

## Andes 3

### 3" (80mm) Heavy Duty Receipt/Label Printer for Multiple Applications

- ✓ **Prints receipts, tags, or labels**
- ✓ **Lightweight and Rugged**
  - Injection molded ABS/PC blend with elastomer over-molds for extra protection
  - High impact resistance and high temperature strength
  - Chemical and UV resistance and flame retardant
- ✓ **Clamshell design to fit larger paper roll**
  - Holds extra large paper roll
  - Transparent door inserts – see when paper roll is running low
  - Double locking paper door closure
  - Metal tear bar
- ✓ **Interface and communications options galore**
  - Serial and USB (Q3)
  - Wireless: IrDA, Bluetooth™ or 802.11b/g (Q3)
  - MCR – 3-Track Magnetic Card Reader and/or Smart Card (Q4)
- ✓ **Trouble-free Operation**
  - Ready to use – comes complete with paper, adapter and battery
  - Over-molding for additional protection
  - Highly Integrated Arm-7 32 bit Microcontroller:
    - 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 – Update Firmware, Download Fonts and Logos
  - Drop in Paper Loading System
  - 12 Month Warranty (including printhead)
    - Optional Extended Warranty Available



#### Andes 3 Design Details:

##### Power:

- Powered by high capacity Lithium-Ion battery cartridge (7.4V; 2200mAh)
- Battery charges internally to the printer or in external 2-bay battery charger
- AC Power charging adapter for charging with battery in printer
- Direct vehicle battery input (10.8 to 30VDC)
- Vehicle docking station (available 2nd Quarter)
- Hardware and Software power management

##### Highly Integrated 32 Bit Arm 7 Microcontroller:

- Flash based Integrated CPU contains firmware, resident fonts, rotated fonts, downloadable fonts, graphics, multiple logos, and bar codes (Linear and 2-D)
- Internal and external memory - with 4MB Flash and 1MB SRAM memory under direct user control
- Manages all the features supported by the printer

##### Low Power Precision Regulator Circuits:

- 10 bit 4 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:

- Easy Load Clamshell style paper load system with slide button release for paper door

- Automatic thermal print contrast control
- High speed, high resolution print
- Built-in detectors to monitor voltage and paper-out

##### Easy to Integrate:

- Multiple Communication Interfaces including IrDA, Bluetooth™ and 802.11b/g
- 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, .NET CF, WM5 and Palm)

##### Special Features:

- Page printing utility (Form Fiesta)
- Voltage boost circuit for speed and contrast management
- Various resident fonts to enable printing from 12 to 24 characters per inch
- In-field programmable for firmware, fonts and logo setup
- 2 Sensors in 3L version
- Allows for default parameters to be in-field customized
- Two-bay battery charger
- Multiple color LEDs for user feedback
- Direct Memory Access and USB file system

## Print Mechanism:

<b>Printing Method:</b>	Direct Thermal
<b>Print Resolution:</b>	203 dpi/ 8 dots mm
<b>Dots per Line:</b>	576
<b>Printing Width:</b>	2.83" (72mm)
<b>Paper Feed Pitch:</b>	0.125mm
<b>Printer Speed:</b>	Mechanism is rated at 3.35" per second (85mm/sec) @ 7.5 Volts (actual print speed is application, temperature and communication dependent)
<b>Number of Heat Elements:</b>	1heater/dot, 170 ohms/dot
<b>Head Temperature Detection:</b>	By thermistor with hardware protection against overheating
<b>Paper-out/Q-Mark/ (TOF) Detection:</b>	By photo interrupter
<b>Reliability:</b>	100 million MCTF (mean characters until fail) @ 12.5% density

## Operating Characteristics:

<b>Character set:</b>	ASCII International, PC Line Draw
<b>Additional Character Sets:</b>	Simplified/Traditional Chinese, Hebrew, Arabic, Polish, Korean, Vietnamese, Turkish
<b>Optional Character Sets:</b>	Downloadable fixed-width fonts
<b>Graphic print:</b>	Supports 8-bit graphic printing, page printing, custom fonts and logo downloading
<b>Bar code Symbologies:</b>	
<b>Linear:</b>	Codes 39, Code128, UCC/EAN-128, Interleaved 2 of 5, UPC-A, UPC-E, EAN/JAN-8, EAN/Jan-13, Codabar, PDF417 (Q2)
<b>2 Dimensional:</b>	
<b>Supervisory commands:</b>	Commands available to read battery voltage, buffer status, firmware and hardware version
<b>Memory (Available to User):</b>	
<b>SRAM:</b>	64KB (internal to CPU reserved for system application) 1MB (external under user control)
<b>Flash:</b>	256KB + 16KB (internal to CPU reserved for system application and resident features) 4MB (external under user control)
<b>Characters per line:</b>	36, 48, 57, 60, 64, 72, 96 (s/w command)
<b>Print contrast:</b>	Auto and user selectable
<b>Print Character Attributes:</b>	Double high, double wide, bold print, underline print, line spacing and reverse print

