TOSHIBA

Product Brochure | Next-Gen Industrial Printers

BX400/BX600 Series



Unlock the Power of Labelling

A new era of industrial printing

Built on the same renowned hardware as its outstanding predecessors, the BX series boasts a powerful dual-core CPU that drives Toshiba's revolutionary A-BRID operating platform. It provides smart, cloud-based intelligence that keeps your operation seamless, even in the most demanding applications. The BX industrial printer series – where superior hardware and innovative technology unite.

Built for performance, designed for efficiency

The BX series inherits the robustness of its predecessor and introduces innovations that make industrial labelling smarter and more efficient than ever before. Reliability is key, and that's why these printers are designed to handle high-volume, continuous operations with minimal downtime or operator interventions. Designed for long-term use with reduced maintenance requirements, along with cloud connectivity for remote device management, the BX series stays ahead with unmatched productivity without compromising on quality.



Seamless integration & effortless operation

Toshiba understands that businesses require labelling solutions that integrate easily with existing infrastructure. The BX series offers multiple connectivity options, including USB, LAN and optional Wi-Fi, along with native PDF printing and auto-emulation to support different printer languages.

Key features of the BX series

Renowned hardware reliability with field-proven design ensures minimal downtime and unmatched lower total cost of ownership (TCO).

- **Smart cloud connectivity**: The new A-BRID platform enables cloud-based device management, allowing businesses to monitor and control the entire printer fleet from anywhere.
- **Unmatched durability & cost control**: Equipped with long-life print heads and optional enhanced ribbon-saving technology, ensuring a low total cost of ownership (TCO).
- **Superior user experience:** New features like the integrated label near-end detection, the QR code-based help function and a full colour display simplify daily operation.
- **Upgrade to RFID printing**: Easily transform the BX410T to print and encode RFID tags and labels.
- **Versatile application range:** Supports a broad spectrum of labelling needs, from logistics and manufacturing to healthcare, retail and high-resolution micro-labelling.

With the BX industrial printers, businesses can future-proof their labelling operations, ensuring a smooth, efficient and intelligent printing experience that adapts to industry demands.

A-BRID – The future of industrial printing

Creating label intelligence

At the core of the BX series is A-BRID, a powerful and flexible operating platform designed to elevate the capabilities of industrial printers. By combining a real-time OS and a Linux-based OS, each running on separate cores of the dual-core CPU, A-BRID brings a level of intelligence, connectivity and efficiency never seen before in label printing.

Revolutionising printing

A-BRID isn't just about processing power – it transforms how printers function within an enterprise environment. This multitasking operating platform enables instant adaptation to changing print requirements, ensuring seamless operations even in the most demanding applications.

Optimised for control & easy integration

Integration, reliability and control are top priorities in industrial environments. The A-BRID platform merges multifunctional printer technology and connectivity into label printers, making integration easy. Additionally, A-BRID simplifies fleet deployment with its printer cloning feature, which allows businesses to replicate configurations across multiple devices effortlessly. Its web-based interface makes remote management simple, providing complete control via LAN, Wi-Fi or USB connections.

With A-BRID, businesses gain a high-performance, future-ready printing ecosystem that adapts to their evolving needs.

