

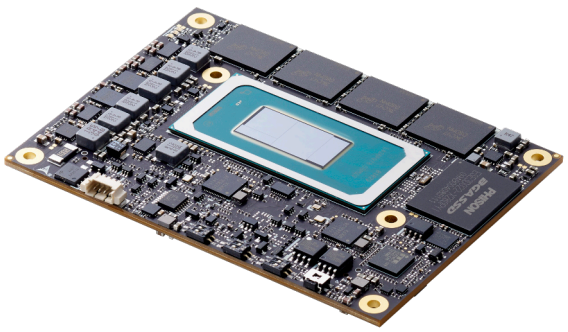
SOLVING THE THERMAL-PERFORMANCE PARADOX IN VISION ASSISTIVE DEVICES

A COM-HPC Mini Deployment Case Study

EXECUTIVE SUMMARY

A leading North American assistive technology manufacturer successfully deployed ADLINK's COM-HPC Mini module to overcome critical thermal and supply chain challenges in their next-generation vision support platform.

Through close collaboration with ADLINK's San Jose Design Center (SJDC)—which provided expert guidance in navigating to the optimal platform architecture—the customer achieved passive cooling operation with sustained high performance, reduced time-to-market by 4+ months and maintained <0.5% field failure rates across deployed units while significantly reducing energy consumption compared to active cooling alternatives.



November 2025

TECHNICAL CASE STUDY

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Key Results at a Glance

- Eliminated thermal throttling under peak image processing loads
- Achieved 7+ year product lifecycle support commitment—reducing electronic waste
- Scaled from pilot (1,000 units) to volume production (100,000+ potential) with consistent quality
- Accelerated engineering cycles through pre-validated thermal designs and expert platform selection guidance
- Reduced operational power consumption by approximately 25% versus fan-cooled alternatives

Customer Profile

Industry: Assistive Technology — Vision Support Solutions

Region: North America

Challenge: Delivering desktop-class vision processing in portable, silent, energy-efficient devices

Solution: ADLINK COM-HPC Mini with SJDC engineering support and platform optimization consulting

THE CHALLENGE

When Compact Design Meets Intensive Image Processing

Vision assistive devices demand real-time image processing, AI-enhanced object recognition, and instant visual feedback—all within form factors small enough for portable, daily use. For engineers designing these solutions, the challenge is acute: how do you deliver desktop-class performance in a handheld device without thermal throttling or compromising reliability—while also maximizing battery life through efficient power management?

Customer Requirements

A leading North American assistive technology manufacturer faced this exact paradox with their next-generation vision support platform:

Performance Requirements:

- High-performance image processing for real-time magnification and enhancement
- AI/ML capabilities for scene recognition and text-to-speech conversion
- Sufficient compute headroom for future feature expansion

Design Constraints:

- Silent, passive cooling operation for portable use
- Compact form factor suitable for handheld devices
- All-day reliability in a user-friendly package with maximum battery efficiency

Business Requirements:

- Flexible production volumes (pilot to mass production)
- Long-term component availability (7+ years) to minimize product obsolescence and environmental impact
- Fast time-to-market to maintain competitive advantage

The Problem with Traditional Solutions

Traditional embedded computing modules forced uncomfortable compromises:

High-Performance Options: Generated excessive heat in compact enclosures, requiring fans or larger chassis that compromised portability and consumed more power

Low-Power Alternatives: Couldn't handle real-time vision processing workloads, resulting in lag and poor user experience

Custom SoC Designs: Required 18+ month development cycles and created supply chain vulnerabilities

The customer needed expert guidance to identify a solution that could deliver uncompromised performance in a compact, thermally-efficient package—with the engineering support to optimize it for their specific application and sustainability goals

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

THE SOLUTION

COM-HPC Mini: Performance Density Meets Thermal Efficiency

Through collaborative consultation with ADLINK's SJDC team, the customer identified the ADLINK COM-HPC Mini (95 × 70 mm) as the optimal platform architecture to resolve these constraints. This guided platform selection process ensured the module's design philosophy aligned perfectly with the customer's needs for high performance, compact mechanical design, and energy efficiency.

