

## PDCT Requirements

### Integrated Scanners

PDCT-A uses Intermec's Vista linear imager, which scans bar codes faster and more reliably than traditional standard-range scanning technologies. The Vista technology enjoys a longer MTBF than laser scanning devices.

PDCTs B and C/D use the same decode engine, which provides more consistent performance, better reliability, and a consistent platform across units. The miniaturized 2-D imager proposed for PDCTs B and C/D keeps terminal size small and delivers superior durability with full omnidirectional reading of all bar codes.

### FIPS Secure PDCTs

All PDCTs run Fortress Technologies' AirFortress Secure Client software for operation on FIPS-140 compliant networks.

### Compact PDCT-A

Fits in a shirt pocket

Ruggedized for warehouse and outdoor use

Excellent display capabilities

Ergonomic design

The Intermec CN2G is a compact device designed to fit in a shirt pocket, while maintaining the required ruggedness and features. The CN2G meets all PDCT-A requirements and is suitable for office, warehouse, and outdoor use.



Intermec CN2G

### Touch-Screen PDCT-B

Field proven

Wide operating temperature range

Use flat in hand or with easily attachable handle

Ergonomic design

For the full-featured, ruggedized, touch screen



Intermec 751G

PDCT-B, Intermec offers the 751G, designed for warehouse use and other demanding scan-oriented applications around the world.

### Physical Keypad PDCT-C and Outdoor Extreme Temperature PDCT-D

Full alpha-numeric keypad

Use with or without easily attachable handle

Ergonomic design

One unit serves as PDCT-C and PDCT-D

The rugged CK31G meets all requirements for both PDCT-C and the extreme temperature PDCT-D. By proposing a single unit for both of these PDCT classes, The CK31G provides the benefits of extended temperature range without additional cost.



Intermec CK31G

### Outdoor Extreme Temperature PDCT-D

The Intermec CK31G, Intermec's offering for PDCT-C, meets or exceeds all requirements for both PDCT-C and the extreme temperature PDCT-D. In particular, its operating temperature of -4° to 122° F exceeds the Government's extreme temperature requirement. See the previous section (0) for details on the CK31G.

### Non-Contact, Handheld Bar Code Scanner/Imaging Devices

Ruggedized with full shock-absorbing rubber

Sealed against dust and rain

Adaptus imaging technology

Ergonomic design (weighs only 7.5 ounces)

The HHP Imageteam 4800 SF 2-D noncontact imager can transfer images in less than 1 second. The IT4800 draws only 310 mA from 5 volts while scanning and can be connected directly to a PC with no additional power supply required.

The Imageteam 4800 is available with a coiled USB cable or a coiled keyboard wedge cable for interface to a PC. It also includes a desktop stand.



HHP Imageteam 4800

## Bar Code Label Printers

### Portable/Wearable Bar Code Label Printer

Lightweight, rugged  
Withstands 4-foot drops  
Easy ribbon loading  
Print speed of 3 inches per second

The Zebra *PT403* thermal transfer, mobile label printer provides consistent, 203-dpi print quality with lightweight but rugged construction. The printer includes 9 TrueType fonts for better character printing. The *PT403* can print labels well beyond the industry standard length of 6 inches.



Zebra PT403

### Portable/Stationary Bar Code Label Printer

Field proven  
Lightweight  
Unique double clamshell design offers easy, drop-in ribbon loading

The Intermec EasyCoder® PC4 offers compact size, sturdiness, and quiet operation that make it ideal for industrial and military applications. The PC4 delivers fast, high-quality printing with a throughput of 4 inches per second. The printer includes 9 TrueType fonts for better character printing.



Intermec EasyCoder PC4

#### expect MORE™

The PC4 prints more than 2000 linear inches of labels on a single charge, exceeding the Government's requirement of 1200 linear inches.

### Stationary Bar Code Label Printer

Heavy-duty aluminum construction  
Easily replaceable QuickMount™ print head—no tools required  
RFID support



Intermec EasyCoder PM4i

The Intermec EasyCoder PM4i is an industrial printer that excels in demanding applications and environments. Utilizing the latest technology, the PM4i features a strong and proven mechanical platform and powerful, newly developed electronics. The PM4i printer delivers exceptionally fast throughput at 8

inches per second, exceeding the Government's requirements. It can sense the label size and dispense a self-stripped label on demand. The PM4i can be upgraded to support UHF RFID and smart label printing.

## Data Communications

### Intermec's Common Wireless Architecture

Intermec's common architecture for wireless networks provides significant advantages including fewer network components, robust operation, simplified network management, easy upgrades, and fault tolerance.

#### expect MORE™

Intermec's common architecture for wireless networks improves the network while maintaining 802.11b conformance. These benefits of Intermec's common architecture are summarized in the following paragraphs:

**Dual radio.** The dual-radio capability can provide an upgrade path. One radio can support legacy clients, and a new radio can be added to support new clients. In a new installation, the dual radio capability ensures that future migrations will maximize the investment protection and environmental flexibility. To expand a system, new radios can be added, instead of adding more access points.

