

# Toshiba SureMark Printer

*Single-station model 1NR (1NA)*

## The world's premier retail printer

Retailers realize now is the time to drive transformation and make their operations smarter and more competitive. Those who invest in technology that can shrink costs while providing operational efficiencies and integrating “green” principles into their business will be positioned for the future.

For these retailers, the Toshiba SureMark™ single-station printer is the only choice. Built for ultimate retail-hardened performance in demanding environments, the Toshiba SureMark printer delivers speed, reliability and unmatched serviceability and manageability. Plus it offers earth-friendly design and packaging that set new world standards.

## Toshiba SureMark printers boost operational efficiency and cut costs

Toshiba SureMark printers are specifically designed to meet the rigors of retail environments and feature the most advanced printer technologies today to speed transactions. With 80 lines per second (LPS)<sup>1</sup> for single-byte (SBCS) or double-byte (DBCS) printing, these printers process transactions faster to help improve customer satisfaction and employee productivity. Toshiba innovations, such as standard 3 MB<sup>2</sup> flash memory, help print “value added” messages on receipts while keeping checkout lanes moving.

The new Ethernet LAN feature provides an optional industry standard 10/100 Ethernet communication adapter. With Ethernet connectivity, retailers can dramatically increase the flexibility of their 4610 printers. Supported functions include the following:

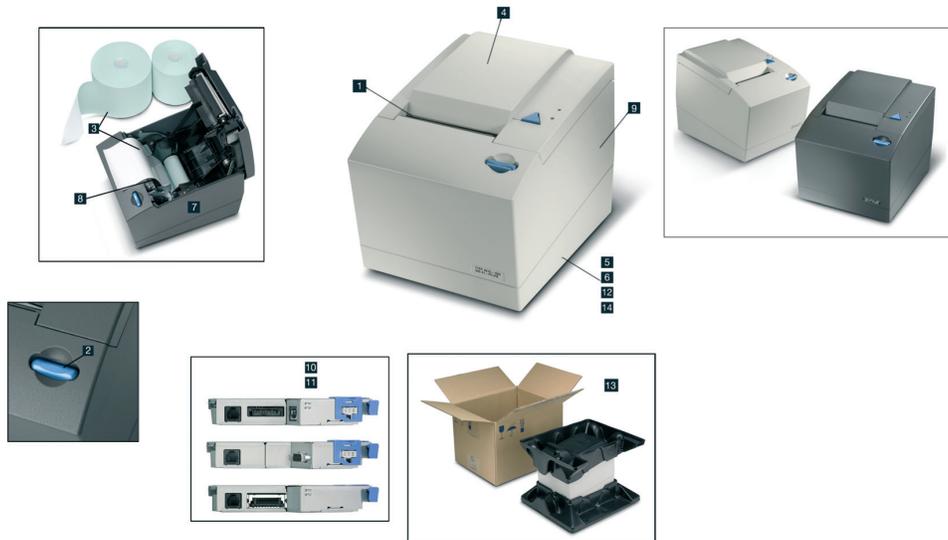
- Remotely locate 4610 printers from their host systems
- Share a single printer among multiple host systems
- Print directly from mobile devices, using the Toshiba 4610 Software Development Kits (SDKs)<sup>4</sup> for iOS and Android™

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## Highlights

- Fast, reliable receipt printing at speeds up to 80 lines per second (250 mm/sec)
- Easy to manage with Toshiba exclusive Remote Management Agent
- Accurate, programmable sensor system monitors printer “health”
- Four-inch (102 mm) receipt rolls reduce paper changes by 40 percent
- Resists spillage—channels liquids away from critical components
- Optional communication interfaces include Ethernet, RS-232, RS-485, standard USB and powered USB

