EQIO

WJ-G15HT

PRODUCT MANUAL

15.6-inch Triple-Display Portable Ground Control Station

Intel Core i9-13900H



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

Measurement and control, made easy.

EQIO.COM

Easy · Quick · Input · Output

01 OVERVIEW

15.6-inch Triple-Display Portable Ground Control Station

Ground control station · Multi source information display · Equipment task management · Mobile measurement and control · Intel

WJ-G15HT integrates 3 15.6-inch display, uses Intel Core i9-13900H compute platform, provides RTX GPU and display specification option, equipped with ruggedized keyboard, touch mouse and replaceable joystick, facilitates multi video parallel display and mobile measurement and control. Dual Gigabit Ethernet, serial, USB and HDMI facilitates connect field equipment and external display unit, built-in lithium battery supports mobile used. Triple display can assign control UI, video and status video, suited to multi task inspection and field measurement and control.



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

Key features

- 3 15.6-inch Full HD display
- Core i9-13900H processor
- 32GB memory and 256GB storage
- Can removal replace joystick
- Ruggedized keyboard, touch mouse and dual speaker unit

02 FUNCTIONS

Functions and engineering value

Triple display task display

3 15.6-inch 1920 × 1080 LCD display control, video and equipment status provides independent display area, ruggedized keyboard and touch mouse responsible for text this and pointer input. Can removal replace joystick facilitates per operation practice configured with, display content from application and display settings organize.

Compute platform and configured with selection

Core i9-13900H platform standard 32GB memory and 256GB storage, supports Windows 11. RTX4070/4090 Laptop and RTX3080 series GPU option, 17 and 21.5-inch display also option, must separately confirm product specification.

Portable communications and battery power

Dual Gigabit Ethernet, dual COM, USB2.0 and USB3.0 connect field equipment, HDMI used for external display, I/O can per solution select circular connector. Built-in 12000mAh/11.1V lithium battery and uses DC19V adapter input, suited to required multiple operation point between move task.

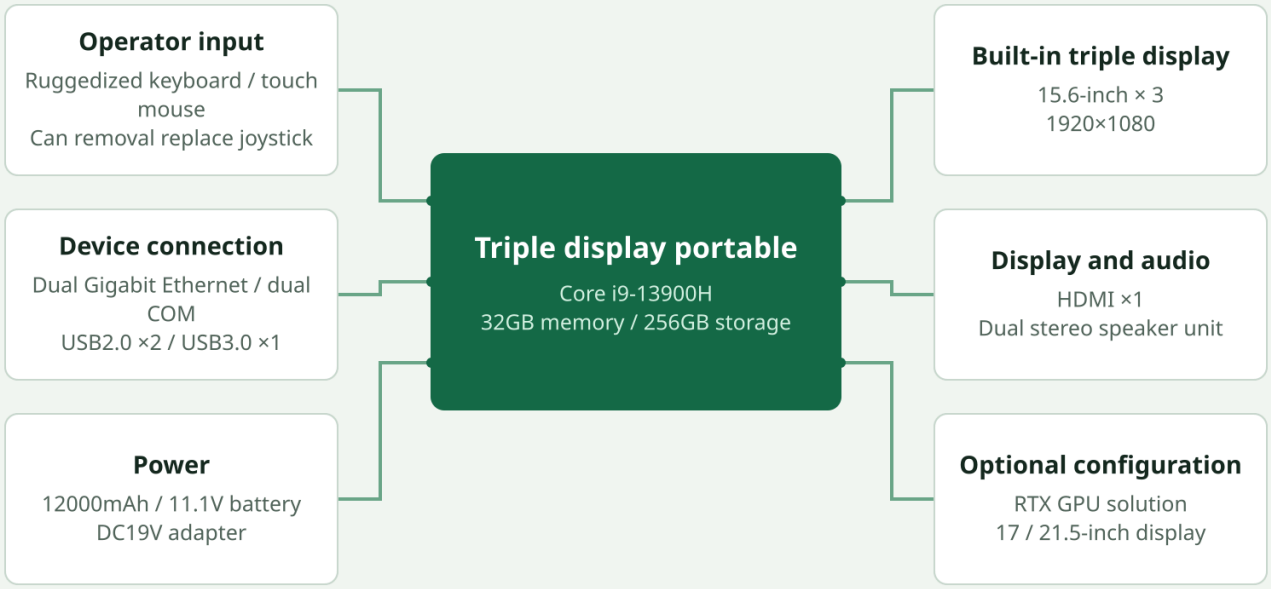
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

WJ-G15HT



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. Display and GPU option different product configured with, not combined and default standard.

