EQIO

WJ-T10HA

PRODUCT MANUAL

10.1-inch High-Performance Wearable Control Terminal

Dual Rockchip RK3588M 8-core processor



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

Measurement and control, made easy.

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Easy · Quick · Input · Output

01 OVERVIEW

10.1-inch High-Performance Wearable Control Terminal

Control terminal · Mobile control · Field data acquisition · Edge inference · Rockchip

WJ-T10HA uses dual Rockchip RK3588M and dual Atlas 200 heterogeneous compute architecture, each main processor configured with 16GB memory and 256GB storage, equipped with touch display and BeiDou positioning function, suited to mobile control, field data processing and edge inference integrates.
Dual Gigabit Ethernet, RS-422, Type-C and Micro HDMI centralized connect communications, display and payload equipment, microphone air and audio output meets field HMI requires. Portable structure suited to inspection, equipment control and multi sensing data processing.



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

Key features

- Dual RK3588M and dual Atlas 200
- Each main processor 16GB memory, 256GB storage
- Touch display and programmable keys
- Dual Gigabit Ethernet and RS-422
- BeiDou positioning and audio input output

02 FUNCTIONS

Functions and engineering value

Dual heterogeneous compute resources

Product configured with 2 RK3588M main processor and 2 Atlas 200 series AI processing module, each main processor should 16GB memory and 256GB storage. Can used for organize multi task processing and inference application, task assign, model supports and processing call method from software solution implements.

Display control and field HMI

Touch display together with programmable keys provides local operation ingress, microphone air recording and audio loudspeaker can used for field HMI. BeiDou positioning function can application provides location related information, receive environment, antenna installation and application used method required and equipment deployment together confirm.

Payload I/O and mobile power

Dual Gigabit Ethernet, RS-422 circular connector, 2 Type-C and Micro HDMI connect communications, payload and display equipment. Uses 12V DC power, source data battery runtime full charge playback 1080P video more than two hours, inference or multi peripherals load under required separately verification.

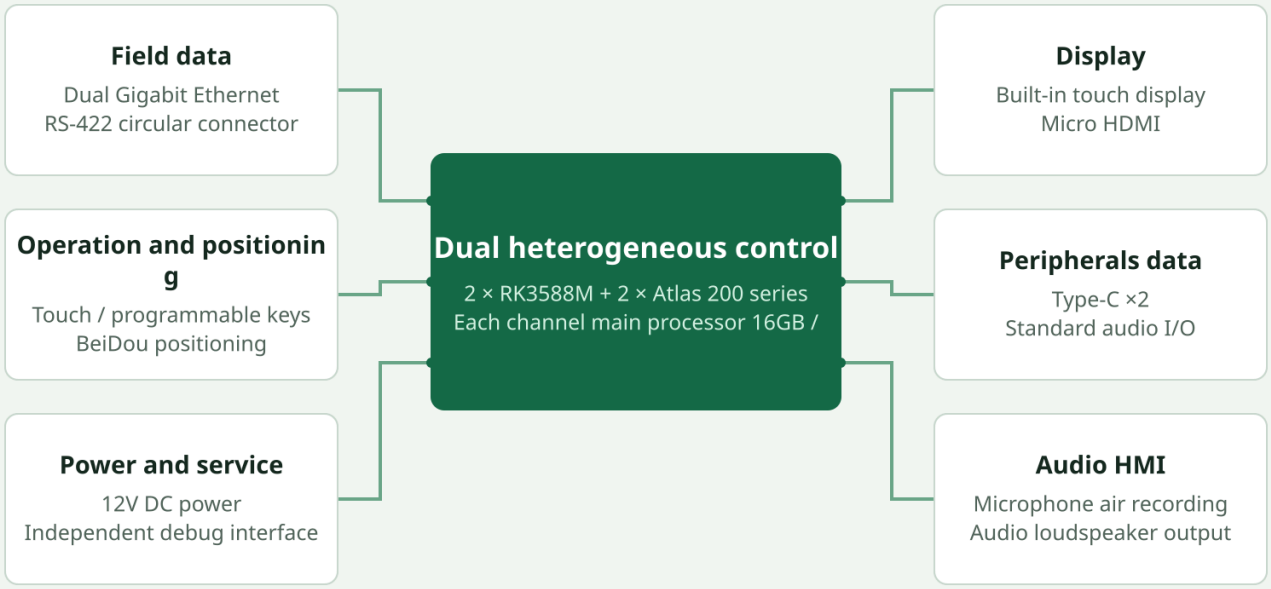
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

