

# THERMALINE T5000r ENERGY STAR

## SCALABLE

Multiple emulations allow standardization on a single printer for environments with mixed printer languages

## INNOVATIVE

Open standard XML based platform for non-proprietary printing, job and printer control

## BEST OF BREED

Aluminum die cast design, ventless cooling, and high performance processor for harsh environments and high duty cycle applications

## SMART READY

Field upgradeability supports future RFID requirements



## INDUSTRY LEADING BAR CODE PRINTING TECHNOLOGY

Based on the 5r Multi-Technology Platform, the Thermaline™ T5000r™ ENERGY STAR® family is an industrial thermal bar code printer designed to operate in challenging environments. Through leadership by design, the T5000r combines reliability, utility, power and flexibility for demanding environments and provides the open migration to RFID for future requirements. The T5000r supports the widest range of connectivity and control without sacrificing performance and provides the ability to meet new application and compliance requirements.



The T5000r integrates real world experience that readily adapts to emerging standards. The T5000r firmware can be upgraded to keep pace with new thermal bar code printing innovations and applications.

## GUARANTEED BAR CODE QUALITY

The T5000r delivers dependable and reliable bar code printing for compliance labeling and accommodates higher density bar codes, increased graphics or smaller text with snap-in print heads. When used in conjunction with ODV™ technology (Online Data Validation), the T5000r provides verification of scannable bar codes at the point of label creation. All T5000r printers are designed as RFID Ready and can easily be upgraded with Printronix patented MP2™ encoding technology to read and encode UHF RFID Smart Labels. Combining bar code compliance and RFID technology the T5000r links bar code and EPC data together for storage, retrieval, electronic audits and data synchronization.

## KEY FEATURES

- Products that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy
- 166MHz 32-bit RISC processor for ultra-fast processing and throughput performance
- 64MB SDRAM memory and 16MB Flash with font and image storage capability
- 625m ribbon reduces downtime and supply cost
- Smart Ready design provides the migration path for future RFID implementation 
- Embedded Zebra, TEC, Intermec, Sato, Datamax, Monarch and IER programming language support
- XML forms printing with embedded industry standard forms and templates
- Unicode with TrueType font support for worldwide compliance and local printing requirements
- Printronix Extensible Markup Language (PXML) interface enables real-time printer management and job control

# PRINTRONIX®

# THERMALINE T5000r ENERGY STAR

## T5000r THERMAL PRINTERS

T5000r Thermal transfer or direct transfer  
Industrial grade  
RFID field upgradeable

## SLMP2 UPGRADE KIT

Upgrade the T5000r to RFID with the following upgrade kit:  
- Multi-protocol UHF encoder set to global frequency standards  
- Supports EPCglobal Gen 2 standards  
(Excludes 8" printers T5208r/ T5308r)

## MEMORY

DRAM 64MB standard  
Flash 16MB standard

## PRINTING CHARACTERISTICS

Print Speed  
T5204r-4": 10 IPS @ 203 dpi (254mm/sec)  
T5304r-4": 8 IPS @ 300 dpi (203mm/sec)  
T5206r-6": 10 IPS @ 203 dpi (254mm/sec)  
T5306r-6": 8 IPS @ 300 dpi (203mm/sec)  
T5208r-8": 8 IPS @ 203 dpi (203mm/sec)  
T5308r-8": 6 IPS @ 300 dpi (152mm/sec)

Printing Methods  
Thermal transfer or direct thermal

Resolution  
203/300 dpi (operator interchangeable)

Printable Width  
4.1" max (104mm) (T5204r/T5304r)  
6.6" max (168mm) (T5206r/T5306r)  
8.5" max (216mm) (T5208r/T5308r)

## MEDIA COMPATIBILITY

Media Types  
Roll or fanfold  
Labels, tags and tickets  
Paper, film or synthetic stock  
Thermal Transfer or Direct Thermal

Media Width  
1.0" to 4.5" (T5204r/T5304r)  
2.0" to 6.8" (T5206r/T5306r)  
3.0" to 8.75" (T5208r/T5308r)

Media Thickness  
0.0025" to 0.010"

Roll Core Diameter  
3.0" (7.6 cm)

Maximum Roll Diameter  
8.0" (20.9 cm)

Thermal Transfer Ribbon  
Ribbon Width (min/max)  
1.0" to 4.33" (T5204r/T5304r)  
2.0" to 6.8" (T5206r/T5306r)  
3.0" to 8.75" (T5208r/T5308r)