## Product Overview



1. Fast 80 LPS receipt printing for single-byte (SBCS) or double-byte (DBCS) printing
2. Push button receipt cover opening
3. Easy drop-in paper loading and large four-inch (102 mm) receipt roll helps reduce downtime and training expenses
4. Retail-hardened, spill-resistant design delivers high reliability in the harshest retail environments
5. Extended code page support (27 total) enables worldwide use
6. 3 MB user flash memory supports barcodes, logos, color graphics and TrueType™ fonts
7. A programmable audible alarm can be used to prompt users
8. Paper jam sensor detects jams and reduces waste of receipt media. Paper low sensor is accurate and programmable, reducing labor expenses. Print head and cutter health sensors minimize downtime
9. All Toshiba peripherals are tested, engineered, color coordinated, provide latching connections, are compatible and optimized to work as a total store solution
10. Powered USB and RS-485 connectivity eliminates the need for a separate power brick and conserves counter space
11. Ethernet<sup>®</sup>, standard USB or RS-232 connectivity integrates with Toshiba and third-party POS systems (external power brick or special cable required)
12. Epson Emulation and Compatibility Modes ease transition to new models and enable easy replacement of competitive printers
13. All packaging materials are recyclable and most are made from recycled post-consumer waste
14. An optional wall mounting bracket can be used to save valuable counter space
15. Toshiba SureMark single-station printers INR are available in pearl white and iron gray

## Remote management reduces TCO

Toshiba SureMark single-station printers lower operating costs and total cost of ownership with systems management tools. With Toshiba Remote Management Agent (RMA) and IBM Director software enabled for remote monitoring and control, retailers can keep checkout lanes running smoothly with critical maintenance and environmental information available on demand. Business IT costs are reduced by managing systems, peripherals and applications locally or from a remote site.

## Unique features mean fewer service calls and less downtime

Toshiba SureMark printers are designed with a built-in sensor system that continuously monitors the printer's "health." A paper jam sensor detects jams and reduces waste of receipt media. Print head and cutter sensors minimize downtime by identifying parts that are about to fail so they can be replaced proactively. Additionally, easy drop-in paper loading and a large four-inch (102 mm) receipt roll reduce downtime and training expenses.

## Product Overview



Newly designed packaging (shown on the left—replacing polystyrene materials on the right) includes high-density polyethylene (HDPE) inserts made from recycled post-consumer waste, which reduces the volume of material that must be disposed. (Box and inserts are 100 percent recyclable.)

### Cost cutting design and performance deliver quick ROI

Operating costs are significantly reduced by the easy-to-service design of Toshiba SureMark printers. Covers are easily removed and replaced, helping to reduce costs through better inventory management and accommodating POS and peripherals color changes. Snap-in interface adapters, Ethernet, USB, RS-232 and RS-485 make migration to new system platforms easier and cost effective. Usage statistics are not only available locally but can be acted upon remotely by RMA and can be used to extend printer life with proactive servicing and wear leveling to minimize downtime and extend product life. Fewer service trips means savings in travel and valuable employee time and less impact on the environment.

### Supremely Green! Saving the environment and your bottom line

Toshiba sets new world standards in eco-friendly POS technology with SureMark single-station printers that exceed worldwide environmental directives. Toshiba SureMark printers are designed and built with close attention to earth-saving details. Recycled materials used in manufacturing include iron gray covers, for example, that contain up to twenty-five percent post-industrial recycled material.

Even in the most harsh retail environments, the retail-hardened construction of SureMark single-station printers insures long product life. Upgradeable interface adapters enable “just-in-time” product reconfiguration.

SureMark printers support 1-sided paper, the most sustainable choice for receipt media as well as large drop in paper rolls. So there are fewer paper changes, less environmental impact and importantly, less printer and employee downtime. In fact, using a Toshiba SureMark printer with one-sided paper on a large roll reduces environmental waste and total cost of ownership significantly more than printers with two sided receipt media (2ST™).<sup>3</sup>

### Minimum impact at end of life reduces costs and waste

Toshiba SureMark printer packaging is 100 percent recyclable, including shipping box and inserts. The high-density polyethylene (HDPE) inserts are made from recycled post-consumer waste and can be stacked in very little space, reducing transportation and packaging disposal costs.

Key printer components are made to be “de-manufactured”, so they can be reused as spare parts. Other plastics and metal parts are also recyclable, minimizing the environmental impact of disposal when the product reaches end of life.

### Retail-hardened for lasting performance in harsh environments

Constructed with the highest quality materials available, Toshiba SureMark printers are retail-hardened to deliver a long service life, even in demanding retail environments. For example, an optional spill-resistant top cover is available for food service venues. With a marketing life of up to five years and a service life up to seven years or more, your investment is protected and lifecycle costs are minimized, reducing TCO.

## Use a single printing platform worldwide across your enterprise

A single Toshiba SureMark printer model can support the unique needs of retailers in many countries. An extended code page supports global use and compatibility with leading industry and legacy systems and helps protect technology investments. Designed with open platform technology, the Toshiba SureMark printer enables use of a single POS printing platform across the enterprise.