Technical Specifications

Form Factor and Physical Design

- Dimensions: 95 × 70 mm (credit card size)
- Weight: Lightweight design for portable applications
- Mounting: Standard COM-HPC mounting holes for flexible integration

Performance and Processing

- Processor Support: Latest Intel processors with up to 107W TDP
- Compute Capability: Real-time computer vision and AI inference at the edge
- Memory: High-bandwidth DDR4/DDR5 support for image processing workloads

Power & Thermal Management

- Power Input: 8–20V wide range for flexible power supply design
- Thermal Design: Optimized for passive cooling operation with proper heatsink design—maximizing performance per watt
- Power Efficiency: Intelligent power management for extended battery operation and improved environmental footprint

Connectivity and I/O

- Display Interfaces: Multiple DisplayPort outputs for high-resolution displays
- Camera Interfaces: MIPI-CSI support for direct camera connectivity
- Expansion: PCIe lanes for additional I/O or acceleration
- USB: Multiple USB 3.x ports for peripherals and connectivity

Reliability and Longevity

- Operating Temperature: -40°C to 85°C (extended temperature option)
- Lifecycle: 7+ year availability commitment—supporting sustainable product design
- Quality: Industrial-grade components and rigorous testing

Why COM-HPC Mini Fits the Application

Thermal Architecture: Unlike monolithic SoC solutions, the COM-HPC Mini's modular design separates high-heat components from the carrier board, enabling more effective thermal management in compact enclosures with lower overall power consumption.

Standardized Interface: The COM-HPC standard means the customer's carrier board investment is protected across multiple processor generations, reducing long-term R&D costs and minimizing electronic waste from redesigns.

Proven Ecosystem: Extensive validation in similar vision applications provided confidence in thermal performance and reliability.

Energy Efficiency by Design: Purpose-built thermal management enables optimal performance-per-watt ratios, extending battery life in portable applications and reducing operational costs in always-on deployments.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



THE ENGINEERING PARTNERSHIP

Beyond Spec Sheets: SJDC Collaboration Model

What differentiated this deployment wasn't just the module specifications—it was ADLINK's San Jose Design Center (SJDC) collaboration approach. Rather than simply shipping modules, ADLINK's engineering team provided consultative guidance to navigate platform decisions and became an active partner in solving the customer's thermal and integration challenges.

Phase 1:

Thermal Characterization (DVT Stage)

Timeline: Weeks 1-6 of development

Objective: Validate passive cooling operation in the customer's enclosure design while optimizing for energy efficiency

Activities

Working directly with the customer's thermal engineers, ADLINK's SJDC team conducted:

Thermal Simulation:

- CFD (Computational Fluid Dynamics) modeling of the customer's enclosure
- Heat distribution analysis under various workload scenarios
- Identification of thermal hotspots and optimization opportunities

BIOS Tuning:

- Custom BIOS parameter optimization for the specific vision workload
- CPU performance curve adjustments for sustained operation
- Power limit tuning to balance performance and thermal envelope— maximizing useful work per watt of power consumed

Validation Testing:

- Real-world thermal testing with customer's actual use cases
- Extended soak testing under peak load conditions v
- Verification of passive cooling operation across the operating temperature range

Engineering Impact

Result: Eliminated thermal throttling under peak image processing loads, ensuring a consistent user experience with approximately 25% lower power consumption than fan-cooled alternatives.

Technical Achievement: Maintained CPU performance within 95% of maximum for sustained vision processing workloads without active cooling.

