

7STARLAKE



ROC280 SERIES

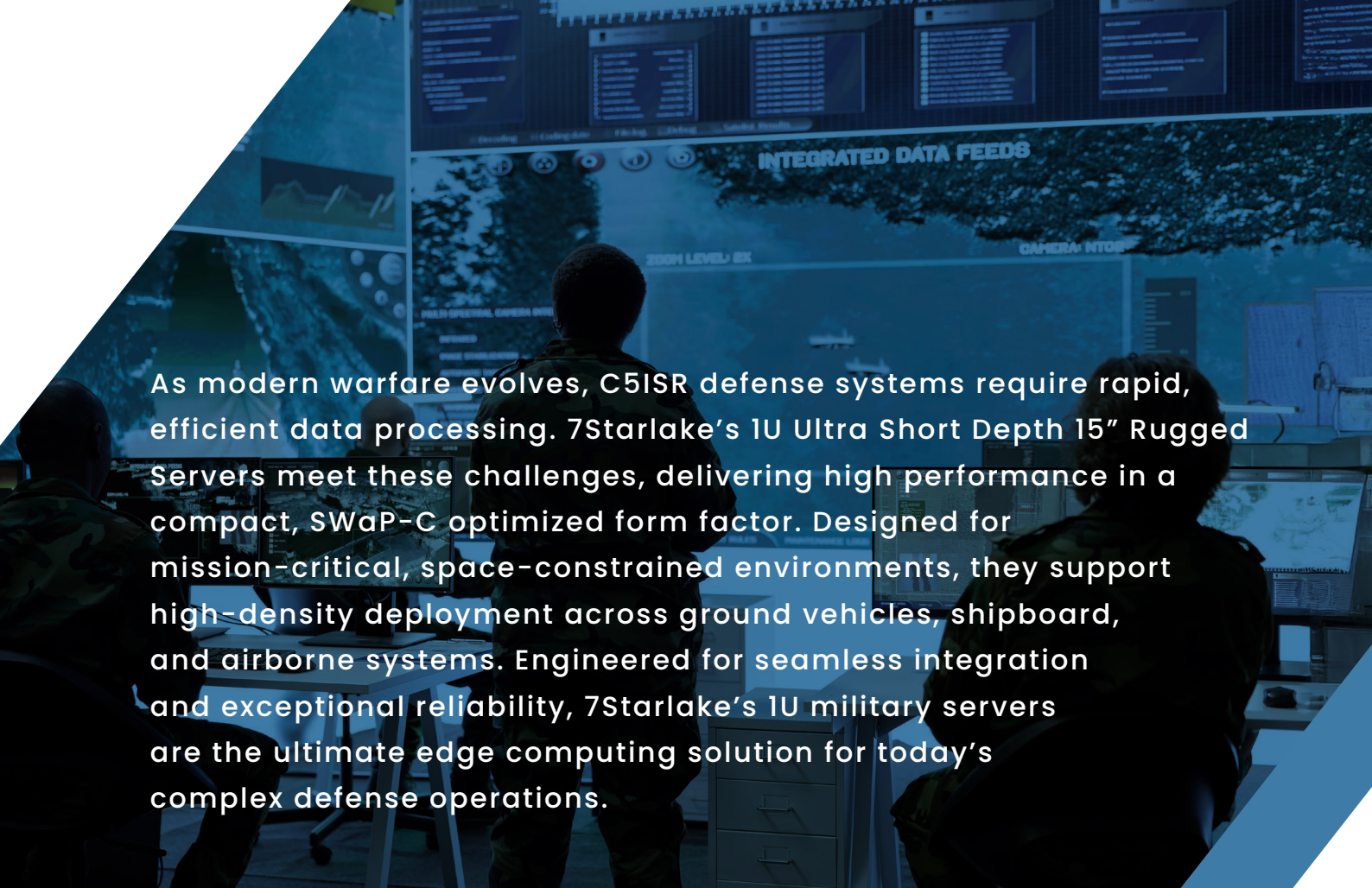
1U ULTRA SHORT DEPTH MILITARY FANLESS SERVERS



- Intel® 13/14th Core™ i7-13700TE
- Removable Rugged SSD
- Hardware Secure Erase
- Extended Temperature -20°C to 60°C
- MIL-STD-461/810
- TEMPEST LEVEL A
- FIPS 140-3 Security

