

## 3" Thermal Printers, Wireless Communications

### Advantages

- Designed to withstand the rigors of mobile computing applications
- Integrated Bluetooth™ module for peer-to-peer communication up to 30 feet (optional)
- Integrated 3 track magnetic card reader (optional)
- Easy to load and to wear: lightweight belt loop system included
- RS-232 Serial and IrDA wireless communication included as standard
- Battery recharges in less than 90 minutes
- Low power consumption
- Flash memory for downloadable options including fonts and graphics
- Bar code capability for machine readable receipts



### S3500T Design Details

#### Microcomputer-based printer controller:

- Philips CPU on highly integrated circuit board manages all the features supported by the printer
- Flash and SRAM memory allows for optional features
- Reprogrammable PROM for program and printer dot tables

#### Low power precision regulator circuits:

- 8 bit 2 channel A/D circuit to measure system and printer mechanism voltage levels, battery and thermal print head temperature
- Fail safe and CPU watchdog circuits; Auto shut-off feature
- Fast charge circuit with auto switch to trickle charge

#### Fujitsu thermal print head

(up to 2" per second at 7.2V)

- Easy paper load system with T-shaped door pull for ease of opening
- Thermal print contrast control (voltage and temperature dependent)
- High speed, high resolution print;
- Built-in detectors to monitor head temperature, voltage, paper-out

#### Easy integration for developers:

- Multiple Communication Interfaces
- MS-DOS and Windows compatible with full-speed handshake
- Print Drivers available for Windows 95,98, 2000, XP
- Print Utilities for Windows CE, Pocket PC and Palm operating system.

#### Easy to use Operator Interface:

- Power ON/OFF switch
- Paper feed momentary switch
- Printer <ready>, <charge>, and <fault> LED indicators
- Built-in self-test

#### Special Features:

- Graphics emulation
- Resident fonts to enable printing from 12 to 24 characters per inch
- Protective environmental case
- Flash based Waferscale PROM contains 256 bytes flash for firmware, resident fonts, optional rotated fonts, downloadable fonts, graphics, logos, and bar codes.



## Print Mechanism:

<b>Printing Method:</b>	Thermal dot line printing
<b>Dot Per Line:</b>	576
<b>Number of heat elements:</b>	2 heater/dot, 142 ohms/dot
<b>Printing Width:</b>	70mm
<b>Resolution:</b>	8 dots/mm
<b>Paper feed pitch:</b>	0.125mm
<b>Printing speed:</b>	50mm/sec @ 6 Volts, between 4 & 7 lines/sec
<b>Head Temperature detection:</b>	By thermistor, hardware protection against overheating
<b>Paper-out/TOF detection:</b>	By photo interrupter
<b>Operating Voltage:</b>	5V
<b>Current Consumption:</b>	3.8A @ 64 dots
<b>Reliability:</b>	50 million mean characters until fail @25% pulse

## Standard Operating Features:

<b>Character set:</b>	ASCII International and IBM Graphic sets
<b>Graphic print:</b>	Bit addressable graphic command set; graphic logo store and print. Black Mark Sensing
<b>Bar codes:</b>	Codes 39,128, 2 of 5, UPC-A, UPC-E, UPC/EAN-8, UPC/EAN-13, Codabar.
<b>Supervised operation:</b>	Supervisory command set to read battery voltage, buffer status and power management
<b>Line Buffering:</b>	32KB standard
<b>Characters per line:</b>	36 48 57, 60, 63, 72 (s/w command)
<b>Character Size:</b>	3x2 3x1.5 3x1.15 3x1.5 (HxW mm)
<b>Print contrast:</b>	Auto and user selectable
<b>Print Output:</b>	Double high, double wide and bold print

## Communication:

<b>Interface:</b>	RS232C and IrDA standard—Bluetooth option
<b>Baud Rate:</b>	2.4k, 9.6k, 19.2k, 38.4k baud, dip switch selectable
<b>Fast IrDA Transfer Speed:</b>	Up to 38.4K depending on computer capability
<b>Std.IrDA Transfer Speed:</b>	9600 connect and transfer
<b>Handshaking:</b>	CTS/RTS and/or XON/XOFF

## Print Media:

<b>Paper Width:</b>	80mm (3.125 inches) or 57mm (2.25")
<b>Lines of Print/roll:</b>	4400 (1.4" diameter roll, approx. 48' long)
<b>Paper Rolls per Charge:</b>	>6 (approx 810 receipts)
<b>Lines Per Charge:</b>	26,000 (4" receipt followed by 60 sec delay; repeat)

## Power:

<b>Power:</b>	Removable rechargeable battery
<b>Battery:</b>	5 cell NiMH 1500mAH rechargeable (AA cells)
<b>DC Power Pack:</b>	10V/1.4A UL listed
<b>Battery Recharge:</b>	Internal Fast 90-120 min fast charge with auto switch to trickle charge; Over current and overheat protection
<b>Power ON/OFF:</b>	Via switch or by raising RTS (ON) or lowering RTS (OFF); Auto power down timer

## User Interface:

<b>Status indicators:</b>	3 LEDs - Power on, Charging, Fault/Option Ready
<b>User switches:</b>	2 switches – On/Off, Feed
<b>Connection:</b>	RJ type (6 pin) for Data I/O; DC input Power Jack for wall mount adapter; Infra-Red (IrDA) with Ambient Light Filter Integrated Bluetooth radio module (optional) Integrated magnetic card reader (optional)
<b>Mechanical Dimensions:</b>	6"x4.75"x2.25") WxLxH
<b>Weight:</b>	580g (20oz) with paper and battery pack
<b>Warranty:</b>	One year standard (3 years available at extra charge)
<b>OEM Products:</b>	Design services available

## Environmental Specifications:

<b>Operating Temperature:</b>	-10° to 50°C
<b>Storage Temperature:</b>	-20° to 60°C
<b>Humidity:</b>	Up to 90% RH (non-condensing)
<b>Drop:</b>	Exceeds industry standard for drop
<b>Agency Approvals:</b>	FCC: Part 15 Subpart B, Class B CE: EN60950 CE: EN55022 Class B; CE: EN61000-3-2; CE: EN61000-3-3; CE: EN50024. AS/NZ: 3548 Class B Complies with EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC Conforms to ANSI/UL STD 60950 & Certified to CAN/CSA STD C22.2 No. 60950-00 CB Certified ETL Listed, control # 3046813 IEC 68 certified

## Ordering Information:

<b>Printer:</b>	
<b>781181I</b>	S3500T with RS-232 and IrDA Interface (US Style Adapter)
<b>7811812</b>	change last digit to 2 for Euro style Adapter
<b>7811814</b>	change last digit to 4 for UK style Adapter
[ ]	add "R" for 3-track MCR (e.g. 7811812R)
[ ]	add "-S" for smart card reader (e.g. 7811812R-S)
[ ]	add "-1" for Bluetooth option (e.g. 7811812-1)
<b>Accessories:</b>	
<b>151131</b>	Power Adapter, 12-16 VDC input vehicle adapter
<b>756998</b>	Belt Loop System (included as standard)
<b>757351</b>	Shoulder Strap
<b>757061</b>	Spare paper, pkg. of 5 rolls
<b>7A100005</b>	Spare battery (1500 mAh)
<b>7A100012</b>	Spare battery (new 1800 mAh; Available 04/04)
<b>5892RJD9</b>	Coiled Cable (RJ to D9)