Maximum Ribbon Length  
625m

## MEDIA HANDLING CHARACTERISTICS

Tear-Off Individual label tear-off  
Tear-Off Strip Label strips tear-off  
Continuous Labels print continuously  
Cut Label cut to length  
Peel-Off Label peel and present  
(peel-off mode requires rewind option)

## MEDIA HANDLING OPTIONS

Rewinder Required for peel and present. Not recommended for batch rewind of RFID labels

Cutter Kit Cuts labels after printing specified number of labels. Not recommended for RFID labels

## OPERATOR CONTROLS & INDICATORS

Operator Controls Off Line-On Line, Test Print, Job Select, Form Feed Menu, Cancel, Enter

Message Display 32 character

Indicators Off Line-On Line, Menu

## BAR CODE VALIDATION

Optional Online Data Validation (ODV) - verifies bar code quality, overstrikes failed bar codes, and reprints a label  
Compatible with RFID encoding

## PROGRAMMING LANGUAGES

Standard Printronix Graphics Language (PGL)†  
Zebra Graphics Language (ZGL)†  
TEC Graphics Language (TGL)  
Intermec Graphics Language (IGL)  
Sato Graphics Language (STGL)†  
Datamax Graphics Language (DGL)  
IER Siège® Graphic Language (IEGL)  
Monarch Graphic Language (MGL)  
XML – Extensible Mark-up Language  
IPDS over Ethernet, Twinax or Coax

Optional

## PROTOCOLS

Optional Telnet TN5250/TN3270

## BAR CODE SYMBOLOGIES AVAILABLE

AUSTPORT, Aztec, BC35, BC412, CODABAR, Code 11, Code 35, Code 39, Code 93, Code 128 (A,B,C), EAN8, EAN13, FIM, I-2/5, German I-2/5, GS1-128, GS1-Databar, GS1-DATAMATRIX, IMB, Interleaved 2/5, ITF14, Matrix, MAXICODE, MSI, PDF417, PLANET, PLESSEY, POSTNET, POSTBAR, ROYALBAR, TELEPEN, UPC-A, UPC-E, UPC-E0, UPCSHIP, UPS11

## SENSING METHODS

Transmissive, Reflective (Gap, Mark, Notch, Continuous Sensing Form)

## INTERFACES

Standard Ethernet (supports PrintNet Enterprise and PXML)  
RS232 Serial  
IEEE 1284 (Centronics)  
USB 2.0

Optional Wireless (802.11b/g, 54mbps)††  
128bit WEP  
WPA-PSK / TKIP (Personal)  
WPA2-PSK / AES CCMP (Personal/Enterprise)  
PEAPv0 MSCHAPv2, LEAP, TTLS (supports PrintNet Enterprise and PXML)  
Coax/Twinax  
GPIO (General Purpose Input/Output)

## FONTS, GRAPHICS SUPPORT, WINDOWS DRIVERS

Fonts OCR-A, OCRB, Courier, Letter Gothic, CG Times, CG Triumvirate, CG Triumvirate Bold, CG Triumvirate Bold Condensed

Character Set Unicod with TrueType font support

Graphic Support PCX, BMP and TIFF file formats

Windows Drivers Microsoft Windows NT/2000/XP/Vista/7

## ELECTRICAL REQUIREMENTS

Line Input 90-264 VAC (48-62Hz) PFC  
Power Consumption 150 watts (typical)  
Regulatory Compliance IEC60950-2, EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, FCC Part 15 Class B

## ENVIRONMENTAL FACTORS

Operating Temperature 5°C to 40°C

Dimensions  
11.7" W x 20.5" L x 13.0" H (T5204r/T5304r)  
13.4" W x 20.5" L x 13.0" H (T5206r/T5306r)  
15.4" W x 20.5" L x 13.0" H (T5208r/T5308r)

Printer Weight/Shipping Weight  
37lbs/46lbs (T5204r/T5304r)  
40lbs/49lbs (T5206r/T5306r)  
43lbs/52lbs (T5208r/T5308r)

Printronix offers a wide selection of RFID label sizes and inlay designs as well as thermal transfer ribbons. To learn more about RFID labels and supplies or to place an order, visit [www.rfid.primtronix.com](http://www.rfid.primtronix.com) or call 800-733-1900.

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† Includes RFID commands  
†† USA, Canada, & European Union only