Business Value: Avoided costly redesign cycles and maintained compact form factor critical for user acceptance while achieving sustainability targets for battery life and energy efficiency.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Phase 2:

Supply Chain Risk Mitigation

Timeline: Concurrent with development and production ramp

Objective: Ensure predictable component availability and delivery

ADLINK's Approach

Fast-Tracked Sampling:

- DVT samples delivered within 2 weeks of specification
- PVT units provided ahead of schedule for validation
- Production-intent modules available for pilot testing

Transparent Communication:

- Weekly lead time updates during component shortage periods
- Proactive notification of any potential supply constraints
- Collaborative forecasting to align production schedules

Flexible Order Quantities:

- Supported pilot program with 1,000+ unit orders
- Scaled to volume production (20,000+ units) without quality degradation
- Maintained consistent pricing across volume tiers

Business Impact

Result: Reduced time-to-market by 4+ months vs. alternative module suppliers.

Risk Mitigation: Avoided production delays that would have jeopardized customer commitments.

Competitive Advantage: Faster market entry enabled the customer to capture early adopter segment.

Phase 3:

Field Deployment Support

Timeline: Ongoing post-production

Objective: Maintain product quality and customer satisfaction throughout the product lifecycle

Support Model

Local Technical Support:

- North American SJDC providing a <24-hour response time
- Direct access to the engineering team for complex issues
- On-site support available for critical debugging

Long-Term Availability:

- 7+ year component availability commitment—reducing electronic waste and supporting circular economy principles
- Planned obsolescence roadmap with 12+ month notice
- Migration path to next-generation modules when needed

Firmware & Security Maintenance:

- Ongoing BIOS updates for performance optimization and power efficiency improvements
- Security patches for emerging vulnerabilities
- Compatibility testing with OS and driver updates

Reliability Impact

Result: <0.5% field failure rate across deployed units.

Critical Significance: In assistive device applications, reliability directly equals user safety and independence. This performance exceeded industry standards and customer expectations.

Customer Satisfaction: Zero customer escalations related to module quality or support responsiveness.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

BROADER MARKET INSIGHTS

Why Vision Systems Are Adopting COM-HPC Mini

Beyond this specific assistive technology deployment, ADLINK is seeing COM-HPC Mini adoption accelerate across multiple vision market segments. The common thread: applications that demand the same balance of performance density, thermal management, and long-term reliability—with ADLINK providing expert guidance to help customers navigate to the right platform for their mission-critical applications.

Industrial Vision & Inspection

Application Examples:

- Compact machine vision controllers for factory automation
- Multi-camera systems requiring centralized processing
- AI-powered defect detection in space-constrained production lines
- Portable quality inspection systems for field service

Key Requirements:

- Sustained processing for continuous inspection operations
- Silent operation to prevent dust contamination in clean rooms and reduce noise pollution
- Long-term availability to match industrial equipment lifecycles
- Wide temperature range for factory floor conditions
- Energy-efficient operation to reduce facility power costs

Mobile Vision Platforms

Application Examples:

- Autonomous mobile robots (AMRs) with vision-based navigation
- Delivery robots with obstacle detection and path planning
- Inspection robots for infrastructure monitoring
- Collaborative robots (cobots) with visual servo control

Key Requirements:

- Compact size and weight for mobile platforms
- Power efficiency for battery operation and extended runtime
- Vibration resistance for mobile environments
- Real-time processing for safety-critical navigation
- Thermal management without active cooling to maximize battery life

Edge AI Vision

Application Examples:

- Real-time video analytics at the network edge
- Smart camera systems with local inference
- Distributed vision networks for retail analytics
- Traffic monitoring systems with vehicle/pedestrian detection

Key Requirements:

- AI inference performance for real-time analytics
- Thermal management for outdoor and enclosed installations
- Network connectivity for distributed deployments
- Scalable architecture for multi-node systems
- Low power consumption for always-on operation and reduced carbon footprint across large deployments

Market Trend Analysis

The convergence of these requirements across vision markets reflects broader industry trends:

AI at the Edge: Vision processing increasingly moves from cloud to edge for lower latency and enhanced privacy—also reducing data center energy consumption

Compact Designs: End users demand smaller devices without performance compromises

Passive Cooling Operation: Silent, maintenance-free operation is becoming a standard expectation with the added benefit of lower power consumption

