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### **THERMAL PRINTING TODAY WITH TECHNOLOGY FOR TOMORROW**

Based on the 5r Multi-Technology Platform, the Thermaline™ T5000r 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.

## **5r** **MULTI-TECHNOLOGY PLATFORM** *leadership by design*

### **SCALABLE**

Multiple embedded emulations allow users to standardize 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 industrial design, ventless cooling, and high performance processor ideal for rugged environments

### **BUILT FOR CHANGE**

Snap-in print heads allow operators to replace print heads and change resolution without service calls

### **SMART READY**

Field upgradeability supports future RFID 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.

### **KEY FEATURES**

- 32-bit processor for ultra-fast processing and throughput performance
- 32MB SDRAM memory and 8MB 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 and Datamax 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

### **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. Designed as RFID Smart Ready, the T5000r converts to an UHF RFID printer encoder as RFID requirements enter the supply chain. Combining bar code compliance and RFID technology the T5000r links bar code and EPC data together for storage, retrieval, electronic audits and data synchronization.

**T5000r THERMAL PRINTERS**

T5000r Thermal transfer or direct transfer Industrial grade RFID field upgradeable

**FIELD UPGRADE KIT**

Upgrade the T5000r to RFID with the following upgrade kit

SLMP2 Kit Multi-protocol UHF encoder set to global frequency standards Supports EPCglobal Gen 2 standards  
(Excludes 8" printers (T5208r/ T5308r))

**MEMORY**

DRAM 32MB standard  
Flash 8MB standard (16MB optional)

**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)

**RFID ENCODING (OPTIONAL UPGRADE KIT)** (Excludes 8" printers (T5208r/ T5308r))  
UHF encoder set to global frequency standards; supports EPCglobal Class 0, 0+, 1, Gen 2 and Philips UCode 1.19 standards

Operation Modes Write/Verify/Print – writes RFID data to tag and verifies contents are written correctly, while also printing the desired image

Error Handling Modes Overstrike – when a bad RFID tag is detected, overstrikes label and applies the data to the next label  
Stop – when a bad tag is detected, stops the printer to allow for user intervention

Statistics Tracking Tracks number of tags written to and number of bad tags detected

**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

**MIDCOM Data Technologies****OPERATOR CONTROLS & INDICATORS**

Operator Controls Off Line-On Line, Test Print, Job Select, Form Feed Menu, Cancel, Enter  
32 character  
Message Display  
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)\*  
XML – Extensible Mark-up Language

\*Printer Protocol Interpreters for ZPL, TEC, IPL, Sato and DPL with RFID commands for ZPL and Sato only

Optional IPDS over Ethernet, Twinax or Coax

**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), DATAMATRIX, EAN8, EAN13, FIM, 125GERMAN, Interleaved 2/5, ITF14, Matrix, MAXICODE, MSI, PDF417, PLANET, PLESSEY, POSTNET, POSTBAR, ROYALBAR, RSS14, TELEPEN, UCC/EAN-128, UPC-A, UPC-E, UPC-E0, UPCSHIP, UPS11

**SENSING METHODS**

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

**INTERFACES**

Standard RS232 Serial  
IEEE 1284 (Centronics)  
USB 2.0  
Optional Ethernet (supports PrintNet Enterprise and PXML)  
Wireless (802.11b) (supports PrintNet Enterprise and PXML)  
Coax/Twinax  
GPIO (General Purpose Input/Output)

 **FONTS, GRAPHICS SUPPORT, WINDOWS DRIVERS**

Fonts OCRA, OCRB, Courier, Letter Gothic, CG Times, CG Triumvirate, CG Triumvirate Bold, CG Triumvirate Bold Condensed

Character Set Unicode with TrueType font support  
Graphic Support PCX, BMP and TIFF file formats  
Windows Drivers Microsoft Windows NT/2000/XP

**POWER REQUIREMENTS**

Line Input 90-264 VAC (48-62Hz) PFC  
Power Consumption 150 watts (typical)  
Regulatory Compliance FCC-B, UL, CSA, ETSI EN 300 220, CE

**ENVIRONMENTAL CONSIDERATIONS**

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)