

Retail Product Description

Radiant P1520 POS Terminal

The Radiant P1520 Point-of-Sale is the newest member in the Radiant Systems family of open retail platforms. The terminal utilizes Intel's **Centrino Mobile Technology** which combines a Pentium M processor, 855 chipset, and optional PRO/Wireless card. The highly efficient Pentium M or Celeron M processor equates to greater than 2.0GHz performance in a standard Pentium 4 design, but with lower power consumption for a more reliable design. In addition, the terminal is based on Intel's EmbeddedATX standard motherboard form factor for open platforms.



Open Platform Highlights

- Standard Intel Architecture
- Industry standard storage (hard drive), DDR memory, PCI and Mini-PCI expansion slots, and USB/RS232 connectivity
- Multiple operating systems including Windows XP or XP-Embedded
- OPOS drivers available

The countertop enclosure provides many benefits, including a small footprint and multiple mounting options. The **cable management system** provides for ease of installation, controlled access to connectors, and concealed cable routing for better reliability. This all-in-one solution provides very tight integration of core point-of-sale hardware including a touch screen, magnetic stripe reader, and much more.

This package includes a 15" active matrix, color, 1024X768 main display with a resistive or capacitive touch screen. The 15" display is a *56% increase* in surface area over the 12" models which allows for faster transactions due to less toggling between application screens, more application design flexibility, and better resolution. The bright active matrix screen provides the best possible display quality, with excellent contrast and brightness. Additionally, the P1520 provides the very best in retail multimedia, including full motion video.

The resistive touch screen provides a very durable, accurate, and fast touch interface even with a gloved hand or stylus. Alternatively, the capacitive touch screen offers a highly durable, accurate, and fast touch interface for applications that do not require gloved or stylus input.

The P1520 also has **more powered serial ports** than most alternative POS terminals including six RS232, four USB, and two dedicated cash drawer ports. This provides expansion capabilities if new devices/peripherals need to be supported without having to buy an add-on expander. Also, the powered serial ports eliminate the need for power bricks, thereby reducing another point of potential failure.

The **retail hardened design** offers a spill resistant, high impact enclosure that is built to withstand tough in-store conditions with continuous operation. Eliminating the active CPU fan increases reliability by preventing forced air through the unit, thereby reducing contaminants in the system. The P1520 can be configured as a silent, thin-client, fanless, solid-state terminal for maximum reliability.

The P1520 supports the Windows XP Professional operating systems. The P1520 provides full support for TCP/IP networking on a 10BaseT or 100 BaseT Ethernet network and it has full support for a wireless network (optional). Upgradeability and



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expandability are fundamental to the P1520 and it offers a field replaceable MSR and power supply, upgradeable RAM and storage, and expansion through the low-profile PCI and mini-PCI slot. High performance, high connectivity, and openness and are the key benefits of the P1520.

Product Stability

By using Intel’s embedded processor family, the P1520 offers **guaranteed product stability** for many years unlike traditional consumer desktop and mobile PCs that have short processor life spans of only a few months. This benefit provides a consistent configuration which is critical for rollouts that might last several years.

Model P1520 Every-Unit-Item Features and Benefits

Features	Benefits
Intel Celeron M 1.3Ghz processor	Fast performance, low power, and support for multiple operating systems. Long lifecycle commitment from Intel.
Intel 852GM Chipset	Supports dual, independent video displays, USB 2.0, integrated graphics utilizing Intel® Extreme Graphics 2 technology, and 64MB Dynamic Video Memory Technology (DVMT). Fast, high-bandwidth 400mhz system bus.
Radiant countertop enclosure	Fully integrated, low-profile, water and tamper resistant housing for high functional retail interaction
CableStrap™ System	Highly functional cable management system that uses a cable strap to secure cable connections for better reliability
Dual-Bulb, Active Matrix, XGA LCD primary display	Excellent brightness, contrast, and color depth. Enables the proper display of high-quality graphics to ease use and decrease training time for retail employees or to directly engage the consumer
Software-adjustable brightness and contrast control for main display	Better display characteristics for user as well as significantly increased bulb life for main display
Integrated resistive or capacitive touch screen controller	Resistive screen offers low-cost option with superb ease of use. Can be used with instruments other than fingertip, very high durability, does not “drift” over time. Capacitive screen offers greater durability for applications that do not require gloved or stylus input.
Magnetic Stripe Reader (MSR)	Integrated 3-Track MSR for credit and loyalty cards. Barcode readers optional.
3.5” IDE Hard Drive	3.5” large capacity for high reliability and greater mass storage.
Integrated stereo, water proof speakers	Provides high-quality feedback for user interaction. Speakers are waterproof for the demanding retail and food service environment
System Management features	Supports ACPI, SMBIOS, DMI, SNMP, WfM,