WJ-T10HA



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. Dual main processor and AI module internal interconnect not published data in definition.

Platform and I/O

Uses dual RK3588M and dual Atlas 200 series module, each RK3588M rated 16GB memory and 256GB storage. RK3588M device profile lists 8-core structure and 6 TOPS NPU rated capability; Atlas specific model and interconnect not stated, not cannot from this collect total product peak compute.

> **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	2 × Rockchip RK3588M 8-core main processor + 2 × Atlas 200 series AI processing module
Capacity	Each RK3588M rated capacity 16GB+256GB
Operating system	Can supports Ubuntu, UnionTech etc.operating system
Display and touch	BOE N40, has touch function, sunlight readable

Mechanical specifications and system requirements

Dimensions / weight	Long: 352mm±1.5mm, wide: 216mm±1.5mm, weight: ≤2kg (only bare unit)
Environmental ratings	Operating temperature: -40°C~55°C, storage temperature: -45°C~60°C, 20%~80%RH, allow error±5%RH
Battery	12V DC power, full charge pure battery mode under playback 1080P video continuous operation duration＞2h

I/O and expansion

Control peripherals	Power circular connector I/O*1, serial 422 circular connector*1, Type-C I/O*2, standard 3.5mm audio I/O*1 standard MicroHDMI I/O*1, Gigabit Ethernet*2, debug interface*1, multi-channel programmable keys*1
Audio	Supports microphone air recording function, supports audio loudspeaker output
Positioning	Supports BeiDou positioning function (search time 2 minutes internal, satellite search quantity not less than 8)

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 RK3588M

Process	8 nm
CPU structure	4 × Cortex-A76 + 4 × Cortex-A55, 8-core
NPU rated	6 TOPS
SoC display engine capability	8K display/video, native seven display display capability
SoC native Type-C controller	2-ch
SoC imaging processing resources	Dual 16M ISP, at least 12-ch camera supports

Sources: Rockchip, Rockchip release RK3588M intelligent vehicle-mounted surround view solution.

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

Mobile edge inference node

Can field data attach and operation display deployment RK3588M side, adapts rear inference task handed to Atlas module processing, forms mobile compute operation end. Dual network facilitates connect data source and application network, but internal interconnect and compute uses method required via software and production unit verification.

Multi sensing equipment field control

RS-422 and dual Gigabit Ethernet can attach uses should protocol equipment, touch and programmable keys provides local HMI ingress. BeiDou positioning, recording and loudspeaker can together with field task software used, suited to inspection or payload bring-up in at the same time processing multi type information operation method.

Portable data acquisition workstation

12V power and bare unit no more than 2kg specification suited to mobile deployment, Type-C can expansion data peripherals, Micro HDMI facilitates external display. Acquisition, log and inference can per task split to corresponding resources, continuous operation time required according to peripherals power consumption and algorithm load evaluate.

Integration checks

AI module version	Confirm Atlas 200 specific model, software run environment and supports model format.
Resources assign	Each RK3588M 16GB+256GB, not assume shared memory or compute directly add.
Power budget	Per 12V input and complete task load verification runtime, video test value not can replace application runtime.
Peripherals and environment	Check RS-422 circular connector, dual Ethernet port, BeiDou antenna and -40–55°Crun conditions.

08 CONFIGURATION

Configuration, options and selection

Configuration

Uses 12V DC power, provides Ubuntu and UnionTech system supports.

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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