**Simple device and network management.** Intermec intelligent access points support 802.1x security without adding costly RADIUS and security software, even in the simplest wireless network: one access point and one host. Intermec supports 3 DES as one of the encryption methods used in the initial EAP connection for 802.1x security. The network can be managed without complex, expensive SNMP management packages. Intermec intelligent access points also provide DHCP and NAT services, giving major network functionality from one access point. This functionality can be scaled to larger networks if required. Support for SNMP MIBs, Avalanche device management software, and VLAN allow more complex implementations.

**IPv6 compliant.** All wireless products will be IPv6 compliant.

**Secure bridging.** The access point can be configured as a secure wireless bridge without additional software. The access point can be both a bridge and an access point with one radio, or the dual radio feature can create an access point and a bridge in one box with improved performance.

**Extended wireless networks with repeating.** With the repeating feature of the WA22 access point, wireless networks can be extended by positioning multiple access points throughout the required range. The WA22 access point provides all the benefits of Intermec legacy repeaters.

**Upgradeable.** Current radios can be upgraded to AES encryption security with only a firmware update. Radios can be replaced without replacing the access point. New software features can be added to existing hardware with firmware upgrades only.

**Auto-failover.** The architecture supports auto-failover and redundancy without additional equipment, management systems, or security solutions. The master access point can fail over to a designated backup access point, and an external RADIUS server can fail over to the embedded security server within a designated access point.

**Leveraged multivendor solution.** Intermec solutions perform well in mixed vendor environments. Intermec wireless products can coexist with Cisco access points and switches in the same infrastructure. Many wireless networks using Intermec and Cisco wireless products have been successfully implemented in the field. Also, the Intermec WA22 access point is compatible with older Intermec 2100 and 2101 access points, so the WA22 can be easily added to networks that already include the older Intermec products. Maintaining compatibility with Cisco and older Intermec products lowers cost and allows flexibility in upgrading to newer devices.

### FIPS-140 Security

Fortress Technologies' AirFortress Model AF2100 Gateway Server was selected for wireless security because it supports FIPS 140 as required and supports 802.1x requirements. All PDCTs run Fortress Technologies' AirFortress Secure Client software for operation on FIPS-140 compliant networks.

### Radio Frequency Data Communication Configurations

Intermec supplies real-time, industry standard RF equipment to meet the contract requirements in yard, warehouse, and retail applications. All equipment communicates to a minimum of 500 feet in an unrestricted environment. All equipment provides the following features: IEEE 802.11g compliant, TCP/IP addressing, Wi-Fi certified, and VLAN support to segment LAN.

### Wireless LAN Adapter (2.4 to 2.5 GHz)

Type II PCMCIA

54-Mbps data transfer

64-bit and 128-bit WEP encryption

The *Actiontec* 54 Mbps Wireless PC Card enables a notebook computer running Windows 2000 or Windows XP to transmit and receive 2.4 to 2.5 GHz wireless transactions. Typical range reaches 300 feet indoors and 1,750 feet outdoors. The card is backward-compatible with any 802.11b device.

### RF Access Points

Dual-radio bay

802.11b/g radio

Operates with any combination of 802.11a and 802.11b/g radios

Intermec proposes the MobileLAN™

Access WA22,

which

accommodates any combination of two radios operating on 802.11a, 802.11b, and 802.11g RF bands. This dual-radio access point provides easy, cost-effective migration paths to the 54-Mbps 802.11a technology while supporting 802.11b/g clients, offering unparalleled flexibility when designing or expanding wireless communication networks.

The WA22 provides advanced encryption and authentication capabilities: WEP 128 with auto-key rotation, 802.1x, EAP/TLS authentication, EAP/TTLS authentication, and RADIUS server support. The advanced encryption and authentication capabilities secure the wireless local area network, enable faster roaming, and enhance mobility. The secure high-speed exchange enforces network security while maintaining a seamless connection. The WA22 supports devices that provide FIPS 140 security, the Federal Information Protection Standard.



Intermec MobileLAN WA22

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The WA22 access point provides 802.1x security in an embedded RADIUS server.

The WA22 uses Intermec's hardware-based packet filtering, ensuring fewer dropped packets, less network congestion, and better overall performance.

Session persistence eliminates the need for routing applications in the client device, dedicated servers, and manual IP addresses entry.

IP addresses are easier and less expensive to administer with Dynamic Host Configuration Protocol (DHCP) server functionality. Network Access Translation

(NAT) support enables the WA22 to assign and manage static IP addresses.

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The WA22 access point can be configured as a secure wireless bridge without additional software. The access point can be both a bridge and an access point with one radio, or the dual-radio feature can create an access point and a bridge in one box with improved performance. A bridge and an access point in one unit lowers cost and speeds setup.