Long Lifecycles: Industrial and medical applications require 5–10-year product support—supporting circular economy and sustainability goals

Energy Consciousness: Growing emphasis on power efficiency for both operational cost reduction and environmental responsibility

COM-HPC Mini's architecture—combined with ADLINK's consultative approach to help customers navigate platform selection—directly addresses these converging trends, making it an increasingly relevant platform for next-generation vision systems that require the precise balance of high performance and compact mechanical design characteristic of mission-critical applications.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ROI ANALYSIS

Total Cost of Ownership for Vision Solution Architects

When evaluating COM-HPC Mini for vision applications, consider both direct costs and indirect value creation across the product lifecycle—including ADLINK's value in guiding platform architecture decisions and energy efficiency benefits.

Engineering Cost Avoidance

Reduced Development Cycles

- Platform architecture consultation: 2-4 weeks saved in initial design decisions
- SJDC thermal simulation support: 4-6 weeks saved vs. trial-and-error testing
- Pre-validated reference designs: 2-3 months saved in carrier board development
- BIOS optimization support: Eliminates the need for internal firmware expertise

Estimated Value: $150,000-$300,000 in engineering time savings for typical vision product development

Standardized Design Approach

- COM-HPC interface reduces custom PCB complexity vs. direct SoC integration
- Modular architecture enables parallel hardware/software development
- Reusable carrier board design across product generations—reducing both cost and environmental impact of redesigns

Estimated Value: 40-60% reduction in hardware NRE for product variants and next-gen platforms

Risk Mitigation

- Expert platform selection guidance reduces the risk of architectural mismatches
- Proven thermal performance reduces the risk of late-stage redesign
- An established supply chain minimizes allocation and availability risks
- Long-term support commitment protects product lifecycle investments

Estimated Value: Avoided costs of 6–12-month delays and emergency redesigns (often $500,000+)

Business Scalability Benefits

Flexible Production Volumes

- Pilot Programs: 1,000-5,000 units without MOQ penalties
- Growth Phase: 10,000-50,000 units with volume pricing
- Mass Production: 100,000+ units with established quality baselines

Business Impact: Enables market validation before committing to high-volume tooling

Geographic Support

- North America SJDC: Direct support for US/Canada customers with platform architecture consultation
- European DC: Local support for EMEA deployments
- Asia DC: In-region support for APAC manufacturing

Business Impact: Faster local response times and cultural/time zone alignment

Competitive Pricing

- Transparent pricing structure across volume tiers
- No hidden costs for engineering support or customization
- Competitive total cost vs. custom SoC solutions when NRE is factored

Business Impact: Predictable BOM costs enable accurate product margin planning

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Long-Term Viability

Extended Availability

- 7+ year component availability guarantee
- 12+ month end-of-life notification for transition planning
- Migration roadmap to next-generation COM-HPC modules

Business Impact: Matches typical vision product lifecycles in medical, industrial, and assistive tech markets while supporting sustainability commitments through extended product lifecycles and reduced electronic waste

Ongoing Support

- Continuous firmware updates for performance and security —including power efficiency optimizations
- Technical support throughout the product lifecycle
- Compatibility validation with new OS versions

Business Impact: Reduces long-term maintenance burden and unexpected support costs

Technology Roadmap

- Forward compatibility within the COM-HPC standard
- Access to next-gen processors without carrier board redesign
- Protection against obsolescence through modular architecture

Business Impact: Extends the useful life of R&D investments and enables smooth product evolution

Sustainability Benefits

- Energy-efficient architecture reduces operational costs
- Long lifecycle support minimizes electronic waste
- Passive cooling eliminates fan-related maintenance and disposal
- Optimized performance-per-watt supports corporate sustainability goals

