M7220

Wireless Hand-Held Terminal

AML
NEVER COMPLICATED ™

Reliable, productive and secure mobile performance

Combining the reliable computing performance of the successful M7100 family with the latest advances in wireless technology, the AML M7220 wireless hand-held terminal delivers powerful functionality, security and performance for mobile data capture applications. Built tough yet optimized for cost-effectiveness, the M7220 is a productive, real-time solution for use in retail, manufacturing and warehouse data capture applications.

The AML M7220 wireless hand-held terminal is richly configured with features and performance capabilities that help optimize business efficiencies and enhance worker productivity. Powered by the fast Samsung® S3C2410 ARM9 processor, the M7220 is equipped with 32MB of built-in RAM and 16MB of Flash ROM for ample storage capacity. Its internal 802.11b/g radio integrates into most wireless local area networks (WLAN) and supports real-time, high-rate data transfer between mobile operators and host applications. Full-shift productivity is ensured by the M7220's enhanced power management, which easily supports eight-hour work shifts without recharging.

The M7220 wireless hand-held terminal features an open source, embedded Linux® operating system that gives the terminal its speed, conservative memory usage and stable performance with no "lock-ups". The M7220 ships fully loaded with VT100/VT220 terminal emulation, TN5250 client, FTP server, SSH client, HTTP server, TELNET server, SSH/SFTP server, Web Browser, WEP and WPA/WPA2 advanced encryption and authentication capabilities. The M7220 connects to any Windows®, Unix®, i5/OS or Linux® host and is easily deployed across a wide range of applications. Administrators can easily configure and replicate settings on multiple terminals from their PC utilizing the M7220 PC-based Configuration Utility.

Optional numeric keypad

Ergonomic and flexible functionality

Rugged yet ergonomic, the M7220 sports a lightweight, contoured design for comfortable, one-handed operation over extended periods of use in highly repetitive scanning applications. The graphical 160 x 160 backlit LCD with multi-font capability is easy to read, even in dimly lit environments.

Multiple M7220 product configurations ensure operational flexibility across a wide range of data capture applications. Choose the 55-key alphanumeric keypad or the lockable 35-key numeric keypad for applications requiring fast numeric data entry. Fully integrated scan engine options include the standard laser, a long range laser, an advanced long range laser or a 2-Dimensional imager for picture and signature capture.

Accessories include a single slot communications and charging cradle, a four position terminal charger, a four position battery charger, an optional pistol grip with trigger (standard on the Model M7221) and multiple holsters.

About AML

Doing business with AML is never complicated – from our products, to our processes, to our business philosophy. With AML, you receive proven technology that is easy to use, competitively priced and backed by real people who are ready to give you the personal attention you deserve, before and after the sale. AML products are made in the USA and backed by no-cost, toll-free phone support for any AML product owner.

Features	Benefits
Rugged, ergonomic design	Comfortably scan bar code data with one hand over extended periods of use.
Samsung® ARM9 processor	Always have enough processing power to drive your most demanding, yet power-sensitive data capture applications.
Open source Linux® architecture	Increase speed, performance and value in your wireless data capture application with freely available, open source Linux®.
Integrated 802.11b/g WLAN radio with WEP & WPA/WPA2 security protection	Be assured of seamless, uninterrupted and secure real-time data communications.
Menu-driven setup	Easily navigate, setup and configure your application settings and features.
32MB RAM/16MB ROM	Adequately store your operating system, user settings and third party applications, even in the most information-intensive applications.
Advanced power management	Conserve battery power and ensure full-shift worker productivity without recharging or battery replacement.
PC-based Configuration Utility	Quickly configure and replicate settings on multiple terminals from your PC. Keep your deployment schedule on track and on budget.
55-key alphanumeric or 35-key numeric keypad options	Choose the intuitive keypad option that provides optimum operator efficiency.
Optional 2-Dimensional imager	Read 2D bar codes and capture digital images.

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Physical Characteristics

Dimensions & Weight:	Without handle: 8.9" length x 3.5" width x 2.3" depth (225mm length x 89mm width x 57mm depth); 16 oz / 454 grams With handle: 8.9" length x 3.5" width x 8.2" depth (225mm length x 89mm width x 208mm depth); 25 oz / 709 grams
Drop Specifications:	5 ft. (1.5m) to concrete
Display:	160 x 160 pixel Grayscale LCD with EL backlight
Battery:	Rechargeable 7.2V Lithium-Ion 2200 mAh, 15.84 watt hours
Keypad:	55-key alphanumeric; Lockable 35-key numeric
Pistol Grip:	Standard on the M7221 hand-held terminal

Environmental Characteristics

Operating Temperature:	14° to 122°F / -10° to 50°C
Storage Temperature:	-13° to 122°F / -25° to 50°C
Humidity:	5% to 90% RH non-condensing
Electrostatic Discharge (EDS):	15 kVdc air; 4kVdc contact, all sides
Sealing:	IP51 (dust, drip water proof)

Performance Characteristics

ARM® is a trademark of ARM, Ltd.

