Kornit Atlas MATRIX

One Solution, Infinite Possibilities.



A Single System That Expands Your Business Potential.

High-quality performance sportswear production.
True multi-fabric capability. Industrial-grade reliability.
Best-in-class TCO.

Kornit Digital

Atlas MATRIX redefines digital printing for a new era of performance, powered by Kornit MAX and Karbon Technology:

Print What Others Can't

Confidently print on dyed polyester with Kornit Karbon Technology, delivering a digital, migration-free process, while seamlessly handling cotton and blends through a media-agnostic, single-step workflow - all in one unified system that expands your market reach.

Premium Sportswear Quality

Deliver exceptional prints with an expanded color gamut that unlocks high-end sports and licensed applications - with unmatched hand-feel and accuracy to meet the most demanding brand requirements.

Unmatched Print Quality & Durability

Achieve reliable, repeatable quality within every job and across production environments powered by QualiSet, with durability built to perform and last.

Robust, Efficient Production at Scale

Maximize productivity with uninterrupted, high-performance production through a simple single-operator workflow - enabling best-in-class Total Cost of Ownership.



Kornit Digital

Kornit
Karbon Technology

Kornit Karbon Technology: Polyester without Limits

Kornit Karbon Technology enables fully digital, migration-free direct printing on dyed polyester and performance fabrics, combined with advanced Direct-to-Film capabilities, all powered by DigiBlocker™ - Kornit's proprietary digital ink blocker

One Technology. Multiple Capabilities.





Karbon Shield:
Performance-grade Direct-to-Polyester Printing

- Eliminate dye migration on dyed polyester, even at high production speed, with Kornit's proprietary Karbon Shield process
- Access sportswear and performance applications previously out of reach for digital printing with reliable, brand-ready results
- Preserve color vibrancy and print integrity across performance fabrics without compromising hand-feel

Karbon Transfer:
Advanced Direct-to-Film Decoration

- Complement DTG with Direct-to-Film for complex placements, and specialty applications – including caps, bags, and other accessories – unlocking new market opportunities
- Expand your offering with advanced design capabilities, including wider color gamut, semi-transparent effects, fine detail, and more – even on dye-sublimated fabrics
- Ensure precise color matching between direct printing and indirect decoration for consistent, high-quality results across applications

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Supporting the latest developments

Rapid Size Shifter

Rapid Size Shifter: Versatility Across Applications, On Demand

- Eliminate pallet replacement while maintaining throughput, removing pallet size changes as a limitation in production planning and scheduling
- Adjust pallet sizes in seconds with a quick, lightweight mechanism that keeps production running smoothly without downtime
- Expand into new products and applications - including fast, embedded neck tag printing, to scale your offering and grow your business

QualiSet
Smart Autonomous Calibration

Kornit QualiSet: Smart Autonomous Calibration

- Kornit's QualiSet machine vision technology makes sure your system is calibrated in key functional areas to guarantee quality and consistency
- Consistently meet top quality standards across orders, jobs, machines, and sites at all times
- A simple, effective process that delivers accurate results in short cycle times with minimal interruptions

Kornit XDi Technology

Breaking the dimensional barrier: Kornit XDi 3D decorative applications

- Be the first to offer digital 3D decorative applications that generate unique 3D effects such as: threadless embroidery, high-density, vinyl, screen transfer emulations and much more
- Break creative boundaries pushing the limits of design, dimension, and color
- Use Kornit XDi Digitizer to instantly transform 2D designs into ready-to-print 3D effects

Neo Pigment™ ECO-RAPID

Kornit Intensifier 2.0: JIS-Certified Performance Durability

- Enhance wash and rub fastness to meet demanding brand and performance standards, including JIS 1 & 2 rub fastness
- Maintain print quality and color integrity through repeated washing, withstanding temperatures up to 60°C
- Deliver long-lasting, brand-ready results trusted for sportswear and high-performance apparel

Main Features



- Powered by advanced MAX and Karbon Technology
- Patented single-step solution
- Zero migration on dyed polyester and reliable color integrity, powered by Karbon Shield
- Advanced Direct-to-Film capabilities, powered by Karbon Transfer
- Eco-Rapid ink set and new functional fluids, including DigiBlocker, Intensifier 2.0 and Q.fix 2.0
- High wash and rub fastness, including JIS 1&2, enabled by Intensifier 2.0
- Enhanced color coverage with a smooth, soft hand-feel, enabled by Q.fix 2.0
- Kornit XDi Technology available per choice
- Extended color gamut with Reds and Greens, or Neons
- QualiSet smart autonomous calibration and system quality control
- Rapid Size Shifter with multi-size pallets (optional)
- Production data insights via Kornit Konnect
- ECO PASSPORT, GOTS* and bluesign® certified for NeoPigment™ Eco-Rapid ink

* Neon consumables are not supported

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Performance across every stage of production

- Zero dye migration on dyed polyester and Direct-to-Film decoration delivering clean, reliable results on challenging fabrics, powered by Karbon Technology
- JIS-certified enhanced durability and soft hand-feel, even on ink-heavy and performance-driven prints
- Advanced color matching with an extended color gamut, including Reds and Greens, or Neons
- Continuous high-speed production with smart automation, delivering stable, consistent, high-quality output with minimal operator intervention
- Minimal setup and training for fast onboarding and operational readiness