ROI Summary Table

COST CATEGORY	TRADITIONAL SOC APPROACH	COM-HPC MINI APPROACH	ADVANTAGE
NRE DEVELOPMENT	$500K-$1M	$200K-$400K	50-60% reduction
TIME TO MARKET	18-24 months	12-15 months	4-6 months faster
THERMAL VALIDATION	3-6 months trial/error	4-6 weeks with SJDC guidance	2-4 months saved
SUPPLY CHAIN RISK	High (single source)	Low (established ecosystem)	Reduced delay risk
LIFECYCLE SUPPORT	3-5 years typical	7+ years guaranteed	Extended revenue window
NEXT-GEN MIGRATION	Full redesign required	Carrier board reuse	40-60% NRE savings
ENERGY EFFICIENCY	Standard	Optimized ~25% savings	Lower OpEx & carbon footprint

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

TECHNICAL SPECIFICATIONS REFERENCE

COM-HPC Mini Detailed Specifications

	PARAMETER	SPECIFICATION	VISION APPLICATION BENEFIT
Physical Characteristics	FORM FACTOR	95 × 70 mm	Enables portable and embedded vision devices
	MODULE HEIGHT	Low-profile design	Fits in slim enclosures for handheld devices
	CONNECTOR	800-pin high-speed connector	Robust connection for mobile applications
	MOUNTING	Standard COM-HPC mounting holes	Simplified carrier board design
Performance Specifications	PROCESSOR	Intel Core Ultra processors (latest gen)	Real-time image processing capability
	TDP SUPPORT	Up to 107W	Handles intensive AI inference workloads
	MEMORY	DDR4/DDR5 support	High bandwidth for image data streams
	GRAPHICS	Integrated Intel graphics	Hardware acceleration for image processing
Power & Thermal	POWER INPUT	8–20V wide range	Simplifies power supply design
	POWER EFFICIENCY	Optimized power states & intelligent thermal management	Extends battery life in portable devices & reduces energy consumption
	THERMAL DESIGN	Passive cooling-capable with a proper heatsink	Silent operation for user comfort & lower power draw
	OPERATING TEMP	-40°C to 85°C (extended)	Supports industrial and outdoor deployments
Connectivity & I/O	DISPLAY OUTPUT	Multiple DisplayPort	Supports high-resolution displays
	CAMERA INTERFACE	MIPI-CSI lanes	Direct camera connectivity
	PCIE LANES	Multiple PCIe Gen 3/4	Expansion for accelerators or I/O
	USB PORTS	USB 3.x (multiple)	Peripheral connectivity
	ETHERNET	Gigabit Ethernet	Network connectivity for edge deployments
	STORAGE	SATA, NVMe support	Fast storage for image processing
Reliability & Support	AVAILABILITY	7+ years	Matches typical vision product lifecycles & supports sustainability
	MTBF	>100,000 hours	Industrial-grade reliability
	CERTIFICATIONS	CE, FCC, RoHS	Global market compliance & environmental responsibility
	QUALITY	Industrial-grade components	Field-proven reliability

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

IMPLEMENTATION ROADMAP

From Concept to Volume Deployment

If you're architecting vision solutions facing similar thermal-performance constraints, this proven implementation approach—with ADLINK's guidance at each stage—can accelerate your path to market.



Stage 1:

Technical Validation

Timeline: Weeks 1-4

Objective: Validate COM-HPC Mini performance for your specific vision workload

Activities

Engage SJDC Support:

- Schedule an initial consultation with ADLINK's regional SJDC team for platform architecture guidance.
- Share your technical requirements, thermal constraints, and use cases.
- Discuss thermal simulation and BIOS optimization options.
- Explore COM-HPC Mini positioning as an optimal solution for mission-critical applications requiring a balance of high performance and compact design.