Key technologies of the A-BRID platform

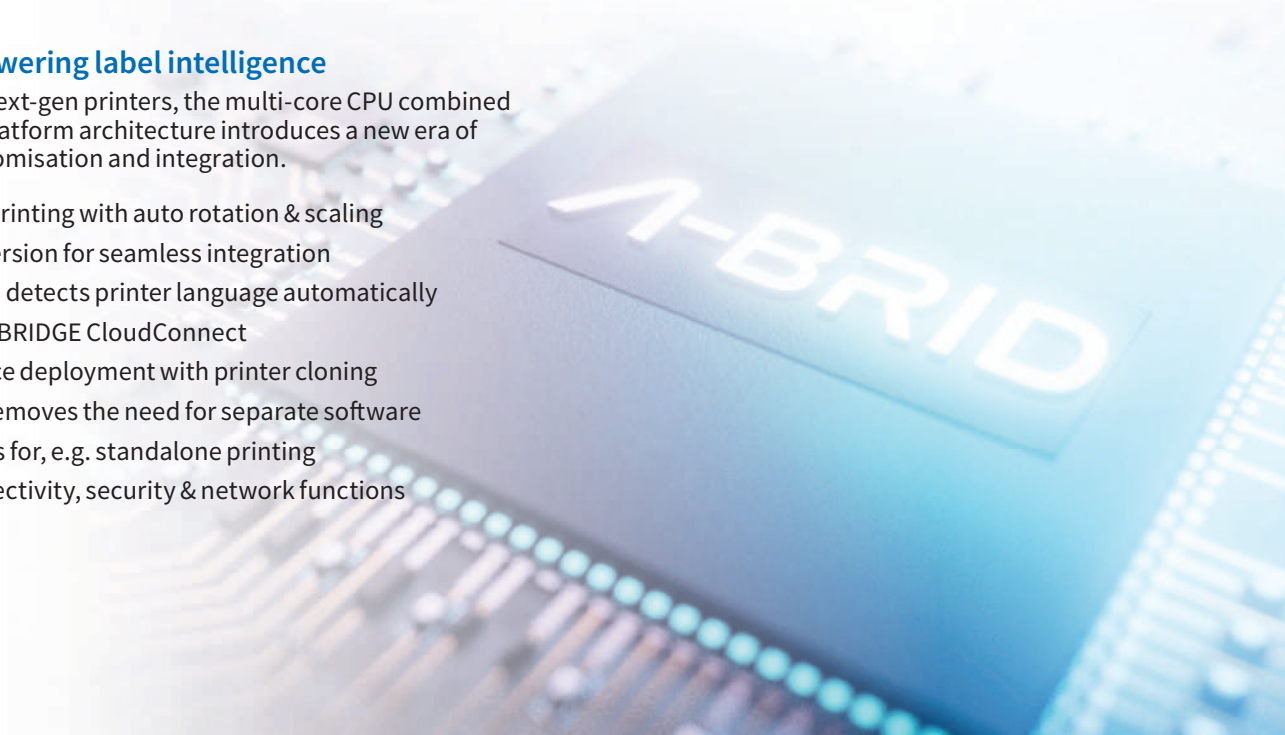
The A-BRID platform incorporates next-gen technologies to enhance printing efficiency, adaptability and ease of use.

- **Direct PDF printing:** Eliminates the need for external software, automatically adjusting, scaling and rotating PDFs for precise printing.
- **Print data converter:** Automatically converts or corrects incoming print data so that no change on the host system is required.
- **Auto-emulation detection:** Instantly recognises and adapts to different printer languages, making it easy to replace legacy systems without workflow interruptions.
- **Cloud-based management:** Enables remote diagnostics, updates and fleet management via e-BRIDGE CloudConnect.
- **Standalone printing capability:** Built-in embedded apps can be created to allow direct data input from barcode scanners, keyboards, or connected devices – eliminating the need for a separate workstation.

A-BRID – Empowering label intelligence

Designed for the next-gen printers, the multi-core CPU combined with the A-BRID platform architecture introduces a new era of connectivity, customisation and integration.

- Real-time PDF printing with auto rotation & scaling
- Easy data conversion for seamless integration
- Auto-emulation detects printer language automatically
- Cloud-ready: e-BRIDGE CloudConnect
- Simplified device deployment with printer cloning
- Web interface removes the need for separate software
- Embedded apps for, e.g. standalone printing
- Extended connectivity, security & network functions



A model for any use – Tailored solutions for every printing requirement

Every business has unique printing needs, which is why the 4” BX400 printer series offers four specialised base models. Whether you require high-performance industrial printing, cost-effective direct thermal labelling, or ultra-high-resolution output, there’s a model designed for you.

BX410T – Premium industrial printer

The BX410T is the workhorse of the series, designed for 24/7 operation in high-demand environments.

- Unmatched reliability with long-life print heads.
- Optimised TCO with features like the optional ribbon save technology and near-edge printing.
- Extra long ribbons with lengths of up to 800 m reduce the need for operator interventions.
- Upgrade for RFID printing and encoding. Quick and easy calibration with the embedded analyser.
- Ideal for logistics, manufacturing and large-scale production environments.



BX420D – Direct thermal industrial printer

A lower cost, industrial direct thermal solution perfect for short-term labelling applications such as shipping labels.

- No ribbon required, reducing material costs.
- Compact, efficient and easy to maintain.
- Best suited for logistics, retail and warehouse operations.



BX420T – Thermal transfer industrial printer

Designed for businesses upgrading from legacy printers, this model supports thermal transfer printing with flat-head print technology.

- Seamless integration with existing systems.
- All the benefits of centred media alignment with automatic width detection.
- Long-lasting labels for outdoor applications.
- Great for industrial, retail and compliance labelling.



BX430T – High resolution industrial printer

For ultra-precise applications, the BX430T delivers 600 dpi printing with micro-labelling capabilities.

