

S2500THS Series Lightweight Portable Receipt Printer

✓ Easy to wear all day long

- Lightweight - weighs less than a pound (with paper and battery)
- Compact, contemporary design without sacrificing performance
- Rugged - over-molded for added durability

✓ Trouble-free Operation

- Ready to use - portable version comes complete with paper, belt loop system, universal adaptor, and battery
- State-of-the-Art Integrated Micro-Processor
 - Flash Memory – Add logos, Bar Codes and other Graphic Elements
 - Faster Printing – Reduces Print Time per Receipt
- High Capacity Lithium-Ion Battery – More Receipts per Charge
- In-field Programming – Upgrade Firmware, Download Fonts and Logos
- Easy load clamshell style paper load system with press button release for paper door
- 12 month warranty (including printhead)
 - Optional extended warranty programs available

✓ Multiple communication options

- RS232
- Field tested, robust IrDA communication system
- Optional integrated Bluetooth™
- Optional 3-Track Magnetic Card Reader

✓ Typical Applications

- Field Service: Invoicing and Credit Card Receipts
- Route Accounting: Presales and DSD
- Ticketing: Transportation and Public Safety
- Mobile POS and Hospitality



S2500 Design Details:

Power:

- Powered by high capacity Lithium-Ion battery cartridge (7.4V; 2200 mAh)
- Battery charges internally to the printer or in external battery charger

Highly Integrated Microcontroller by ST-Microelectronics:

- Flash based integrated CPU contains firmware, resident fonts, rotated fonts, downloadable fonts, graphics, logos, and bar codes
- Incorporates Flash and SRAM memory
- Manages all the features supported by the printer

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

Seiko Thermal Print Head

- High speed (rated up to 2" per second -- voltage, application and temperature dependent) and high resolution print
- Automatic thermal print contrast control (voltage and temperature dependent)
- Built-in detectors to monitor voltage and paper-out.

Easy to Integrate:

- Multiple communication interfaces including Serial, IrDA and Bluetooth™
- MS-DOS and Windows compatible with full-speed handshake
- Print drivers available for Windows 95, 98, 2000, XP
- Print utilities available for most Mobile Operating Systems (including Windows CE, Pocket PC, .NET, WM5 and Palm)

Special Features:

- Resident fonts to enable printing from 12 to 24 characters per inch
- Printer is in-field programmable for firmware, font and logo setup
- Protective over-molding for heavy duty field use
- Optional integrated 3-Track Magnetic Card Reader
- Two-bay battery charger



S2500THS in environmental case



S2500THS with Magnetic Card Reader

Print Mechanism:

Printing Method:	Direct Thermal
Print Resolution:	203 dpi/ 8 dots mm
Dots per Line:	384
Printing Width:	1. 89" (48mm)
Paper Feed Pitch:	0.125mm
Printer Speed:	Up to 2" per second (50mm/sec) @ 7.2 Volts (actual print speed is dependent on state of battery, temperature and nature of application)
Number of Heat Elements:	2 heater/dot, 142 ohms/dot
Head Temperature Detection:	By thermistor with hardware protection against overheating
Paper-out/Q-Mark/TOF Detection:	By photo interrupter
Operating Voltage:	5V
Current Consumption:	3.8A @ 64 dots
Reliability:	100 million MCTF (mean characters until fail) @ 25% density

Operating Characteristics:

Character set:	ASCII International, PC Line Draw
Additional Character Sets:	Simplified Chinese, Hebrew, Arabic, Polish, Korean
Optional Character Sets:	Downloadable fixed-width fonts
Graphic print:	Supports 8-bit graphic printing, customs fonts and logo downloading
Bar code Symbolologies:	
Linear:	Codes 39, Code128, UCC/EAN-128, Interleaved 2 of 5, UPC-A,UPC-E, EAN/JAN-8, EAN/Jan-13, Codabar, PDF417
2 Dimensional:	PDF417
Supervisory commands:	Commands available to read battery voltage, buffer status, firmware and hardware version
Memory:	
SRAM:	32K standard as cache memory (fast, low power memory)
Flash:	256K + 32K for program and tables plus downloaded features
Characters per line:	24, 32, 38, 40, 42, 48 (s/w command)
Print contrast:	Auto and user selectable
Special Print	
Character Attributes:	Double high, double wide and bold print

Communication:

