TOSHIBA

Product Brochure | Next-Gen Industrial Printers

BX400 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

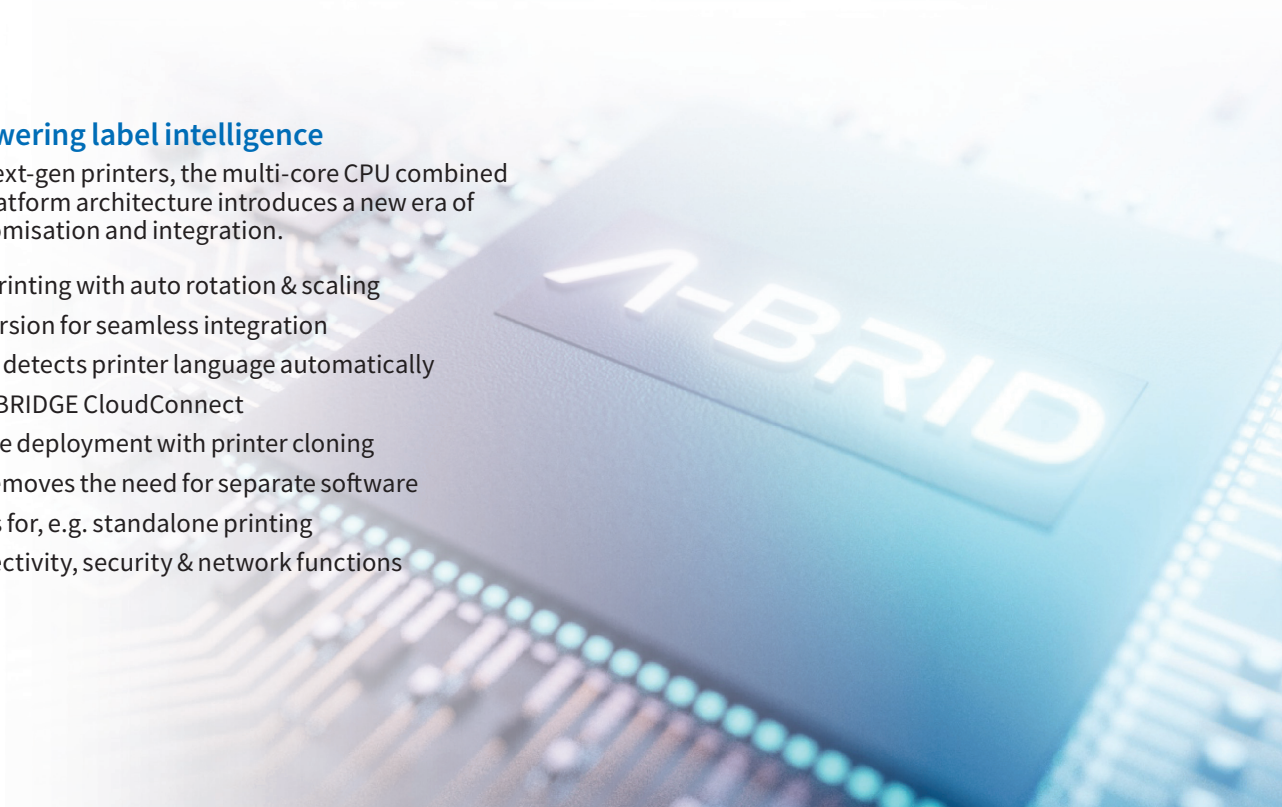
The A-BRID platform incorporates next-gen technologies to enhance printing efficiency, adaptability and ease of use.

- **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.



BX410T + optional rotary cutter

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.



BX420D

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.



BX420T

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.



BX430T + optional fabric cutter

Specifications BX400 Series

	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)	—	25.8 mm (±0.2 mm)	25.8 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[2], PDF			
Printer driver	Windows 11, 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
[2] IPL not supported by BX430T

About Toshiba Tec

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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