- Perfect for electronic component and PCB labelling, with a label pitch as small as 3 mm.
- New high-function fabric cutter with kicker supports care label production in the garment industry.
- High-precision peel-off module for advanced and easy label handling.



Built for broader demands – Wide-format printing without compromise

When your operations require wider labels and greater throughput, the 6” BX600 printers deliver. Engineered for high-volume environments, they combine robust performance with the advanced technologies of the new A-BRID platform, ensuring seamless integration, enhanced usability, and long-term reliability.

BX610T – Premium wide-web industrial printer

The BX610T is the powerhouse for 24/7 operation in demanding industrial environments where wide-format labelling is essential.

- Exceptional reliability with Toshiba long-life print heads for continuous operation.
- Optimised total cost of ownership with near-edge printing and optional ribbon save technology.
- Supports extra-long ribbons up to 800 m, minimising operator intervention.
- Designed for pallet labelling, automotive part identification and special manufacturing applications requiring 6-inch wide labels.



BX620T – Thermal transfer wide-web industrial printer

Ideal for businesses transitioning from legacy systems, the BX620T supports thermal transfer printing with flat-head technology, tailored for 6” label formats.

- Seamless integration with existing infrastructure.
- Benefits from centered media alignment for consistent print quality across the label and from label to label.
- Produces long-lasting labels suitable for pallet and drum labelling, automotive part identificaton and outdoor asset tagging.
- Perfect for logistics, infrastructure and compliance labelling.





Printing for every industry – Unleashing new label and print applications

The BX next-gen industrial printers deliver precision, reliability and cost-efficiency for modern industrial labelling. From manufacturing and logistics to pharmaceuticals, electronics and garment care, the BX series offers the ideal solution.

Meeting industry challenges head-on

In industrial settings, labelling requirements are often demanding, with high-speed production lines requiring seamless integration and minimal downtime. Cost constraints call for optimised material usage and efficient printing, while regulatory compliance demands precision, clarity and durable label output. The BX series addresses these challenges with intelligent features, long-lasting components and robust performance, ensuring maximum efficiency with minimal operational costs.

A printer for every application

The BX printers are designed to seamlessly integrate into any industry, enhance labelling efficiency, and maximise operational reliability. Each application is supported by the BX400, BX600 or both series – depending on label format and operational needs.

Transport & logistics BX400 BX600
High-speed bulk printing for shipping labels (BX400) and wide-format pallet labels (BX600) in distribution centres.

Retail & e-commerce BX400 BX600
Crisp barcode and product labels allow for efficient tracking and pricing management.

Manufacturing & automotive BX400 BX600
Industrial-grade durability enables traceability labelling for components and assemblies.

Healthcare & pharmaceuticals BX400
Small-format labelling for medical packaging, ensuring compliance and patient safety.

Electronics & semiconductor production BX400
High resolution and high-accuracy printing on tiny labels, perfect for chip and PCB labelling.

Garment & textile industry BX400
New fabric cutter technology for producing care labels with precise edges.



Automate your labelling at any time

As businesses evolve, increasing productivity and reducing costs become essential. With the BX series, automation is seamless and easily achievable. Any BX industrial printer can be easily transformed into a print-and-apply system with the APLEX option.

Simplifying integration for automated labelling

Automated labelling systems often require complex setup and customisation, delaying deployment and increasing engineering effort. The APLEX solution eliminates these barriers with a plug-and-play design that enables fast integration into existing production lines – no redesigns or modifications needed. Easy to install and maintain, APLEX boosts operational efficiency while keeping implementation time and costs to a minimum.

APLEX – Automatic print & apply system

The APLEX automates and streamlines industrial labelling operations. It offers a scalable automation path for Toshiba industrial printers, allowing businesses to start small and expand seamlessly as production needs grow.

Improve productivity
Boosts productivity by up to 3.5 times by eliminating manual handling.

Save costs
Cuts costs and production time with automated labelling.

Simple integration
Installs and integrates into existing production lines in under three hours.

Upgrade to automation
Can be added to any Toshiba 4” or 6” industrial printer.

Ready-to-run solution
Delivered as a complete system for immediate deployment.

Future-proof investment
Upgradeable to RFID and compatible with Toshiba consumables and software.



