MX241P Series

Industrial Barcode Label Printer

The Next Evolution in High-Speed Printing

The MX241P Series industrial thermal printer is ruggedly built for high volume, high quality label printing. Featuring one of the fastest print speeds in its class, the MX241P Series boosts productivity with quicker processing power, communications and printing speeds. It is ideal for applications that include manufacturing, logistics, shipping, and product identification.

The MX241P Series features three different models. The MX241P prints 203 dpi at speeds up to an amazing 18 ips, MX341P offers higher 300 dpi resolution at speeds up to 14-inches per second, and the MX641P features 600 dpi high resolution which makes it ideal for printing very small 2D barcodes, graphics, fine print, and other ultra-high-resolution images.

Capable of seamless connectivity, the MX241P series supports 802.11 a/b/g/n/ac Wi-Fi and Ethernet enabling dynamic remote printer management powered by SOTI Connect and TSC Console that turns the barcode label printer into a connected network. This series will empower you to meet the needs of around-the-clock, mission-critical labeling applications.

Key Features

Sophisticated TSC Sense Care

- Auto scans and detects printhead bad dots during printing
- Support both top and bottom black mark sensors

High-Performance

- High print speed up to 18 ips
- High-precision label registration supports labels as small as 5mm high

Excellent Quality for Micro Labels

- Precise media registration in Tear-off mode (min. 3mm label length)

Dynamic Remote Printer Management

- Supports SOTI Connect through either Ethernet or Wi-Fi
- Powerful TSC Console for printer management

Rugged Structure

- Durable and reliable, delivers outstanding print quality
- State of the art, robust peel-off capability for labels of all sizes

Multi-Connectivity

- GPIO: Supports mainstream connector and emulations
- Wi-Fi: Supports 802.11 a/b/g/n/ac with Bluetooth 4.2 combo module

Applications

Manufacturing

- Package Labeling
- Receiving Labeling

Transportation and Logistics

- Work in Process
- Distribution

Healthcare

- Pharmaceutical Labeling
- Asset Tracking



MX241P Series Specifications

Model	MX241P	MX341P	MX641P
Resolution	8 dots/mm (203 dpi)	12 dots/mm (300 dpi)	24 dots/mm (600 dpi)
Printing Method	Thermal Transfer and Direct Thermal		
Max. Print Speed	457mm (18")/second	356mm (14")/second	152mm (6")/second
Max. Print Width	104mm (4.09")		
Max. Print Length	25,400mm (1000")	11,430mm (450")	2540mm (100")
Enclosure	Die-cast print mechanism with large clear media view window		
Physical Dimension	300mm (W) x 393mm (H) x 510mm (D) 11.81" (W) x 15.47" (H) x 20.08" (D)		
Weight	18 kg (39.68 lbs)		
Max. Roll Capacity	203.2mm (8") O.D.		
Ribbon	600 meter long, max. OD 90mm, 1" core (ink coated outside/inside)		
Ribbon Width	25.4 - 114.3mm (1" - 4.5")		
Processor	32-bit RISC CPU		
Memory	• 512 MB SDRAM, 512 MB Flash memory • microSD Flash memory card reader for Flash memory expansion, up to 32 GB		
Interface	• RS-232 • USB 2.0 • Internal Ethernet, 10/100 Mbps • USB host *2 (Front side), for scanner or PC keyboard • Centronics • GPIO + Centronics (dealer option) • Internal Bluetooth MFi 5.0 (factory option) • 802.11 a/b/g/n/ac Wi-Fi with Bluetooth 4.2 combo module (user option)		
Power	• Internal universal switching power supply • Input: AC 100-240V, 4-2A, 50-60Hz • Output: DC 5V, 5A; DC 24V, 7A; DC 36V, 1.4A; Total 243W		
LCD	16 bits Color, 480 x 272 pixel, with back light, Resistive Touch Screen		
Operation Switch, Button	1 power switch, 6 operation buttons		
Sensors	• Gap transmissive sensor (position adjustable) • Black mark reflective sensor (Bottom or Top black mark sensor switchable and position adjustable) • Ribbon end sensor (transmissive) • Head open sensor • Ribbon end sensor • Ribbon encode sensor • Media capacity sensor		
Real Time Clock	Standard		
Internal Font	• 8 alpha-numeric bitmap fonts • Monotype Imaging® True Type Font engine with CG Triumvirate Bold Condensed scalable font		
Barcode	• 1D bar code Code 39, Code 93, Code128UCC, Code128 subsets A.B.C, Codabar, Interleave 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC 2(5) digits add-on, MSI, PLESSEY, POSTNET, RSS-Stacked, GS1 DataBar, Code 11, China Post • 2D bar code PDF-417, Maxicode, DataMatrix, QR code, Aztec		
Font & Barcode Rotation	0, 90, 180, 270 degree		
Printer Language	TSPL-EZD (Compatible to EPL, ZPL, ZPL II, DPL)		
Media Type	Continuous, die-cut, black mark (Bottom side or top side black mark), fan-fold, notch, perforated, tag		
Media Width	20mm - 114mm (0.78" - 4.49")		
Media Thickness	0.076mm - 0.305mm (2.99mil - 12.01mil)		
Media Core Diameter	76.2mm (3")		
Label Length	3 - 25,400mm (0.1" - 1,000")	3 - 11,430mm (0.1" - 450")	3 - 2,540mm (0.1" - 100")
Environment Condition	Operation: 0°C to 40°C (32°F to 104°F), 25 - 85% non-condensing Storage: -40°C to 60°C (-40°F to 140°F), 10 - 90% non-condensing		
Safety Regulation	BIS, CB, CCC, CE Class B, EAC, FCC Class B, KC, TUV, UL, cUL, C-Tick Class B, BSMI, Mexico CoC, Energy Star®		
Environmental Concern	Comply with RoHS, WEEE		
Accessories	• Windows labeling software CD disk • Quick start guide • USB cable • Power cord		
Limited Warranty	• Printer: 2 years • Print head: 25km (1 million inches) or 12 months which comes first • Platen: 50km (2 million inches) or 12 months which comes first		
Factory Option	• Internal full rewinding kit (Max. 8" OD) • Internal Bluetooth 5.0 MFi		
Dealer Option	• Peel off module assembly • Regular guillotine cutter • Rotary heavy-duty cutter • GPIO (DB15F) + Parallel interface		
User Option	• KP-200 Plus keyboard display unit • 802.11 a/b/g/n/ac Wi-Fi with Bluetooth 4.2 combo module • Universal cutter tray		