Platform and I/O

Uses Core i9-13900H, 14-core20 threads, up to turbo 5.4GHz, standard 32GB memory and 256GB storage. Optional RTX4070 Laptop 8GB or RTX4090 Laptop 16GB etc.GPU; each GPU specification only suited used for should option version, product compute and power consumption must follow configured with verification.

> **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	Intel Core i9-13900H, 14-core (6 performance core+8 efficiency cores), 20 threads, up to turbo 5.4GHz
Capacity	Standard 32GB+256GB
Display and touch	15.6-inch LCD display × 3,resolution 1920 × 1080 triple display display (17/21.5-inch optional)
AI compute module	Optional GeForce RTX4070 Laptop GPU (8GB) / RTX4090 Laptop GPU (16GB) / RTX3080 series
Operating system	Supports Windows11 operating system

I/O and expansion

I/O	Gigabit Ethernet × 2 / USB2.0 × 2 / COM × 2 / USB3.0 × 1 / HDMI × 1 (optional configured circular connector)
Speaker unit/keyboard	2 stereo speaker unit, ruggedized keyboard, equipped with touch mouse

Mechanical specifications and system requirements

Dimensions / weight	Dimensions≤412mm × 312mm × 90mm (long × wide × high, ±2mm, not including feet, handle etc.), weight ≤12Kg colour: olive drab / ice grey / sand yellow / black
Battery	Built-in intelligent lithium battery 12000mAh/11.1V, power input DC19V (adapter)
Joystick	Can removal replace joystick
Operating temperature	-20°C~55°C

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.

Intel i9-13900H

Micro architecture codename	Raptor Lake
Manufacturing process	Intel 7
CPU core number	14
Performance core count amount	6
Efficiency cores quantity	8
CPU threads number	20
Up to turbo	5.40 GHz
Performance core up to turbo	5.40 GHz
Efficiency cores up to turbo	4.10 GHz
Shared cache	24 MB Intel® Smart Cache
Processor basic power	45 W

Intel i9-13900H (continued)

Maximum turbo power	115 W
CPU memory controller capacity upper limit	96 GB
CPU memory controller supports type	DDR5-5200, DDR4-3200, LPDDR5/x-6400, LPDDR4x-4267 (each up to rate, MT/s)
Memory channel number	2
CPU ECC supports	Not supports
Integrates graphics unit	Intel® Iris® Xe Graphics eligible
IGPU up to dynamic frequency	1.50 GHz
IGPU actuation unit	96

05 COMPONENTS

Processor and device specifications (continued)

Intel i9-13900H (continued)

Chip supports display quantity upper limit	4
Chip display output protocol	eDP 1.4b, DP 1.4a, HDMI 2.1
Processor PCIe version	Gen 5
PCH side PCIe version	Gen 3
CPU PCIe channel upper limit	28
Package	FCBGA1744
Package dimensions	50 mm x 25 mm
VT-x virtualization	Supports
VT-d directional I/O virtualization	Supports

Intel i9-13900H (continued)

Quick Sync video acceleration	Supports
Command width	64-bit

NVIDIA GeForce RTX 4070 Laptop GPU

GPU architecture	Ada Lovelace
CUDA core number	4608
Standard GPU memory	8GB GDDR6
GPU memory bit width	128-bit
Boost range	1230–2175MHz
GPU system power range	35–115W
GPU PCIe generation	Gen4
Encoder	8 generation NVENC, supports AV1 en code

05 COMPONENTS

Processor and device specifications (continued)

NVIDIA GeForce RTX 4070 Laptop GPU (continued)

CUDA compute capability	8.9

NVIDIA GeForce RTX 4090 Laptop GPU

GPU architecture	Ada Lovelace
CUDA core number	9728
Standard GPU memory	16GB GDDR6
GPU memory bit width	256-bit
Boost range	1455–2040MHz
GPU system power range	80–150W
GPU PCIe generation	Gen4
Encoder	2 × 8 generation NVENC, supports AV1 en code
CUDA compute capability	8.9

Sources: Intel, Intel i9-13900H Processor Specifications; NVIDIA, GeForce RTX 40 Series Laptop GPU comparison.