Specifications BX400

	BX410T	BX420D	BX420T	BX430T
Models				
Resolution	GS02: 203 dpi (8 dots/mm) TS02: 305 dpi (12 dots/mm)	GS02: 203 dpi (8 dots/mm)	GS02: 203 dpi (8 dots/mm) TS02: 300 dpi (11.8 dots/mm)	HS02: 600 dpi (24 dots/mm)
General				
Print head	Near edge	Flat head		
Print method	Direct thermal/ thermal transfer	Direct thermal	Direct thermal/ thermal transfer	Direct thermal/ Thermal transfer
Dimensions	278 x 460 x 310 mm			
Weight	17 kg	15.2 kg	16.4 kg	17 kg
User interface	Full colour LCD, 2x LED, 11x key			
Operation temperature/ relative humidity	5°C–40°C / 25–85% non-condensing			
Storage temperature/ relative humidity	-40°–60°C / 10–90% non-condensing			
Power supply	AC 100–240 V, 50/60 Hz			
Print				
Sensor	Reflective, transmissive			
Max. print speed	356 mm/second (14 ips)	305 mm/second (12 ips)		152 mm/second (6 ips)
Print width	22–117 mm (DT) 22–104 mm (TT)	22–111 mm	22–111 mm (DT) 22–104 mm (TT)	13–107 mm
Print length Batch Cut Peel-off	 6–1,496 mm 21.4–1,492 mm 21.4–1,496 mm	 6–1,496 mm 17–1,492 mm 15–1,496 mm		 3–1,498 mm 3–497 mm 3–496 mm
Barcodes	EAN8, EAN13, JAN8, JAN13, UPC-A, UPC-E, NW7, CODE 39, Code 93, ITF, MSI, Code 128, EAN 128, Industrial 2 of 5, POSTNET, RM4SCC, KIX-code, GS1 DataBar, USPS Intelligent mail, Customer Barcode			
2D Codes	Data Matrix, PDF417, MaxiCode, QR Code, Micro QR Code, Micro PDF417, CP Code, AZTEC Code, GS1 QR Code, GS1 Data Matrix			
Fonts	Bitmap font, Outline font, Price font, Optional TTF, OTF, Writable characters			
Ribbon				
Ribbon width	max. 112 mm	—	max. 112 mm	max. 115 mm
Ribbon core size	25.7 mm (±0.2 mm)	—	25.7 mm (±0.2 mm)	25.7 mm (±0.2 mm)
Max. ribbon length	600 m , 800 m	—	600 m	300 m
Max. ribbon diameter	90 mm	—	90 mm	70 mm
Near end detection	30 or 70 m selectable	—	30 or 70 m selectable	30 or 70 m selectable
Media				
Alignment	Centred	Centred (with automatic width detection)		Centred
Backing paper width	30–120 mm	25 mm - 114 mm		25 mm - 110 mm
Label thickness	0.13–0.17 mm			
Inner media core diameter	76.2 mm			
Outer media roll diameter	max. 200 mm			
Media type	Vellum paper and labels, Matt coated paper, Glossy coated paper, Synthetic film, PET film, Polymide			
Media format	Roll, fanfold			
Near end detection	Adjustable, e.g. 10% remaining			

	BX410T	BX420D	BX420T	BX430T
RFID				
RFID module	UHF (EPC Gen2)[1], HF (ISO15693, ISO14443 Type A) [1]	—		
RFID analyser	Integrated RFID analyser, RFID analyse tool	—		
A-BRID Platform				
CPU	Dual core, 1.0 GHz			
A-BRID dual OS	System: Linux-based. Print engine: RTOS			
Memory	1 GB RAM, 8 GB ROM			
Expansion memory	via USB drive			
Embedded applications	SDK for custom applications, e.g. for standalone printing			
Print data converter	Automatically convert or correct incoming data			
PDF printing	Auto print of PDFs, auto rotate, auto scaling			
Software & Connectivity				
Emulation	Auto-detection of TPCL, ZPL II, DPL, SBPL, IPL, PDF			
Printer driver	Windows 11/10, Windows Server 2022/2019, SAP, CUPS driver for Linux, macOS			
SDK	iOS, Android, Windows, Java			
Interface	USB 2.0 HS (USB host/HID support), LAN 10/100/1000 BaseT, RS232[1], WLAN 802.11ac/a/b/g/n/ax[1], Bluetooth 5.2 [1], Expansion I/O[1]			
Language mode	TPCL			
Label software	NiceLabel free, BarTender UltraLite			
IoT device management	e-BRIDGE CloudConnect			
Options				
Disc cutter	✓	✓	✓	✓
Rotary cutter	✓	—	—	—
Fabric cutter	—	—	—	✓
Peel-off	✓	✓	✓	✓
High accuracy peel-off	—	—	—	✓
Ribbon save	✓	—	—	—
External media guide	✓	✓	✓	✓
UHF RFID kit	✓	—	—	—
HF RFID kit	✓	—	—	—
Serial RS232	✓	✓	✓	✓
WLAN + Bluetooth	✓	✓	✓	✓
External I/O	✓	✓	✓	✓
Real time clock	✓	✓	✓	✓
Cover damper	standard	✓	✓	standard