CPU:	Samsung® S3C2410 32-bit ARM9 @ 202 MHz with Advanced Microcontroller Bus Architecture (AMBA)
Operating Platform:	AML Embedded Linux® OS; Linux® Kernel 2.6.16
Memory (RAM/ROM):	32 MB SDRAM @ 101MHz, 16 MB Non-volatile NOR Flash
Development Environment:	AML M7220 SDK for Linux® supporting C and C++; GNU GCC 3.3.5 for ARM-Linux®; Fully Open Sourced Licensing
Integrated Scanner Options:	Standard High-Speed Laser; Long Range Laser; Advanced Long Range Laser; 2-Dimensional Imager
Data Communications:	USB Type B (Slave); Serial RS-232 (max. rate 115200 baud); IrDA
Sound:	Integrated system bell (beeper)

Wireless Data Communications

Wireless Local Area Network:	IEEE 802.11b/g
Data Rate (Mbps):	802.11b: 11, 5.5, 2, 1; 802.11g: 54, 48, 36, 24, 18, 12, 11, 9, 6 with auto-fallback
Frequency (GHz):	North America: 2.412 – 2.462 GHz; Japan TELEC: 2.412 – 2.484 802.11b; Japan TELEC: 2.412 – 2.472 802.11g; Europe ETSI: 2.412 – 2.472; Spain: 2.457 – 2.462
Transmit Power:	802.11b: 17 dBm (40 mW); 802.11b/g: 14 dBm (32 mW)
Receiver Sensitivity (dBm):	54/48 Mbps: -65 dBm / -66 dBm; 24/36 Mbps: -70 dBm / -74 dBm; 12/18 Mbps: -77 dBm / -79 dBm; 11 Mbps: -80 dBm (802.11b); 6/9 Mbps: -81 dBm / -82 dBm
Modulation:	48/54 Mbps (QAM-64); 24/36 Mbps (QAM-16); 12/18 Mbps (QPSK); 6/9 Mbps (BPSK)
Security (Encryption):	None; 64 (40)-bit WEP; 128 (104)-bit WEP; WPA/WPA2 Personal (PSK); WPA/WPA2 Enterprise (EAP 802.1x Supplicants)
Antenna:	Internal Diversity

Device Management

PC-based Configuration Utility:	Quickly configure and replicate settings on multiple terminals from your PC.

Software Tools

Terminal Emulation:	VT100/102; VT220; TN5250; SSH
Web Browser:	'Links2' graphical and text based web browser
Utilities:	Calculator; Bar Code Data Viewer; Linux Console; Camera Utility (if equipped with optional 2-Dimensional Imager)
Servers:	TELNET; FTP; SSH/SFTP; HTTP
Diagnostic Tools:	Printer Test; Network Status Application; System Resource Usage; Network Ping Utility

Optional Peripherals & Accessories

Cradles:	Single slot communication and charging cradle; Four slot terminal charger; Four slot battery charger
Vehicle:	Vehicle mount terminal charger; Vehicle mount cradle (non-charging)
Holsters:	Two styles of functional holsters with adjustable belts

Safety & Regulatory

EMI/RFI:	FCC Part 15 Class A
Laser Safety (if equipped):	CDRH Class II; IEC Class 2
Restrictions of Hazardous Substances:	EU RoHS Compliant / Pb-Free

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Maintenance & Support

Includes one (1) year standard warranty agreement
Optional: Extended Warranty coverage (3 years); Extended Warranty Plus coverage (3 years); CARE Plan Extended Warranty coverage (3 years)

CE

COMPLIES WITH 21CFR1040.10 AND 1040.11
AVOID EXPOSURE
LASER LIGHT IS EMITTED FROM THIS APERTURE
CAUTION
LASER LIGHT - DO NOT STARE INTO BEAM
630 - 680nm LASER
1.0 MILLIWATT MAXIMUM OUTPUT
CLASS II LASER PRODUCT

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AML Business Partner

AML/M7220

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