## Communication:

<b>Interface:</b>	
<b>Standard:</b>	RS232C (up to 115.2KB depending on computer capability) USB (Q2) IrDA (up to 38.4K depending on computer capability)
<b>Optional:</b>	Bluetooth™ V2.0 (optional) WLAN 802.11b/g (optional)
<b>Dip Switch Selectable</b>	
<b>Baud Rate:</b>	2400 – 115.2Kb
<b>Handshaking:</b>	Hardware (CTS/RTS) and/or Software (XON/XOFF)

## Print Media:

<b>Media Type:</b>	Direct Thermal Paper, Tag Stock and Label Stock
<b>Paper Width:</b>	3.125" (80mm)
<b>Max Roll Size:</b>	130' @ OD: 2.2" (Standard receipt paper provided is Kansaki P390; other grades available)
<b>Roll Core ID:</b>	0.4"
<b>(For optimum print quality and printer performance, use Extech supplied paper)</b>	

## Power:

<b>Battery:</b>	Internal rechargeable 2 cell Lithium-Ion (7.4V; 2200 mAh)
<b>Battery Life:</b>	80% of original capacity after 300 cycles
<b>Recharging:</b>	3 hours @ fast rate charge (at empty)
<b>External Charging Options:</b>	
<b>DC Power Pack:</b>	100-240V AC input, 10V/1.4 A DC output
<b>In-Vehicle Charger:</b>	12V/24V Cigarette Lighter adapter
<b>Power ON/OFF:</b>	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  
Extech Form Fiesta page printing utility  
Extech 802.11b/g configuration utility (Q3)

## User Interface:

<b>Status indicators:</b>	4 LEDs (3 are multi functioning) - Power/Communication Mode, Battery Status/Charging, MCR, Error
<b>User switches:</b>	2 switches – On/Off, Feed
<b>Connection:</b>	RJ type (6 pin) for Data I/O Infra-Red (IrDA) with Ambient Light Filter Bluetooth™ v 1.2 (optional) WLAN 802.11b/g (optional) Magnetic Card Reader (optional) Smart Card Reader (optional)

## Mechanical:

<b>Construction:</b>	Cyclocac KJW Enclosure with elastomer over-molds
<b>Dimensions:</b>	4.75"W x 6.5"L x 3.5"H (120W x 165L x 89H mm)
<b>Weight:</b>	
<b>Printer Only:</b>	1.6 lbs (650g)
<b>Printer with paper and battery:</b>	2.2 lbs (967g)
<b>Warranty:</b>	
<b>Standard:</b>	One year standard
<b>Optional:</b>	Up to 5 year programs available at extra charge
<b>OEM Products:</b>	Design services available

## Environmental Specifications:

<b>Operating Temperature:</b>	14° to 122°F (-10° to 50°C)
<b>Storage Temperature:</b>	-4° to 140°F (-20° to 60°C)
<b>Charging Temperature:</b>	32° to 122°F (0° to 50°C)
<b>Humidity:</b>	10 - 90% RH (non-condensing)
<b>Drop:</b>	Exceeds industry standard for drop (all sides and corners to steel)

## Performance Specifications:

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

## Ordering Information:

The Andes 3 comes standard with IrDA, RS232, USB (Q3), battery, 1 roll of paper, shoulder strap, universal adapter and a 1 year warranty

7932811	Andes 3 with IrDA Interface
[ ]	add "R" for Magnetic Card Reader (i.e. 793281R)
[ ]	add "S" for Smart Card Reader
[ ]	add "RS" for MCR and Smart Card Reader
[ ]	add "-1" for Bluetooth option (i.e. 793281R-1)
[ ]	add "-2" for 802.11b/g

## Accessories:

151133	12/24V In-Vehicle adapter (Battery in printer)
756998-1	Belt Loop System
757352	Shoulder Strap
157260	Universal Wall Mount Charging AC Adapter (US, UK, Euro and AUS plugs included)
757068	Spare paper, pkg. of 5 rolls
757068-CASE	Spare paper (case of 200 rolls)
7A100014	Spare battery (2200 mAh)
767400-1	Battery charger (2-Bay) 120VAC
767400-2	Battery charger (2-Bay) 220VAC
767400-4	Battery charger (2-Bay) 240VAC
5892RJD9	Coiled Cable (RJ to D9)

Specifications subject to change without notice

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