Features	Benefits
	and PXE. Also supports metering, remote desktop, remote execution, BIOS update, system inventory and asset management.
6 Powered serial ports (4 RJ12 and 2 DB9)	Provides data I/O with any RS-232 peripheral and power, minimizing failure points
4 USB 2.0 ports	Provides data I/O with any USB peripheral. Faster data rates with USB 2.0 at 480 Mbps verses 12Mbps with USB 1.1
2 Dedicated Cash Drawer Ports (RJ 4 Pin, 12v)	Provides two powered ports for direct drive cash drawers (12 volt)
1 DVI port	Provides port for second display (digital or analog)
1 LPT1 Parallel	Provides data I/O with any parallel peripheral
1 PS/2 port	Provides support for keyboard
1 Low Profile PCI expansion slot	Provides expansion slot for add-in cards using the low profile PCI form factor
1 Mini-PCI expansion slot	Provides expansion slot typically for integrated wireless card

Variable Position Tilt-Stand with power supply

This tilt-stand provides variable tilt positions that are secured without need for pins or locking knobs. The dual-spring hinge allows for continuous, smooth rotation throughout the tilt angle (20° to 100° from vertical). The stand includes a cable management system to prevent accidental disconnect or tampering. It also offers through-counter cable routing, which hides all cabling from view. With the power supply located in the base, thermal dissipation of the power supply is isolated and away from the touch head motherboard electronics, which increases reliability of the terminal. The power supply is also field serviceable.

Storage

3.5" Hard Disk Drive (80GB, 7200 RPM standard) – Large capacity storage option with high performance.

Model P1520 Optional Features

Wireless Adapter card

This feature adds an Intel® PRO/Wireless 2915ABG Network Connection card (Tri-mode 802.11a/b/g). Wi-Fi Certified for 2.4 GHz and 5 GHz band, WPA and WPA2. The transmission rate will decrease as distance from access point increases. Typical indoor ranges are as follows:

- 802.11a:** 40 ft (12 m) @ 54 Mbps / 300 ft (91 m) @ 6 Mbps
- 802.11b:** 100 ft (30 m) @ 11 Mbps / 300 ft (90 m) @ 1 Mbps
- 802.11g:** 100 ft (30 m) @ 54 Mbps / 300 ft (91 m) @ 1 Mbps



Biometric Reader Option

This feature provides a 6.5 x 6.5 mm, 500 dpi resolution fingerprint reader to the MSR module of the P1520. The biometric reader is typically used for employee login to the software application. *This optional feature has not yet been released.*

Radiant Customer Display Options

Two features are available depending on the requirement of a 2x20 or Order Confirmation Display.



Radiant offers two options for the customer display including the color 5.5" Digital Video Order Confirmation Display (OCD) that supports full motion video or the 2x20 VFD Graphical Customer display. Both provide the ability for customers to view orders as they are entered into the point of sale resulting in increased order accuracy. Additionally, they can be used as an advertising medium, allowing clients to display specials and promotions to the customer at the time of purchase. Either display can be tilt stand mounted directly on the terminal or pole mounted. The Radiant terminal provides the necessary power to operate the OCD or the 2x20 VFD Customer Display. For customer display feature numbers and specifications, see specific General Product Descriptions for displays.

