

# TOSHIBA

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 BX400 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 BX400 industrial printer series – where superior hardware and innovative technology unite.

## Built for performance, designed for efficiency

The BX400 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 BX400 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 BX400 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 BX400 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.

## A-BRID – Empowering label intelligence

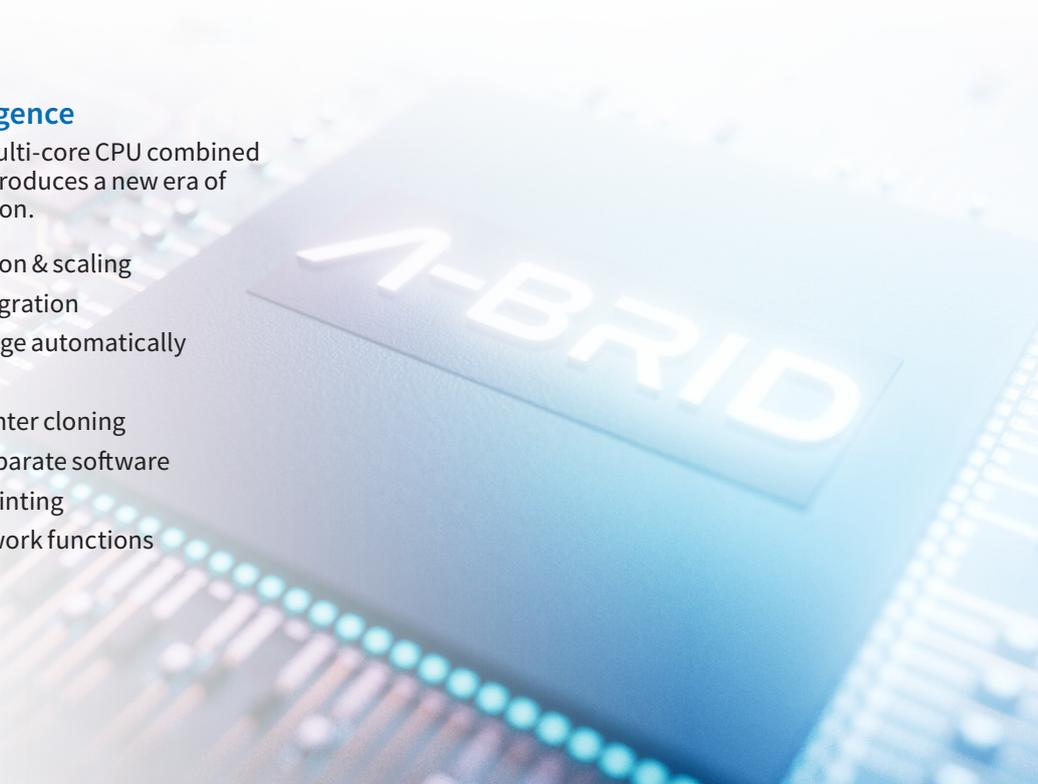
Designed for the next-gen printers, the multi-core CPU combined with the A-BRID platform architecture introduces a new era of connectivity, customisation and integration.

- 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

## 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

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

Every business has unique printing needs, which is why the 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.



# Printing for every industry – Unleashing new label and print applications

The BX400 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 optimized material usage and efficient printing, while regulatory compliance demands precision, clarity and durable label output. The BX400 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 BX400 printers are designed to seamlessly integrate into any industry, enhance labelling efficiency, and maximise operational reliability.



### Transport & logistics

High-speed, bulk printing for shipping labels ensures seamless operations in distribution centres.



### Healthcare & pharmaceuticals

Small-format labelling for medical packaging, ensuring compliance and patient safety.



### Retail & e-commerce

Crisp barcode and product labels allow for efficient tracking and pricing management.



### Electronics & semiconductor production

High resolution and high-accuracy printing on tiny labels, perfect for chip and PCB labelling.



### Manufacturing & automotive

Industrial-grade durability enables traceability labelling for components.



### Garment & textile industry

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 by adding the APLEX option.

### APLEX4 – Automatic print & apply system

The APLEX4 automates and steamlines industrial labelling operations.

- Boosts productivity by up to 3.5 times by eliminating manual handling.
- Cuts costs and production time with automated labelling.
- Installs and integrates into existing production lines in under three hours.
- Can be added to existing Toshiba printers.



# Specifications

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

	BX410T	BX420D	BX420T	BX430T
<b>RFID</b>				
RFID module	UHF (EPC Gen2) <sup>(1)</sup> , HF (ISO15693, ISO14443 Type A) <sup>(1)</sup>		—	
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, 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 <sup>(1)</sup> , WLAN 802.11ac/a/b/g/n/ax <sup>(1)</sup> , Expansion I/O <sup>(1)</sup>
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	✓	✓	✓	✓
Wireless LAN	✓	✓	✓	✓
External I/O	✓	✓	✓	✓
Real time clock	✓	✓	✓	✓
Cover damper	standard	✓	✓	standard

<sup>(1)</sup> Optional

## About Toshiba Tec UK

Toshiba Tec UK Imaging Systems Ltd 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. 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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