## Data Storage Media

### Memory Card

Designed for demanding industrial applications  
Fastest read and write speeds available  
Highest quality NAND Flash and advanced controller technology



SanDisk SD Memory Card

The SanDisk SD card is available in 256-Mbyte and 1-Gbyte capacities. The 256-Mbyte version is an enhanced version of SanDisk's standard SD card offering higher endurance, reliability, and performance. It is designed to meet demanding industrial applications. The card supports dynamic read/write.

Intermec and SanDisk have enjoyed a long and successful partnership. Intermec performs joint qualification on these cards by qualifying them in Intermec PDCTs, ensuring reliable performance in rugged environments.

### Separately Orderable Components

The SanDisk PC Card Adapter is a PCMCIA Type II memory card adapter that accepts SD cards and multimedia cards. With an SD card inserted, the adapter functions as a PCMCIA accessible plug-and-play memory card.



SanDisk PC Card Adapter

### Optical Memory Card

2.86-Mbyte capacity  
Advanced security features  
"Chip ready" magnetic stripe  
Dynamic read/write



LaserCard  
Optical Memory Card

The LaserCard 2.86-Mbyte optical memory card supports DELA format, ISO 11693, and ISO 11694. The card provides 2.86 Mbytes of data storage (4.1 Mbytes without error correction).

### Small Contact Memory Devices

Rugged, permanent data storage  
Smaller than a dime  
32 and 64 Kbytes  
Dynamic read/write



MacSema MiniButton

MacSema's MiniButton™ is a rugged identification device offering battery-free, permanent identification. Smaller than a dime, the MiniButton measures 0.56 inches in diameter by 0.1 inches high and weighs just 0.027 ounces. The MiniButton features dynamic read/write capability (access to individual files without reformatting the entire device).

### Micro Contact Memory Devices

Rugged, permanent data storage  
Smaller than a pencil eraser  
4-Kbyte  
Dynamic read/write



MacSema MicroButton

The MicroButton™ provides 4 Kbytes of data storage in a package smaller in diameter than a pencil eraser. Measuring just 0.298 inches in diameter by 0.083 inches high and weighing approximately 0.006 ounces, the MicroButton is the perfect permanent identification technology for small-footprint applications. The MicroButton features dynamic read/write capability (access to individual files without reformatting the entire device).

## Readers, Writers, and Encoders for Data Storage Media

### Memory Card Reader/Writer

Supports SD cards and five other memory devices

Fast USB interface

Easy connection to PCs

The SanDisk ImageMate 6 in 1 Card Reader/Writer has slots for SD cards and five other memory device types.



SanDisk ImageMate

### CAC Card Interface for PDCTs

Single reader with adapters for all PDCTs

Memory card and scanner are operable with reader attached

Easily detached using a quick-release mechanism

PDCT-A has a built-in adapter. For PDCTs B, C, and D, the adapter attaches to the front with screws, above the scanner window, which does not compromise the IP64 rating.

For all PDCTs, the reader snaps on to the adapter with the card going into the reader in a vertical manner. This design allows the PDCT to be used with the reader attached, without mobility restrictions.



CAC Card Interface on CK31G

### expect MORE™

The Common Access Card (CAC) reader/writer is a common module that can be connected to the top of any PDCT through an adapter designed for the individual PDCT—resulting in fewer system components.

### Optical Memory Card Reader/Writer

Compact size

Auto-locking head for secure transport

The LaserCard 600-Q is a compact optical card drive that features secure and automatic card authentication; automatic card intake and ejection for reliable operation; auto-locking optical head for secure transport; and rapid transactions for convenience, high service levels, and efficiency.



LaserCard 600-Q

### Reader/Writer for Small Contact Memory Devices

Rugged—for use in maintenance facilities and outdoor use

Supports all proposed PDCTs

MacSema's Mini ButtonLink™ button reader takes full advantage of off-the-shelf software allowing integration with industry standard hardware platforms.

### Reader/Writer for Micro Contact Memory Devices

Rugged—for use in maintenance facilities and outdoor use

Supports all proposed PDCTs

The MacSema Mini/Micro ButtonLink hand-held button reader can read and write both mini and micro buttons.



MacSema Mini/Micro Buttonlink

### Transit Cases

Universal power supplies

RF equipment configured for worldwide operation

Smart System for easy setup

Transit cases ensure that equipment arrives at the destination ready to be put to work despite the rough handling it may be subjected to en route. These transit cases minimize the case volume, yet provide the necessary quantity and density of foam to protect the equipment.

Transit cases meet the required Air Transport Association (ATA) Specification 300, Category 1, as well as the applicable portions of MIL-T-28800, MIL-C-4150, and MIL-STD-108.

### PDCT Transit Case Group

This case group contains five sets of CK31G terminals and accessories: universal holsters, attachable handles, operating and spare rechargeable batteries, docking/charging stations, universal power supplies, and power cords. It also contains manuals, training materials, and a WA22 access point with power supply and interface cable.

### Stationary Printer Transit Case Group

This case group contains the PM4i stationary printer, power cables, PC interface cable, manuals, training materials, and media.