Product models and specifications are subject to change without notice.
Printing performance may vary depending on ribbon and media combination used.



CORPORATE HEADQUARTERS
TSC Auto ID Technology Co., Ltd.
Tel: +886 2 2218 6789
E-mail: apac_sales@tscprinters.com

LI ZE PLANT
TSC Auto ID Technology Co., Ltd.
Tel: +886 3 990 6677
E-mail: apac_sales@tscprinters.com

AMERICAS
TSC Auto ID Technology America Inc.
Tel: +1 657 258 0808
E-mail: americas_sales@tscprinters.com

MEXICO
TSC Mexico Representative Office
Tel: +1 52 (33) 3673 1406
E-mail: americas_sales@tscprinters.com

BRAZIL
TSC Brazil Representative Office
Tel: +55 (11) 3554 7225
E-mail: americas_sales@tscprinters.com

EMEA
TSC Auto ID Technology EMEA GmbH
Tel: +49 (0) 8106 37979 000
E-mail: emea_sales@tscprinters.com

RUSSIA
TSC Auto ID Technology EMEA GmbH
Tel: +7 495 646 3538
E-mail: emea_sales@tscprinters.com

MIDDLE EAST
TSC Auto ID Technology ME Ltd, FZE
Tel: +971 4 2533 069
E-mail: emea_sales@tscprinters.com

ASIA PACIFIC
TSC Auto ID Technology Co., Ltd.
Tel: +886 2 2218 6789
E-mail: apac_sales@tscprinters.com

INDIA
TSC India Representative Office
Tel: +91 2249 679 315
E-mail: apac_sales@tscprinters.com

CHINA
Tianjin TSC Auto ID Technology Co., Ltd.
Tel: +86 22 5981 6661
E-mail: apac_sales@tscprinters.com

KOREA
TSC Korea Representative Office
Tel: +82 2 852 3322
E-mail: apac_sales@tscprinters.com

TSC® is a trademark of TSC Auto ID Technology Co., Ltd.
TSC Auto ID Technology Co., Ltd. is an ISO 9001/14001 registered company.
© 2025 TSC Auto ID Technology Co., Ltd.
Product models and Specifications are subject to change without notice.
Contact your TSC sales representative for specific information.
20250807

www.tscprinters.com