[1] Optional

e-BRIDGE CloudConnect BarTender

Specifications BX600

	BX610T	BX620T
Models		
Resolution	GS02: 203 dpi (8 dots/mm) TS02: 305 dpi (12 dots/mm)	GS02: 203 dpi (8 dots/mm) TS02: 305 dpi (12 dots/mm)
General		
Print head	Near edge	Flat head
Print method	Direct thermal/thermal transfer	
Dimensions	331 x 460 x 310 mm	
Weight	19.6 kg	18.4 kg
User interface	Full colour LCD, 2x LED, 11x key	
Operation temperature/ relative humidity	5°C–40°C / 25–85% non-condensing	
Storage temperature/ relative humidity	-40°–60°C / 10–90% non-condensing	
Power supply	AC 100–240 V, 50/60 Hz	
Print		
Sensor	Reflective, transmissive	
Max. print speed	305 mm/second (12 ips)	
Print width	47–162 mm	
Print length Batch Cut Peel-off	 6–1,498 mm 21.4–1,498 mm 21.4–1,496 mm	
Barcodes	EAN8, EAN13, JAN8, JAN13, UPC-A, UPC-E, NW7, CODE 39, Code 93, ITF, MSI, Code 128, EAN 128, Industrial 2 of 5, POSTNET, RM4SCC, KIX-code, GS1 DataBar, USPS Intelligent mail, Customer Barcode	
2D Codes	Data Matrix, PDF417, MaxiCode, QR Code, Micro QR Code, Micro PDF417, CP Code, AZTEC Code, GS1 QR Code, GS1 Data Matrix	
Fonts	Bitmap font, Outline font, Price font, Optional TTF, OTF, Writable characters	
Ribbon		
Ribbon width	55–170 mm	
Ribbon core size	25.7 mm (±0.2 mm)	
Max. ribbon length	600 m , 800 m	600 m
Max. ribbon diameter	90 mm	
Near end detection	30 or 70 m selectable	
Media		
Alignment	Centred	
Backing paper width	50–165 mm	
Label thickness	0.13–0.17 mm	
Inner media core diameter	76.2 mm	
Outer media roll diameter	max. 200 mm	
Media type	Vellum paper and labels, Matt coated paper, Glossy coated paper, Synthetic film, PET film, Polymide	
Media format	Roll, fanfold	
Near end detection	Adjustable, e.g. 10% remaining	

	BX610T	BX620T
A-BRID Platform		
CPU	Dual core, 1.0 GHz	
A-BRID dual OS	System: Linux-based. Print engine: RTOS	
Memory	1 GB RAM, 8 GB ROM	
Expansion memory	via USB drive	
Embedded applications	SDK for custom applications, e.g. for standalone printing	
Print data converter	Automatically convert or correct incoming data	
PDF printing	Auto print of PDFs, auto rotate, auto scaling	
Software & Connectivity		
Emulation	Auto-detection of TPCL, ZPL II, DPL, SBPL, IPL, PDF	
Printer driver	Windows 11/10, Windows Server 2022/2019, SAP, CUPS driver for Linux, macOS	
SDK	iOS, Android, Windows, Java	
Interface	USB 2.0 HS (USB host/HID support), LAN 10/100/1000 BaseT, RS232[(1)], WLAN 802.11ac/a/b/g/n/ax[(1)], Bluetooth 5.2 [(1)], Expansion I/O[(1)]	
Language mode	TPCL	
Label software	NiceLabel free, BarTender UltraLite	
IoT device management	e-BRIDGE CloudConnect	
Options		
Disc cutter	✓	✓
Rotary cutter	✓	—
Peel-off	✓	✓
Ribbon save	standard	—
External media guide	✓	✓
Serial RS232	✓	✓
WLAN + Bluetooth	✓	✓
External I/O	✓	✓
Real time clock	standard	standard
Cover damper	standard	standard

[(1)] Optional

e-BRIDGE CloudConnect BarTender

About Toshiba Tec

Toshiba Tec Germany Imaging Systems GmbH is part of the globally operating Toshiba Tec Corporation, active in various high-tech industrial sectors.

Toshiba Tec Corporation is a leading provider of information technology, operating across multiple industries - ranging from retail, education and business services to hospitality and manufacturing. With headquarters in Japan and over 70 subsidiaries worldwide, Toshiba Tec Corporation helps organisations transform the way they create, record, share, manage and display information.

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