### Together Commerce

Together Commerce is Toshiba's vision for the new future of retail where retailers adapt their strategies, their stores and their technology to engage with consumers throughout the buying process in a seamless and helpful way. This collaborative approach enables retailers and customers to create mutually rewarding commerce—together

## Trust Toshiba's retail experience

As the world's leading provider of integrated in-store solutions and retail insights, Toshiba Global Commerce Solutions delivers end-to-end solutions for checkout, consumer interactions and retail operations that unlock amazing new possibilities for our clients and shoppers everywhere. In partnership with the Together Commerce Alliance, our global business partner program, we help bring innovation and value to every retailing experience so that you can delight your customers every day, everywhere.

## Low cost financing and leasing options

Now more than ever, retailers depend on Toshiba for POS solutions that boost operational efficiency, shrink costs and provide quick ROI. Financing is available through IBM to help you acquire the IT solutions that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize an IT financing solution to suit your business goals, enable effective cash management, and improve your total cost of ownership.

Model	Availability	Character Set	Single-Pass Check Handling	Cover Color	Warranty Service*
1NR	Worldwide	SBCS and DBCS	No	Pearl White or Iron Gray	Toshiba on-site repair†
1NA	US only	SBCS and DBCS	No	Pearl White or Iron Gray	Toshiba advance exchange‡

### Toshiba SureMark Printer Technical Requirements

#### Models 1NR (1NA)

##### Printing Speed:<sup>§</sup>

Receipt station (one-color paper)	80 lps @ 8 lpi, 60 lps @ 6 lpi
Receipt station (two-color paper)	35 lps @ 8 lpi, 26 lps @ 6 lpi
Printing resolution (thermal)	203 dpi

##### Memory usage:

Data buffer RAM	Dynamic/expandable
Flash memory for microcode	5 MB
Flash memory for offline journal**	Up to 3 MB
Flash memory for logos**	Up to 3 MB
Flash memory for fixed messages**	Up to 3 MB
Flash memory for code pages**	Up to 3 MB

## Product Overview

<b>Toshiba SureMark Printer Technical Requirements</b>	
Flash memory for user characters	64 KB
Interfaces	Ethernet, Powered USB plus standard USB, RS-485, standard RS-232 (external power brick or special power cable required)
Ports	<ul style="list-style-type: none"> <li>• DC In (except RS485)</li> <li>• Ethernet or USB/Powered USB or RS232 or RS485 (24 or 38 V) (Interface card dependent)</li> <li>• OEM Cash Drawer (+24 V)</li> </ul>
CRU (customer replaceable units) with Light-Path management	Not available (available only on 4610 dual-station models)
Sensors	Paper low, paper out, cutter health, print head health, usage counters, paper jam detection
Mounting options	Integrated (Integration tray), Distributed (free standing), optional Wall mount bracket
Support for wide range of receipt media—thickness/type of media	1.6 - 3.7 mil (thousandths of an inch) paper thickness. Factory feature selection of 2.28 in (58 mm) or 3.15 in (80 mm) paper width
Media type supported/roll diameter	Receipt paper rolls—maximum 4 in (102 mm) diameter
<b>Physical Dimensions and Weight</b>	
"Green" attributes	Shipping container and inserts; iron-gray covers made of up to 25 percent post-industrial recycled materials; upgradeable and reusable components; retail-hardened construction for long life
<b>Physical Dimensions and Weight</b>	
Dimensions (WxDxH)	Width: 5.7 in (145 mm); Depth: 7.0 in (177 mm); Height cover closed: 6.3 in (159 mm); Height cover opened: 10.2 in (260 mm)
Weight	Model 1NR: 3.1 lb (1.4 Kg)
<b>Software</b>	
Command Sets	Native, Epson ESC POS™ Emulation††, Compatibility Mode
Operating systems and driver support††	<p>A compatibility mode is provided in the printers to enable use of existing drivers and applications with only minor modifications. Native mode support is as follows:</p> <ul style="list-style-type: none"> <li>• Toshiba 4690 Operating System: <ul style="list-style-type: none"> <li>– RS-232: Direct I/O</li> </ul> </li> <li>• USB and RS-485: V5R2 and V6R2 ** Microsoft Windows XP, Microsoft Windows Embedded for Point of Service (WEPOS) 1.11, Microsoft Windows Embedded POSReady 2009, Microsoft Windows Embedded POSReady 7, Microsoft Windows 7 (Professional/Ultimate): <ul style="list-style-type: none"> <li>– RS-232: Direct I/O, Windows Native Drivers (NWD), OPOS, JavaPOS</li> <li>– RS-485: OPOS, JavaPOS</li> <li>– USB: Windows Native Drivers (NWD), OPOS, JavaPOS</li> </ul> </li> <li>• IBM Retail Environment for SUSE Linux Enterprise Desktop (SLED) 11, SUSE Linux Enterprise Server (SLES) 11, SUSE Linux Enterprise Point of Service (SLEPOS) 11: <ul style="list-style-type: none"> <li>– RS-232: JavaPOS, Direct I/O</li> <li>– RS-485 and USB: JavaPOS, POS Subsystem for Linux (POSS for Windows is not supported)</li> </ul> </li> <li>• SDKs for iOS and Android<sup>4</sup></li> <li>• PC DOS 2000: <ul style="list-style-type: none"> <li>– RS-232: Direct I/O</li> <li>– RS-485 and USB: Not supported</li> </ul> </li> </ul>
Epson compatibility mode	Support is provided for RS-232 connected printers using Direct I/O communications only
Resident barcode formats	UPC A/E, JAN 8(EAN), Code 39, ITF, Code 93, Code 128 a, b, and c, Codabar, PDF417, QR, GS1 databar
Integration kits	Available for most Toshiba POS Systems
Reliability	150 km—thermal print head life. 1.5 million cuts—cutter life
North America	Models 1NR and 1NA (US only)
Latin America	Model 1NR
Europe, Middle East, Africa	Model 1NR
Asia Pacific	Model 1NR



