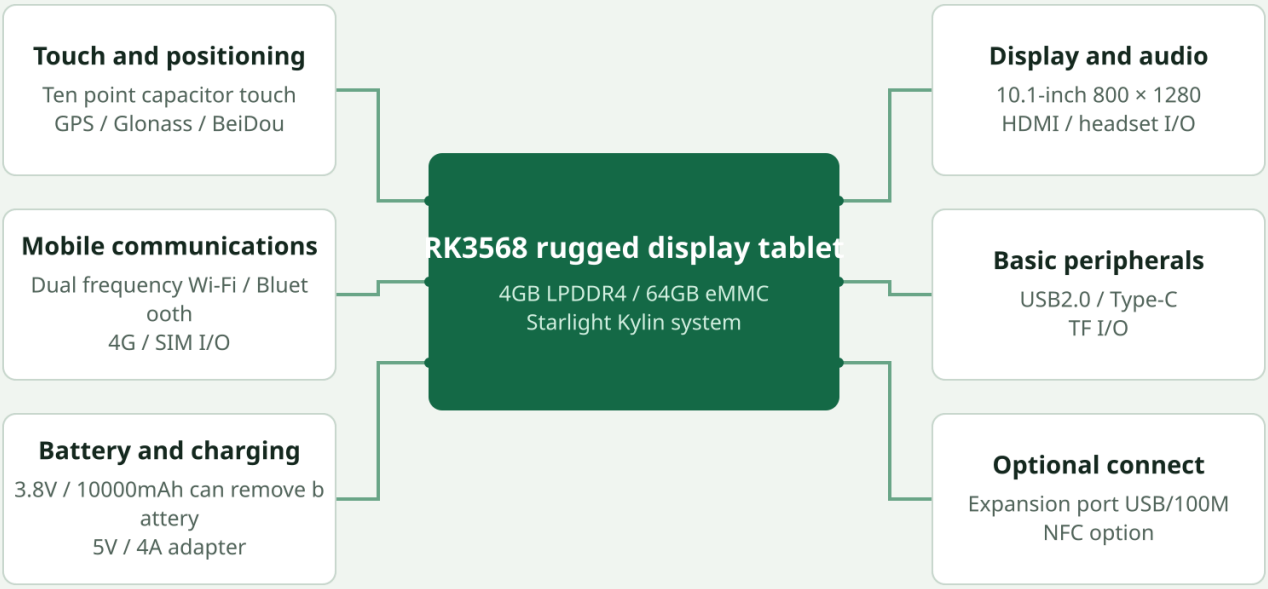
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

HJG-A1810



Functional relationships · lines do not show internal circuits, pins or dedicated bus topology

From published specification illustrative functional grouping, does not show internal circuits, on-board bus or signal routing; I/O direction actual protocol shall prevail. Expansion port one of three and NFC all per configured with confirm, not represent all at the same time standard.

Platform and I/O

Uses RK3568 4-core Cortex-A55, up to 2.0GHz, product configured with 4GB LPDDR4 and 64GB eMMC. Device profile lists Mali-G52 2EE and rated 1 TOPS NPU etc.capability; these is not the same as tablet application already enable acceleration function, terminal starlight Kylin system and actual driver shall prevail.

> **Reading the diagram**
>
> Solid lines show published functional relationships, not on-board buses, bridge chips or connector pins. Optional controllers, radios, storage and software follow the configuration and interface files.

04 SPECIFICATIONS

Technical specifications

Compiled from published product data. Batch, I/O and environmental ratings follow the order confirmation.

Core system

Processor	RK3568 4-core, clock up to can up to 2.0GHz
Capacity	4GB LPDDR4 + 64GB EMMC
Operating system	Starlight Kylin
Display	10.1-inchIPS, resolution 800 × 1280, brightness 700 CD/M2, 10 point capacitor G+G touch, 7H hard glass, COF process

Mechanical specifications and system requirements

Dimensions / weight	Dimensions 274.9mm × 188.7mm × 22.2mm, weight 1028, material PC+TPU
Environmental ratings	Operating temperature: -20°C ~ 60°C, storage temperature: -30°C ~ 70°C, 95%non-condensing
Battery	Can remove polymer lithium-ion battery, 3.8V/10000MAH, 8-9 hours (50%volume/brightness 1080P) power adapter: AC100V-240V, 50HZ/60HZ, output DC5V/4A, 6 grade EU adapter (10 type 5V/4A straight)