Obtain Evaluation Kit:

- Request the COM-HPC Mini evaluation kit with a development carrier board
- Receive documentation, reference designs, and a software support package
- Access to ADLINK's developer portal for technical resources

Proof-of-Concept Testing:

- Port your vision algorithms to the evaluation platform
- Conduct performance benchmarking with representative orkloads
- Test thermal behavior under sustained operation and measure power consumption
- Validate I/O connectivity and peripheral integration

Success Criteria

- ☑ Vision processing performance meets or exceeds requirements
- ☑ Thermal performance acceptable for target enclosure design
- ☑ I/O interfaces support all required cameras, displays, and peripherals
- ☑ Software stack (OS, drivers, libraries) compatible with your application
- ☑ Power efficiency meets battery life or operational cost targets

Deliverables

- Technical validation report
- Performance benchmark data
- Thermal test results
- Power consumption analysis
- Go/no-go decision for carrier board design

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



Stage 2:

Carrier Board Development

Timeline: Months 2-4

Objective: Design a custom carrier board optimized for your vision application

Activities

Carrier Board Design:

- Design a carrier board with required I/O, power, and mechanical interfaces
- Work with ADLINK SJDC for design review and optimization —including platform architecture validation
- Leverage reference designs to accelerate development

Thermal Design:

- Conduct CFD thermal simulation with ADLINK SJDC support
- Design a heatsink and thermal interface for your enclosure
- Optimize airflow and heat spreading based on simulation results to maximize performance-per-watt

BIOS Customization:

- Define BIOS parameters for your specific workload profile
- Work with ADLINK to tune power and thermal settings for optimal efficiency
- Validate optimized BIOS with your application

Prototype Build:

- Fabricate carrier board prototypes (DVT phase)
- Integrate COM-HPC Mini modules
- Build a complete system prototype for validation

Success Criteria

- ☑ Carrier board functions correctly with all interfaces operational
- ☑ Thermal performance meets targets in the actual enclosure
- ☑ System stability verified under extended testing
- ☑ Energy efficiency targets achieved
- ☑ Ready for pilot production

Deliverables

- Validated carrier board design
- Production-ready PCB files
- Thermal validation report
- Power consumption profile
- BIOS configuration specification

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



Stage 3:

Pilot Production

Timeline: Months 5-6

Objective: Field-test with real users before committing to volume production

Activities

Pilot Manufacturing:

- Order a pilot quantity of COM-HPC Mini modules (1,000-5,000 units)
- Manufacture carrier boards and assemble complete systems
- Conduct incoming quality inspection and functional testing

Field Deployment:

- Deploy pilot units to beta customers or internal test users
- Collect performance data, reliability metrics, and user feedback, including battery life and thermal comfort
- Monitor field failure rates and identify any issues

Supply Chain Validation:

- Validate ADLINK's delivery performance and communication
- Assess quality consistency across production batches
- Confirm long-term availability and support commitments

Refinement:

- Address any issues identified during field testing
- Optimize manufacturing processes based on pilot learnings
- Finalize production design and documentation

Success Criteria

- ☑ Field failure rate acceptable (typically <1% for pilot)
- ☑ User feedback validates product performance and usability
- ☑ Supply chain delivers on time with consistent quality
- ☑ No major design changes required before volume production
- ☑ Energy efficiency meets user expectations in real-world use

Deliverables

- Field test results and reliability data
- User feedback summary
- Battery life and thermal performance validation
- Production-ready manufacturing documentation
- Go-ahead for volume production

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



Stage 4:

Volume Deployment

Timeline: Month 7 and beyond

Objective: Scale to mass production with consistent quality and support

Activities

Production Ramp:

- Increase order volumes progressively (10K → 50K → 100K+ units)
- Maintain close communication with the ADLINK supply chain team
- Monitor quality metrics and field performance continuously

Ongoing Support:

- Activate long-term support agreement with ADLINK
- Establish regular technical review meetings, including platform optimization discussions
- Plan for firmware updates and product evolution

Lifecycle Management:

- Track the COM-HPC Mini availability roadmap
- Plan for next-generation module transitions
- Protect the carrier board investment through modular architecture and reduce the environmental impact of product transitions

Success Criteria

- ☑ Production volumes meet market demand
- ☑ Field failure rates remain low (<0.5% typical)
- ☑ Customer satisfaction is high with product performance
- ☑ Clear product evolution roadmap established
- ☑ Sustainability goals achieved through energy efficiency and long lifecycle