Technical Specs

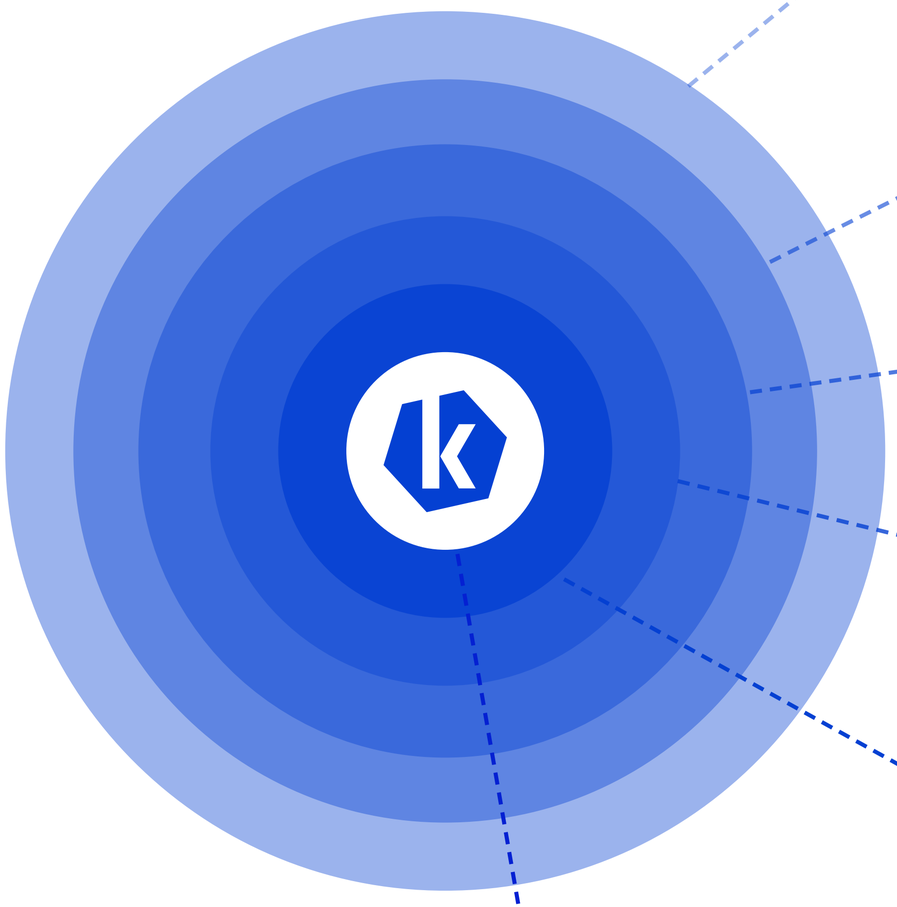
Production Output	**150 impressions per hour on cotton / 98 impressions per hour on polyester***
Ink Channel	CMYK + RG or Neon Pink & Neon Yellow + W + DigiBlocker + Q.fix 2.0 + Intensifier 2.0
Print Heads	Dimatix StarFire 1024 Twinflex
Max Print Area	60X90 cm / 23.6x35.4 in with Super Grand Pallet
Print Resolution	Up to 1,200 dpi
Ink Recirculation	Embedded
Ink Set	NeoPigment Eco-Rapid
Fixation	Eco-Fix 2.0
Enhancers	Intensifier 2.0 and Q.fix 2.0
Humidity System	Integrated
Printable Substrates**	Cotton, blends and dyed Polyester
Additional Capabilities	XDi 3D decorations: threadless embroidery, high-density, vinyl, and screen transfer effects; DTFilm printing
Operating System	Win10
Dimensions	8.32 x 10.95 x 5.92 ft / 2.5 x 3.3 x 1.8 m
Max Weight	Approx. 2,200kg / 4,850lb
Power Consumption	1 kW
Compressed Air Pressure	6-8 bar (90-116 psi) regulated
Operating Conditions	Temperature: 18-30C / 64.4-86F, Humidity: 45-65%
RIP	Print Factory
Recommended WF	KornitX workflow
Konnect	Supported
Rapid Size Shifter Compatible	Multiple garment sizes supported including neck tag using a single adjustable pallet and raisers
QualiSet	Smart autonomous calibration

* For 13"X13" (33cm x 33cm) images in Standard print mode including 10 seconds handling time
** Most working on default setups; some may need custom setups.
Some exceptions may arise due to fabric composition and specific garment requirements

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Kornit Ecosystem

Cover your bases



1 Ink and consumables:
Kornit water-based NeoPigment™ ink sets enable high-performance digital printing, with pigment inks produced in-house and specifically designed for Kornit systems and print technologies.

2 Environmental Impact
Kornit inks and consumables are supported by recognized certifications and compliance standards, including bluesign® System Partner, GOTS, and ECO PASSPORT.

3 Training and Support:
Multilingual services including global support, customer empowerment plans, upgrades, beginner-to-advanced training, maintenance, and more.

4 Applications:
Kornit offers pallets for a wide range of garment types and sizes. The optional Rapid Size Shifter enables multiple applications using a single pallet, streamlining workflows and improving ease of use.

5 Global Fulfillment Network:
Connects the world's leading brands to a managed network of fulfillers based on proximity to end customers and stores.

6 Data & Workflow:
Kornit's advanced workflow ecosystem delivers end-to-end visibility and control through data, analytics, and automation, enabling informed decision-making and continuous operational optimization at scale.

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