I/O and expansion

I/O basic I/O	USB2.0 × 1, Type-c × 1, 3.5mm standard headset I/O × 1, TF × 1, SIM card × 1, power I/O × 1, HDMI × 1 extend I/O one of three: USB2.0 / 100M RJ45 Ethernet port / RS-232 serial
Wireless network	Dual frequency WiFi 802.11 a/b/g/n/ac (2.4G+5G), Bluetooth 5.0 4G all-network: GSM, WCDMA, FDD-LTE, TDD-LTE multi band covers
Option NFC (MFC)	ST21NFC chip, supports ISO14443A protocol, card read distance 3-5cm
Satellite positioning	GPS+Glonass + BeiDou tri-mode positioning, high capture sensitivity, cold start＜50s, warm start＜5s

05 COMPONENTS

Processor and device specifications

Device figures come from vendor publications and describe the chip or module. The implemented product follows the specification tables. Optional devices are supplied with the selected configuration.

Rockchip RK3568

CPU structure	4-core Arm Cortex-A55
CPU up to frequency	2.0 GHz
GPU	Arm Mali-G52 2EE
Graphics/compute API	OpenGL ES 3.2；Vulkan 1.1；OpenCL 2.0
NPU published rated	1 TOPS
Memory type capability	LPDDR4/LPDDR4X/DDR4/DDR3/DDR3L/LPDDR3; supports ECC capability
Video decode	H.265/H.264/VP9, up to 4K@60fps
Video encode	H.264/H.265, up to 1080p@60fps
ISP	8MP, supports HDR
Display output capability	Multi display; eDP/HDMI2.0/MIPI/LVDS/24bit RGB/EBC
High-speed I/O capability	USB3.0 × 2, SATA3.0 × 3, PCIe2.1/QSGMII; PCIe3.0 optional 1 × 2lane or 2 × 1lane

Sources: Rockchip, Rockchip RK3568 official product specification.

06 GALLERY

Appearance and scene

Reference views



Product appearance reference; shipped units may differ.

Scene



Application illustration (not a product photo).

07 APPLICATIONS

From product capability to applications

Industrial inspection log

Touch display can used for fill in inspection log, view equipment data or show field graphics, 4G and Wi-Fi compatible application application provides networked method. Requires near distance card read when optional NFC and verification card protocol, location information and log on transmit logic from inspection software implements.

Equipment field operations

Per maintenance equipment selection RS-232, 100 Mb Ethernet or extra USB I/O version, used tablet run parameters view and maintenance log application. HDMI can external display equipment, TF can together with data storage solution; I/O selection and starlight Kylin system driver should purchasing front stated.

Field work information terminal

High-brightness panel, multi module satellite positioning and can removal battery can used for operation point information view and log, mobile communications depends on to local network covers. Data in 8–9 hours runtime base to specific volume, brightness and video conditions, field positioning, networked and application load required separately test.

Integration checks

Expansion port	USB2.0, 100M RJ45, RS-232 one of three, per maintenance equipment in advance selection.
Communications and card read	Check 4G band, SIM, positioning antenna conditions and option NFC card protocol.
Application adapts	Confirm starlight Kylin system application, touch, peripherals and positioning I/O supports.
Runtime aperture	8–9 hours should 50%volume/brightness playback 1080P video, application runtime separately measured.

08 CONFIGURATION

Configuration, options and selection

Configuration

Expansion port optional select USB2.0, 100 Mb Ethernet or RS-232, and provides NFC option solution.

Selection guide

Order confirmation	Batch, I/O and environmental ratings follow the order confirmation
Published data	Compiled from published product data; EQIO provides selection and system integration
Configuration talk	Share the application, I/O count, environment and software so a configuration can be proposed

Request a quotation and selection support

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EQIO

Easy · Quick · Input · Output

BRAND

Measurement and control, made easy.



EQIO product family · concept rendering

Brand story

EQIO builds measurement and control products and systems. The name stands for Easy Quick Input Output: Easy is a clear structure that is quick to learn, Quick is a direct path to efficient delivery, and Input / Output is every link between the device under test and the control system.
The soft single-cycle wave inside the Q links the brand to signals, acquisition and I/O. “Measurement and control, made easy” is our promise for every selection, integration and delivery.

What we do

Products

Data acquisition, test instruments, control and I/O, modular platforms, software, cables

Systems

Configured to the measurand, channels, accuracy and software, from design to commissioning

Support

Selection advice, training, maintenance and calibration

How we deliver

01
Requirements

02
Solution design

03
Build & integration

04
Factory test

05
Delivery & training

06
Ongoing support

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