

LPC-D238 Series is a mission-critical Panel PC powered by Intel® 14th Gen processors and secured with NIST-approved Post-Quantum Cryptography (FIPS 203/204/205). Certified to MIL-STD-810H, 461G, 1275E, and 704F, it features a 1000-nit sunlight-readable display, 3840*2160 4K Resolution, Rugged D38999 connectors, and -40°C to 60°C "Cold Start" capability. This system delivers uncompromised reliability for naval, airborne, and ground vehicle command operations.



Product Highlights - Advantages and Benefits

- ▶ **PQC-Proof Quantum Security (Optional by Customer Request)** : Integrates NIST FIPS 203/204/205 compliant Post-Quantum Cryptography (PQC) to protect sensitive data against "Harvest Now, Decrypt Later" threats.
- ▶ **Military-Grade Certification** : Compliant with MIL-STD-704F, MIL-STD-1275E, and MIL-STD-461G for EMC/EMI compliance, as well as MIL-STD-810H for shock and vibration resilience.
- ▶ **Extreme Environment Reliability** : Engineered for -40°C to 60°C environments with "Cold Start" technology, enabling immediate system boot-up in freezing conditions.
- ▶ **Superior Outdoor Readability**: Equipped with a 1000-nit ultra-bright display, optical bonding, and anti-glare technology for crystal-clear visibility under direct sunlight.
- ▶ **Enhanced Durability and Resistance** : The full metal chassis and tempered cover glass provides superior mechanical strength, offering exceptional protection against physical damage, high-impact forces, and heavy vibrations common in industrial settings.
- ▶ **Secure Connectivity**: D38999/D26482 military connectors for all I/Os. Prevent accidental cable disconnection.
- ▶ **Stable Supply**: 10-year longevity support and proactive notification of EOL.

Specifications

System	
CPU	Intel Gen. 14th Core i3/ i5/ i7 up to 35W Processors
System Memory	2 x 262-pin SO-DIMM DDR5 4800/5600 MHz , up to 96GB (48GB per DIMM)
External I/O Port	1 x USB by D38999 Connector 1 x 2.5 GbE LAN by D38999 Connector 1 x HDMI by D38999 Connector 1 x COM Port (RS-232/422/485) by D38999 Connector 1 x DC Power Input by MIL-DTL-26482 Receptacle MS3114E8-4P 1 x Power Button 1 x GND Screw for Safety Grounding

LPC-D238 Series

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System

Storage	1 x M.2 (Key M, 2242/2280) with PCIe Gen3 x4 for SSD 2 x External 2.5" Storage Bay
Operation System	Windows 10 (64-bit) Windows 11 (64-bit) Linux Yocto (64-bit, by request)
Expansion	1 x M.2 (Key E, 2230) for Optional Wireless Module 1 x M.2 (Key B, 3042/3052) with SIM Slot for Optional 4G/5G Module
OSD	5-key OSD including Power key and Function keys

LCD

Display Type	23.8" TFT LCD
Max. Resolution	3840*2160 (4K)
Contrast Ratio	1000 : 1
Max. Color	1.07B
Luminance (cd/m2)	1000 nits
View Angle	89/89/89/89

Environment

Power Input	DC 9~36V, 120W Power Input with MIL-STD-461G/1275E/704F Compliant
Dimension	640.4(W) x 412.4(H) x 128.7(D) mm (Not include Handle 50mm Depth)
Weight	Net Weight: 15.0 kg
Mounting	Flush Mount
Cerfitication	EMC • MIL-STD-461G Compliant (CE101/CE102/RE101/RE102) • MIL-STD-1275E Compliant • MIL-STD-704F Compliant • FCC / CE Class A Certified Vibration • MIL-STD-810H, Method 514.8, Procedure I • IEC-60068-2-64, 1.5 Grms @10~500Hz Shock • MIL-STD-810H, Method 516.8, Procedure I, 20g 11ms
Operating Temp	-40~60 °C, Cold Start
Storage Temp	-40~70°C
Humidity	10~95% @40 °C, non-condensing

Ordering Information

LPC-D238	23.8" 3840*2160 4K resolution, P-cap Defense Panel PC with Intel® Gen. 14th 35W LGA1700 CPU, AG, IP65 Front side, 1x USB 3.0, 1x 2.5GbE LAN, 1x COM, 1x HDMI and DC 9~36V Power Input , -40~60°C (Cold Start)
LPC-D238-QS	23.8" 3840*2160 4K resolution P-cap Defense Panel PC with Intel® Gen. 14th 35W LGA1700 CPU, AG, IP65 Front side, 1x USB 3.0, 1x 2.5GbE LAN, 1x COM, 1x HDMI and DC 9~36V Power Input , -40~70°C (Cold Start) with NIST approved PQC security software development kit

Dimension & I/O Connector

