

Alpha-40L RFID

Mobile RFID Label Printer

Fulfill UHF RFID Label Printing and Encoding in Demanding Environments

Printhead

- Self-Diagnostic TPH Care mechanism detects bad dot for high-quality printouts

UHF RFID

- RAIN UHF compliant
- High speed RFID encoding and validation
- RFID auto calibration for easy setup
- Versatile 2" to 4" wide UHF RFID label support

Media

- Width: 50.8 ~ 112mm
- Capacity: max. OD 67mm
- Type: die-cut, black mark, receipt, fan-fold, continuous (outside wound)

2.3" LCD Color Display

- Intuitive icon menu
- Seven-key control panel for easy navigation



Smart Battery

- Capacity: 6,200mAh
- Battery Management System (BMS) to monitor battery health and capacity

Media Sensor

- Gap sensor
- Black mark sensor on printing surface & backside

Full Line of Accessories

Seamless Connectivity

- NFC tap-to-pair for Bluetooth
- 802.11 a/b/g/n/ac Wi-Fi with Bluetooth 4.2
- Certified MFi Bluetooth® 5.0

Durable Design

- IP 54
- MIL-STD-810G drop & vibration
- 1.8m drop and 500 tumbles at 1m

Non-Slip Design

- Streamlined and rubber over molded design for comfortable handhold experience

Alpha-40L RFID | Datasheet

Model	Alpha-40L RFID		
Resolution	8 dots/mm (203 dpi)		
Printing Method	Direct Thermal		
Max. Print Speed	Up to 5 ips		
Max. Print Width	104mm (4.09")		
Max. Print Length	2,794mm (110")		
Enclosure	Plastic with rubber over molded		
Physical Dimension (W x H x D)	160mm x 191mm x 79mm (6.30" x 7.52" x 3.11")		
Weight (Including Battery)	1,025 g (2.26 lbs)		
Drop Specification	1.8 m (6 ft), with IP54 case can be 2.5 m (8.2 ft)		
IP Rating	IP54 (w/o case, paper path is excluded)		
Max. Roll Capacity	67mm OD		
Processor	32-bit RISC CPU		
Memory	Standard: 128 MB SDRAM, 128 MB Flash, microSD card reader for Flash memory expansion, up to 32 GB Factory Option: 256 MB SDRAM, 512 MB Flash, microSD card reader for Flash memory expansion, up to 32 GB		
Interface	Either one selected Type C USB 2.0 + MFi Bluetooth® 5.0 + Passive NFC tag Type C USB 2.0 + 802.11 a/b/g/n/ac with Bluetooth® 4.2 + Passive NFC tag <small>*Type C is for communication only.</small>		
Power	7.4V DC, 6,200mAh Li-ion rechargeable smart battery		
Operation Button	7 buttons (Power, Feed/Pause, Menu, Navigation keys)		
User Interface	2 LED indicators (battery charging status, printer status) 2.3" color LCD display, 320 x 240 pixels		
Sensors	Reflective sensor	Transmissive sensor	
Real time Clock	Standard		
Internal Fonts	8 alpha-numeric bitmap fonts Monotype Imaging® true type font engine with one CG Triumvirate Bold Condensed scalable font		
Barcode	1D barcode: Code128UCC, Code128 subsets A, B, C, EAN128, Interleaved 2 of 5, Interleaved 2 of 5 with check digit, Standard 2 of 5, Industrial 2 of 5, Code39, Code39 with check digit, Code93, EAN13, EAN8, UPCA, UPCE, EAN and UPC 2 (5) digits add-on, Codabar, Postnet, MSI, MSI with check digit, PLESSEY, China post, ITF14, EAN14, Code11, TELEPEN, TELEPEN number, PLANET, Code49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS 2D barcode: CODABLOCK F mode, GS1 DataBar, GS1 DataMatrix, Maxicode, AZTEC, PDF417, QR Code, Micro PDF417, TLC39		
Printer Language	Print: TSPL-EZC (EPL2, ZPL2, CPCL), or ESC-POS RFID: TSPL, ZPL2		
RFID	RAIN UHF Passive (GS1 EPC Gen2 v2 / ISO 18000-63) Fixed Position Antenna Minimum Label/Tag Pitch 0.625" (15.9mm) Counters: Tracks good/overstruck labels/tags		
Media Type	Die-cut, black mark, receipt, fan-fold, continuous (outside wound)		
Media Width	50.8 ~ 112mm with liner (2" ~ 4.4")		
Media Thickness	0.06 ~ 0.16mm (0.002" ~ 0.06")		
Media Height	15.9 ~ 2,794mm (0.625" ~ 110")		
Media Core Diameter	25.4mm (1") *19.1mm (0.75") (with adapters included with printer) *38.1mm (1.5") (with adapters included with printer)		
Environment Condition	Operation: -20 ~ 50 °C (-4 ~ 122 °F), 10 ~ 90% non-condensing Storage: -30 ~ 70 °C (-22 ~ 158 °F), 10 ~ 90% non-condensing Charging: 0 ~ 40 °C (32 ~ 104 °F), 10 ~ 90% non-condensing		
Accessories	Quick start guide Li-ion battery	Belt clip Power adapter	Media core adapters
Limited Warranty	Printer: 2 years Battery: 1 year	Print head: 25 km (1 million inches) or 12 months which comes first Platen: 50 km (2 million inches) or 12 months which comes first	
Factory Options	Media sensor position (default center, right, or left side)		
User Options	Type C USB 2.0 cable Shoulder strap 1-slot docking cradle 4-slot docking cradle	1-slot battery charger 4-slot battery charger 12-24V DC Vehicle Power Adaptor 12-60V DC Vehicle Power Adaptor	Li-ion smart battery IP54-rated environmental case with shoulder strap 12-48V DC power source with battery eliminator Vehicle mount adapter can be used with RAM® MOUNTS

Compatible Accessories

Description	Compatible Models					
	A40L/RFID	A30L	A30R Premium	A30R Basic	TDM-30	TDM-20
Shoulder Strap	V	V				
Belt Clip	V	V				
1-Slot Docking Cradle	V	V	V			
4-Slot Docking Cradle	V	V	V			
1-Slot Battery Charger	V	V	V	V	V	
4-Slot Battery Charger	V	V	V	V	V	
12-24V DC Vehicle Power Adaptor	V	V	V	V	V	V
12-60V DC Vehicle Power Adaptor	V	V	V	V	V	V
USB Cable	V	V	V	V		



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