Please Recycle

## For more information

To learn more about Toshiba SureMark single-station printers and other retail store solutions from Toshiba, please contact your local Toshiba representative or visit: [toshibagcs.com](http://toshibagcs.com)

## References

\* All limited warranty items are for one year. For a copy of the terms and conditions of Toshiba's statement of limited warranty, contact your Toshiba representative or reseller.

† Systems with limited on-site service are designed to be repaired during the applicable warranty period primarily with Toshiba supplied replacement parts, installed by trained Toshiba service technicians at the customer's location. Toshiba will only send a technician on-site to perform a repair if (a) the remote telephone diagnosis and/or customer part replacement is/are unable to resolve the problem, or (b) the part is one of the few designated by Toshiba for customer replacement. For a list of customer replaceable parts, contact Toshiba. Support unrelated to a warranty issue may be subject to additional charges.

‡ Model 1NA and Toshiba Advance Exchange warranty are available in the United States only. US customers can request a special bid for Toshiba Advance Exchange post-warranty maintenance.

§ Indicates rated speed. Actual print speed depends on user-specific configuration of interface, application, operating system and drivers.

\*\* A total of 3 MB flash memory can be re-allocated among the following: storage of offline journal, logos, fixed messages, and code pages.

†† Epson emulation mode supports direct communication with the printer using the Epson ESC POS™ command set for printers connected via RS-232 interface (only). Epson emulation is not supported in driver environments.

‡‡ Some printer functions may not be supported by all combinations of operating systems and drivers. See User Guide for more detail. "Please visit the Toshiba support website at [www.toshibagcs.com](http://www.toshibagcs.com) to obtain the latest compatibility data for operating systems, interfaces and Toshiba hardware. The 1NR printer is supported in compatibility mode in 4690 OS V5R2 but requires package 0900 to support firmware updates."

<sup>1</sup> Easy "drop in" loading of 4" receipt rolls vs. 3" receipt rolls. Comparison made by Toshiba on Toshiba SureMark printers

<sup>2</sup> MB equals one million bytes when referring to storage capacity; accessibility may be less.

<sup>3</sup> "Retail Printing: 2-Sided vs. 1-Sided Receipts", IBM Systems and Technology Technical White Paper, 2010. 2ST™ is a trademark of NCR Corporation

<sup>4</sup> Available second quarter of 2014

<sup>5</sup> The optional Ethernet adapter can be installed on printers manufactured on or after June 10, 2013. Contact your Toshiba Representative for more information