06 GALLERY

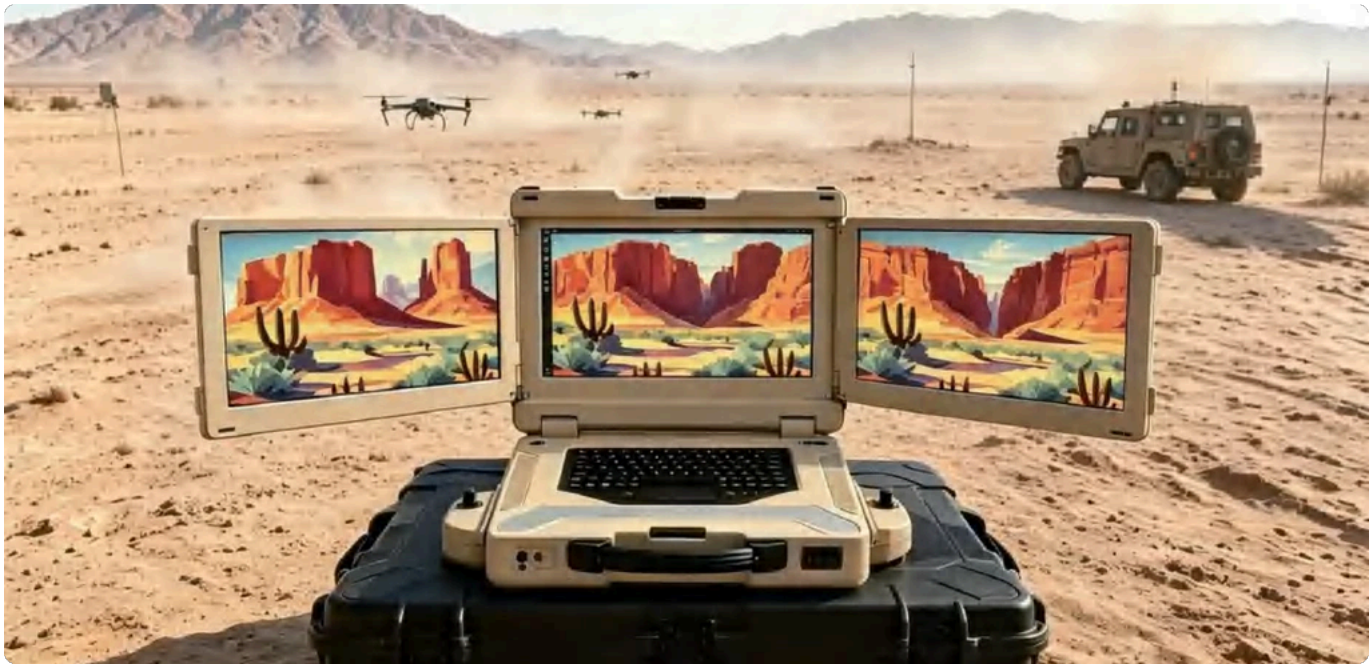
Appearance and scene

Reference views



Product appearance reference; shipped units may differ.

Scene



Application illustration (not a product photo).

07 APPLICATIONS

From product capability to applications

Multi source information task management

Triple display can respectively present operator UI, equipment status and live video, use task information zone clearer; dual network and COM used for interface with should protocol equipment. The used method depends on application software aggregation data, not should treat triple display quantity etc.same to any video channel count or processing capability.

Mobile measurement and control and field bring-up

Keyboard, touch mouse and can replace joystick combination portable operation unit, via USB, serial and network connect measurement and control equipment. Built-in battery facilitates temporary move position, 256GB standard storage whether meets log and data retain, should per task data amount and operation duration check.

Graphics task workstation

Multi-display used for at the same time view graphics, model UI and run status, per application requirement selection should RTX GPU version. GPU memory, driver and acceleration software compatible must and option model together confirm; if change to more large display, also requires again evaluate product weight, power and portable use space.

Integration checks

Display version	15.6-inch main specification, 17/21.5-inch option required re-core dimensions, weight and power.
GPU solution	RTX4070 Laptop 8GB, 4090 Laptop 16GB etc. Per single one option version confirm.
I/O and control	Stated circular connector option, COM electrical standard and replaceable joystick I/O and mapping.
Storage and runtime	Check 32GB+256GB whether meets task, and measured triple display and GPU load under runtime.

08 CONFIGURATION

Configuration, options and selection

Configuration

Provides 17 or 21.5-inch display and RTX GPU solution, I/O optional configured circular connector form.

Display	15.6 / 17 / 21.5-inch; 15.6-inch this item data main specification, other dimensions optional
GPU	RTX4070m 8G / RTX4090m 16G / RTX3080 etc.

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

Email lyping@eqio.com Phone +86 182 8191 2988
Web eqio.com

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

Email lyping@eqio.com Phone +86 182 8191 2988 Web EQIO.COM