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AI and Resilience: Five ICT Hardware Technology Trends to Watch in 2026

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Core research focus on ICT industry trends, including shift in the geopolitical landscape and its impact on the industry. He has years' experience in research and analysis for the mobile communications industry, focusing on smart city applications, mobile communication technologies, mobile handheld devices, and competitive analysis. Edward leads or has led several government research projects concerning integrated ICT applications, telecom platforms, communications industry chain integration and applications, smart handheld devices, smart city applications, smart display applications, etc. He also engages in syndicated research and custom consulting engagements, delivering strategic advice and recommendations for business clients.

ICT hardware growth toward 2026 is being reshaped by two structural forces: generative AI and resilience.

Together, they are shifting demand away from consumer markets toward enterprise and government procurement, fundamentally changing where growth occurs and how hardware systems are designed.

This brief explains why five hardware domains—AI servers, AI boxes, AI smart glasses, drones, and LEO satellites—are experiencing sustained growth, and why this growth is structurally durable rather than cyclical. It serves as an analytical extension of previously identified "top technology trends," [12] translating headline growth projections into clear demand drivers and strategic implications.

1. AI Servers: Cloud CAPEX and Sovereign AI Drive Scale

AI infrastructure investment continues to accelerate, driven by hyperscale cloud providers and emerging sovereign AI initiatives. Global cloud service providers and AI platforms are committing hundreds of

billions of USD in AI server CAPEX.

- By 2026, global server shipments are projected to reach ~15 million units, with AI servers accounting for ~30% (≈4.5 million units).
- Demand is shifting toward rack-level, high-density architectures, increasing requirements for advanced cooling and power systems.

With Taiwanese manufacturers accounting for ~90% of global server shipments, this transition materially expands opportunities across both systems and key components.

2. AI Boxes: Edge AI Moves into Scaled Deployment

AI inference is increasingly shifting from cloud to edge as security, latency, and deployment control become critical considerations for enterprises. Improvements in edge AI chips and the availability of smaller AI models enable local inference.

- AI-enabled industrial PCs (AI Boxes) are projected to reach ~20% penetration by 2026.
- Demand is driven primarily by vertical applications such as manufacturing, healthcare, transportation, and energy.

Edge AI adoption reflects enterprise demand for data control and operational autonomy, not just cost reduction.

3. AI Smart Glasses: From Experimentation to Mass Market

AI smart glasses are transitioning from niche, experimental products toward early mass-market wearables. Clearer use cases and declining component costs are accelerating adoption.

- The maturity of low-power chips, sensors, and optical modules supports scalable production.
- Global shipments are projected to reach ~9.5 million units by 2026.

Smart glasses are emerging as a practical AI interface, signaling the next phase of AI-human interaction hardware.

4. Drones: Defense Demand Anchors a USD 25 Billion Market

Unlike consumer-facing technologies, drone demand is policy-driven and structurally long-term, anchored by defense budgets rather than market cycles. Governments are building standing drone forces, not conducting one-off procurement.

- Taiwan plans to procure 48,750 drones between 2026 and 2027.
- The global military drone market is projected to reach USD 25 billion by 2026.

This policy-backed demand creates durable growth conditions and reinforces the strategic importance of secure, non-red supply chains.

5. LEO Satellites: From Backup Connectivity to Strategic Infrastructure

LEO satellites are evolving from auxiliary solutions into strategic infrastructure for broadband resilience.

- Commercial LEO satellites in orbit are projected to reach ~11,650 units by 2026.
- Global LEO broadband subscriptions are expected to exceed 10 million users.

Policy support is accelerating this transition. Programs such as the U.S. BEAD initiative explicitly recognize satellite connectivity as part of national broadband resilience, elevating LEO systems from niche solutions to core infrastructure assets.

Taiwan's Strategic Position

Taiwan's advantage across these domains is not product-specific—it is ecosystem-level. The industry excels where system integration, reliability, and customization converge.

- In AI servers, Taiwan benefits from the shift toward dense, rack-scale systems.
- In AI boxes, existing industrial platforms are being upgraded with AI acceleration.
- In drones, policy-backed non-red supply chains strengthen export credibility.
- In LEO satellites, precision manufacturing and communications expertise support both commercial and resilience-driven deployments.

Taiwan as a Strategic Partner

Across these five domains, growth is structural, not cyclical. Capital expenditure, defense planning, and public policy—not consumer sentiment—are setting the trajectory.

As AI capability and resilience become strategic priorities, global enterprises need partners that can translate complex requirements into scalable systems. Taiwan's ICT sector is positioned not just as a supplier, but as a co-developer of next-generation infrastructure—making it a strategic partner in the 2026 hardware landscape.

1. *The 2026 Top Technology Trends — Part I (2025).* Available at: https://www.linkedin.com/feed/update/urn:li:activity:7407706260688605184 (Accessed: 2026/1/15)
2. *The 2026 Top Technology Trends — Part II (2025).* Available at: https://www.linkedin.com/feed/update/urn:li:activity:7409155898306265088 (Accessed: 2026/1/15)