Advertisement Mounting Kit

Feature Number: P150F020

Kit includes back door and hinges for mounting advertising displays to top, back of terminal.

DVI to VGA adapter cable

Feature Number: CB00429

To use a VGA projector or second VGA display, this adaptor cable converts the DVI port on the P1520 to a VGA port output. DVI Male to DB-15 Male VGA cable.

Typical RJ12 to DB9M adapter kit (should work for pinpads, scanners, etc)

To connect a peripheral device that requires DB9 to a Radiant P15xx POS terminal via serial cable, order the following the two items below.

- 1CBDB9RJ** DB9M to RJ12 Adaptor
- CB10548** 6 ft RJ11 cable

Specifications

CPU	Intel Celeron M 1.3Ghz
Volatile Memory	256MB Std, 2 DIMM slots with up to 2GB DDR SDRAM supported
Networking	Auto-selecting 10Base-T/100Base-T Ethernet using TCP/IP
Primary Display	15" XGA, Active Matrix, dual-bulb, supports auto-stretching VGA and SVGA resolutions
Speaker	Integrated 2 watt X 2 speakers for stereo sound
Touch Screen	Native support for 5-wire resistive or capacitive
MPEG Video Decoding	Software MPEG decoding supported

Specifications

Enclosure	Polycarbonate/ABS impact resistant, high strength blend, environmentally sealed
Dimensions (Countertop envelope through tilt angle)	13.4 to 14.2" L x 15.8 or 16.8" W x 11.5 to 14.2" H, 34.0 to 36.0 cm L x 40.1 or 42.6 cm W x 29.2 to 36.0 cm H
Base Dimension	11.9" L x 10.7" W 30.2 cm L x 27.1 W
Tilt Angle	20° to 100° from vertical
Weight	22.7 lbs., 10.3 kg
Operating Temperature	32°F – 104°F, 0°C – 40°C
Storage Temperature	32°F – 158°F, 0°C – 70°C
Humidity	5% to 85%, non-condensing
Environmental Compliance	RoHS, WEEE
EMI Certifications	FCC Class A, CE, C-Tick
Safety Certifications	UL, CUL, CB Scheme

Installation Notes

Cable Restraint: The P1520 includes a cable management system with cable strap to prevent accidental disconnects and tampering. The strap is opened, peripheral connections are made, the strap is closed, and then cables are then routed through the slot in the base.

Footprint: An area of no less than 16.8" inches square is necessary to properly install a P1520 unit with MSR. This will accommodate the unit as well as its associated mounting hardware and customer display.

Power: P1520 has an auto-sensing power supply rated for 110V and 240V, 50Hz or 60Hz located in the base. Source power is drawn from a regular AC wall outlet. The electronics are "universal" – that is, they will function when connected to standard wall outlets of most nationalities around the world. For use in locales other than North America, special wall outlet adapters or cables will be required. For international configurations of the P1520, typically the country specific power cord is ordered separately.

Moisture: The P1520 is water-resistant. It can easily withstand water over spray and exposure to mild cleaning agents without sustaining damage. The P1520 should not be sprayed directly, however, as the force of pressurized water could potentially compromise the seals around the touch screen, and/or invade the enclosure through the cooling vents. Accordingly, P1520 units should not be installed in areas where they might be exposed to direct water spray. P1520 units are not meant for outdoor installation.

Touch Screen Cleaning: Any standard glass cleaner that is not ammonia based or water can be used to clean the touchscreen. Always spray the glass cleaner on the cloth or towel and then clean the touchscreen to prevent cleaner from running down the glass and gathering on the front bezel.

Magnetic Strip Reader (MSR) Cleaning: Periodically, the MSR may need to be cleaned depending on usage. Pre-saturated MSR cleaning cards can be ordered from Radiant (50/box) using part number ZZ00299. Otherwise, wrap a card with a saturated paper towel of glass cleaner and swipe gently to clean reader head.