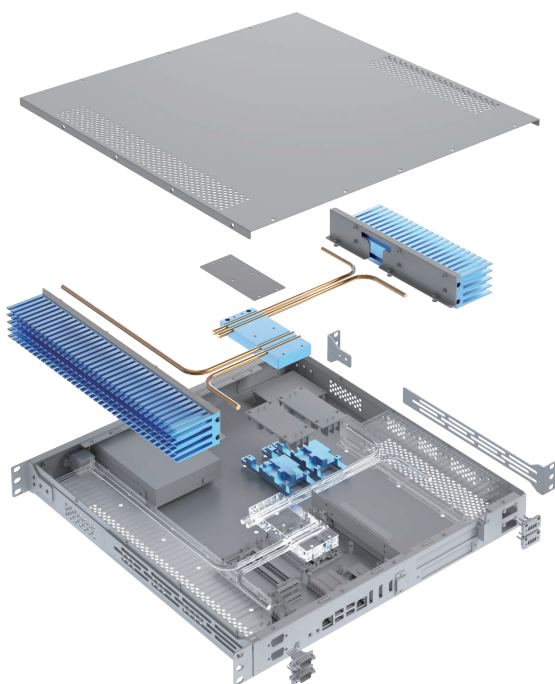


intel
partner Gold
IoT
Solutions



As modern warfare evolves, C5ISR defense systems require rapid, efficient data processing. 7Starlake's 1U Ultra Short Depth 15" Rugged Servers meet these challenges, delivering high performance in a compact, SWaP-C optimized form factor. Designed for mission-critical, space-constrained environments, they support high-density deployment across ground vehicles, shipboard, and airborne systems. Engineered for seamless integration and exceptional reliability, 7Starlake's 1U military servers are the ultimate edge computing solution for today's complex defense operations.

TEMPEST Level A for Emission Security



In cybersecurity-focused projects, seamless integration of cyber diode solutions into proprietary systems is essential. 7Starlake's 1U Military ROC280 Servers, built on a robust architecture, support this integration while meeting TEMPEST SDIP-27 NATO Level A requirements. Leveraging advanced expertise in electromagnetic compatibility (EMC), the ROC280 servers deliver secure and reliable performance in harsh environments.



MIL-STD-461 EMI Filter | 18V–36V Input



The ROC280 Ultra Short Depth Servers offer robust protection against voltage surges, spikes, transients, and electromagnetic interference. Engineered for high-stakes military and naval applications, they deliver exceptional durability and reliable performance in demanding environments.

MIL-STD-461 CE102 basic curve, 10kHz – 30 MHz

MIL-STD-461 RE102-4, (1.5 MHz) – 30 MHz – 5 GHz

MIL-STD-461 RS103, 1.5 MHz – 5 GHz, 50 V/m equal for all frequencies

MIL-STD-810 | Extreme Environment Ready



The rugged design of the ROC280 ensures exceptional performance in the most challenging environments, withstanding unpredictable terrain, vibration, sudden shocks, and extreme temperatures, guaranteeing outstanding stability and reliability under harsh conditions.