Interface:	
Standard:	RS232C (up to 38.4K depending on computer capability) IrDA (up to 38.4K depending on computer capability)
Optional:	Bluetooth™ V2.0 (optional)
Dip Switch Selectable	
Baud Rate:	2400 – 38.4K
Handshaking:	Hardware (CTS/RTS) and/or Software (XON/XOFF)

Print Media:

Media Type:	Direct Thermal Paper and Tag Stock; Limited Label Support (Standard paper is Kansaki P390)
Paper Width:	2.25" (57mm)
Max Roll Size:	56' length @ OD: 1.5" using standard paper
Roll Core ID:	0.4"
Lines of Print/Roll:	5200 (1.5" diameter roll, 0.4" core, approx. 56' long)
Paper Rolls per Charge:	~ 9
Lines per Charge:	~ 47,000 (4" receipt followed by 60 second delay then repeat)

(For optimum print quality and printer performance, use Extech supplied paper)

Power:

Battery:	Internal rechargeable 2 cell Lithium-Ion (7.4V; 2200 mAh)
Battery Life:	80% of original capacity after 300 cycles (typical)
Recharging:	3 hours @ fast rate charge (at empty)
External Charging Options:	
DC Power Pack:	100V – 250V AC input, 10V/1.4AC UL listed adapter standard (in-printer charging)
In-Vehicle Charger:	12V/24V Cigarette Lighter adaptor
Power ON/OFF:	Power ON/OFF switch, or by raising RTS input; or sending a single character through serial input. Auto power down timer, can be set or disabled through user application.

Software:

Extech Logo Downloading utility
Extech Bluetooth™ Configuration utility

User Interface:

Status indicators:	3 LEDs (2 are multifunctioning) - Power/ERROR, Charging, Ready/Fault
User switches:	2 switches – Power On/Off, Feed
Connection:	RJ type (6 pin) for Data I/O Infra-Red (IrDA) with Ambient Light Filter Bluetooth™ V2.0 (optional) 3-Track Magnetic Card Reader (optional)

Mechanical:

Construction:	Cyclac KJW Enclosure with elastomer for extra protection
Dimensions:	4.2"W x 5.4"L x 2.7"H (107W x 138L x 68H mm)
Weight:	
Printer Only:	11.5 ounces (357g)
Printer with paper and battery:	1 lb (465g)
Warranty:	
Standard:	One year standard
Optional:	Up to 5 year programs available at extra charge
OEM Products:	Design services available

Environmental Specifications:

Operating Temperature:	14° to 122°F (-10° to 50°C)
Storage Temperature:	-4° to 140°F (-20° to 60°C)
Charging Temperature:	32° to 122°F (0° to 50°C)
Humidity:	10 - 90% RH (non-condensing)
Drop:	Exceeds industry standard for drop

Agency Approvals:

FCC: Part 15 Subpart B, Class B	Conforms to ANSI/UL STD 60950 and Certified to CAN/CSA STD C22.2
CE: EN60950	No. 60950-00
CE: EN55022 Class B;	CB Certified
CE: EN61000-3-2;	ETL Listed, control # 3046813
CE: EN61000-3-3;	IEC 68 Certified
CE: EN50024	GS Certified, #04US00384-1
AS/NZ: 3548 Class B	IP54 Rated (with Environmental Case)
Complies with EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC	

Ordering Information:

The S2500THS series comes standard with IrDA, RS-232, battery, 1 roll of paper, Universal AC Adaptor (180-minute Fast Charge), Belt Loop System and a 1 year warranty that includes the print head.

7832811	S2500T with RS-232 and IrDA Interface (Universal Adaptor)
[]	add "R" for 3-Track Magnetic Card Reader (e.g. 7832811R)
[]	add "-1" for Bluetooth option (e.g. 7832811R-1)

Accessories:	
756983	IP54 Certified Environmental Case
757351	Shoulder Strap with Quick Clip
756998-2	Spare Belt Loop System
757060	Spare paper, pkg. of 5 rolls
757060-CASE	Spare paper (Case of 200 rolls)
7A100014	Spare battery (2200 mAh)
767400-1	2-bay battery charger (US plug)
767400-2	2-bay battery charger (EURO plug)
767400-4	2-bay battery charger (UK plug)
157260	Universal Adaptor – (US, UK, EURO & Australian)
5892RJD9	Coiled Cable (RJ to D9)
151133	12V/24V In-Vehicle Adaptor (with battery in printer)

Specifications subject to change without notice

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