Deliverables

- Stable, high-volume production
- Established quality baselines
- Long-term product roadmap
- Successful market deployment
- Demonstrated sustainability benefits through operational efficiency

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

CONCLUSION

The Right Partner Makes the Difference

The assistive vision success story demonstrates that the right embedded computing partner doesn't just supply modules—they provide expert guidance to navigate to the optimal platform architecture, compress your engineering cycles, de-risk your supply chain, and enable you to focus on your differentiated vision algorithms and user experience.

Key Takeaways for Vision Solution Developers

Technical Excellence: COM-HPC Mini delivers desktop-class performance in a credit-card form factor with proven thermal efficiency for passive cooling operation and optimized energy efficiency.

Platform Guidance: ADLINK's consultative approach helps vision solution architects navigate to the right platform—with COM-HPC Mini particularly well-suited for mission-critical applications that require the precise balance of high performance and compact mechanical design.

Engineering Partnership: SJDC collaboration provides thermal simulation, BIOS optimization, platform selection consulting, and technical support that accelerates development and reduces risk.

Business Flexibility: Flexible MOQs, volume scalability, and 7+ year availability commitment align with the unique needs of vision product lifecycles while supporting sustainability goals.

Proven Track Record: Field-validated reliability (<0.5% failure rates) and successful deployments across assistive tech, industrial vision, and edge AI applications.

Sustainability by Design: Energy-efficient architecture, long product lifecycles, and passive cooling operation support corporate environmental goals while reducing operational costs.

The Vision Forward

As vision systems become more sophisticated and compact, the thermal-performance paradox will only intensify. Success will belong to those who can deliver uncompromising performance in form factors that fit real-world applications—whether handheld assistive devices, compact industrial controllers, or distributed edge AI cameras—all while meeting growing demands for energy efficiency and sustainability.

For vision solution architects, engineers, and business development teams evaluating next-generation platforms, the COM-HPC Mini offers a proven path from concept to volume deployment, backed by a partner committed to guiding you to the optimal solution for your specific mission-critical requirements.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

NEXT STEPS

Start Your Vision Solution Journey

Technical Deep Dive

Explore complete specifications, reference designs, and technical documentation:

COM-HPC Mini Product Page

Request Consultation

Schedule a technical consultation with ADLINK's vision systems team to discuss your specific thermal, performance, sustainability, and deployment requirements—including platform architecture guidance for your mission-critical application.

Contact your regional SJDC:

- North America SJDC
- EMEA DC
- AP DC

Evaluation Kit

Request a COM-HPC Mini evaluation kit to begin hands-on validation with your vision workload.

Case Study Discussion

Interested in learning more about this assistive vision deployment or similar success stories? Contact ADLINK's marketing team for detailed discussions.

ABOUT ADLINK TECHNOLOGY

ADLINK Technology is a global leader in edge computing solutions, providing mission-critical embedded platforms for IoT, AI, and industrial automation applications across diverse markets.

With decades of experience in embedded computing and a commitment to long-term partnerships, ADLINK helps system integrators and OEMs bring innovative products to market faster with lower risk and higher reliability—while supporting their sustainability goals through energy-efficient designs and extended product lifecycles.

Global Presence: North America | Europe | Asia-Pacific

Core Capabilities: Embedded Computing | Edge AI | Industrial IoT | Vision Systems | Platform Architecture Consulting

Support Model: Regional San Jose Design Centers (SJDC) providing local engineering support and platform selection guidance

ADLINK LEADING EDGE COMPUTING

Tel: +886-3-216-5088
Fax: +886-3-328-5706
Email: service@adlinktech.com

www.adlinktech.com

All products and company names listed are trademarks or trade names of their respective companies Updated November 2025 © ADLINK Technology, Inc. All rights reserved. All specifications, pricing, and product names are subject to change without notice.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000