Method 501.5, Procedure I (Storage/High Temperature)

Method 501.5, Procedure II (Operation/High Temperature)

Method 502.5, Procedure I (Storage/Low Temperature)

Method 502.5, Procedure II (Operation/Low Temperature)

Method 503.5, Procedure I (Temperature shock)

Method 507.5, Procedure II (Temperature & Humidity)

Method 514.6, Vibration Category 24/Non-Operating (Category 20 & 24, Vibration)

Method 514.6, Vibration Category 20/Operating (Category 20 & 24, Vibration)

Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock)

Method 516.6, Shock-Procedure I Operating (Mechanical Shock)

Hardware Security Erase

AES Encryption



In emergencies that require immediate data erasure, the Secure Erase Button offers Instant Erase for Self-Encrypting Drives (SEDs), delivering superior speed and security compared to traditional Quick Erase methods.

FIPS 140-3 Standards



The ROC280 rugged servers meet the stringent requirements of FIPS 140-3 for cryptographic modules, aligned with ISO/IEC 19790:2012. They provide robust hardware-based cryptographic protection to support secure handling of sensitive data. Built for resilience against security threats, the ROC280 is suitable for deployment in federal systems, critical infrastructure, and other high-assurance environments.



Exclusive Protection Cap

- 1 Open the Protection cap
- 2 Press button to destroy the SSD AES key
- 3 Data/partition becomes unrecognizable

Dual Removable SSD with Anti-drop Protection

The dual removable SSD enables quick and easy swapping for maintenance and replacement. This compact, self-contained storage solution ensures reliable data storage and retrieval. To further enhance operational safety, 7STARLAKE has developed a unique anti-drop protection feature that prevents the SSD from falling out during training or machine operation.



Swappable CMOS Battery

To exchange the battery from a rugged computer could be complicated and might affect the water and dust resistance function. The easy swappable battery tray in ROC280 allows users to directly replace the new battery. Simply pull out the tray, change the battery, push the tray back, and lock the screw.



Specifications

ROC280-MG

ROC280-MA



| | | Intel 14 th /13 th Raptor Lake-S/R | Intel 14 th /13 th Raptor Lake-S/R |
|------------------|-----------------------|----------------------------------------------------------|----------------------------------------------------------|
| CPU | | i7-14701TE/ I9-13900TE | i7-14701TE/ I9-13900TE |
| Memory | | DDR5- 64GB | DDR5- 64GB |
| Chipset | | Q670E | Q670E |
| Security | TPM | TPM 2.0 | TPM 2.0 |
| Storage | SATA 3.0 | 1 x D38999 | 1 x D38999 |
| | | Easy swap tray | Easy swap tray |
| | NVMe (M.2 2280) | 1 x M12(2 x USB2.0) | 1 x D38999(2 x USB2.0) |
| PSU | Power input | 18~36 DC | 12V~36V Redundant DC |
| | D38999 | 1 | 1 |
| Expansions | Hardware Secure Erase | 1 | N/A |
| | 1 x M.2 2230 (E) | 1 | 1 |
| | 1 x M.2 3042 (B) | 1 | 1 |
| I/O | LAN | 3 x 2.5GbE RJ45 | 3 x 2.5GbE RJ45 |
| | Display Port | 2 | 2 |
| | HDMI | 2 | 2 |
| | Audio | 1 x MIC, 1 x Line-Out | 1 x MIC, 1 x Line-Out |
| | USB 3.1 | 6 x USB 3.1 | 6 x USB 3.1 |
| | USB 2.0 | 2 x USB 3.0 | 2 x USB 2.0 |
| Thermal Type | | Fanless Conduction Cooled | Rugged Air Cooled |
| Dimension(WxDxH) | | 430 x 380 x 44 mm | 430 x 380 x 44 mm |

This datasheet is for marketing purposes only and does not constitute a warranty. All specifications, dimensions, and data are subject to change without notice. For the latest specifications and updates, please contact your 7STARLAKE representative.



Contact us



7STARLAKE Co., Ltd.

14325 Willard Road Unit K Chantilly VA 20151, United States



Taiwan Office

2F., No.190, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City 23146, Taiwan



press@7starlake.com

More Information



7STARLAKE.COM