

Overview

FRONT VIEW



1. HP Retail Integrated Webcam
2. HP Retail Integrated 2x20 Display (complex or non-complex)
3. HP Retail Integrated 7-inch Customer Facing Display
4. HP Retail Integrated MSR (Single - Head or Dual - Head)
5. HP Retail Integrated Barcode Scanner
6. HP Retail Integrated Fingerprint Reader
7. **NOTE:** RP2 Image depicts the Model 2020* and Model 2030 (Projected Capacitive touch technology)
*Model 2020 available in the Americas region only

I/O PANEL (BOTTOM OF DISPLAY)

Overview



1. AC Power Connector (DC-in)
2. 24V powered USB
3. Cash Drawer Port (Supports 2 cash drawers with optional cable splitter kit)
4. 12V powered USB
5. DisplayPort 1.2 (for a secondary display)
6. Headset/ Line Out Connector for powered audio devices (Green)
7. Microphone / Line-in Audio Connector (blue)
8. RJ-45 Network Connector (10/100/1000 Ethernet LAN)
9. 1 USB 3.0 Port
10. 3 USB 2.0 Ports
11. 4 RJ-50 Serial Ports (Power configurable 0V (default), 5V, 12V)
12. Power Button

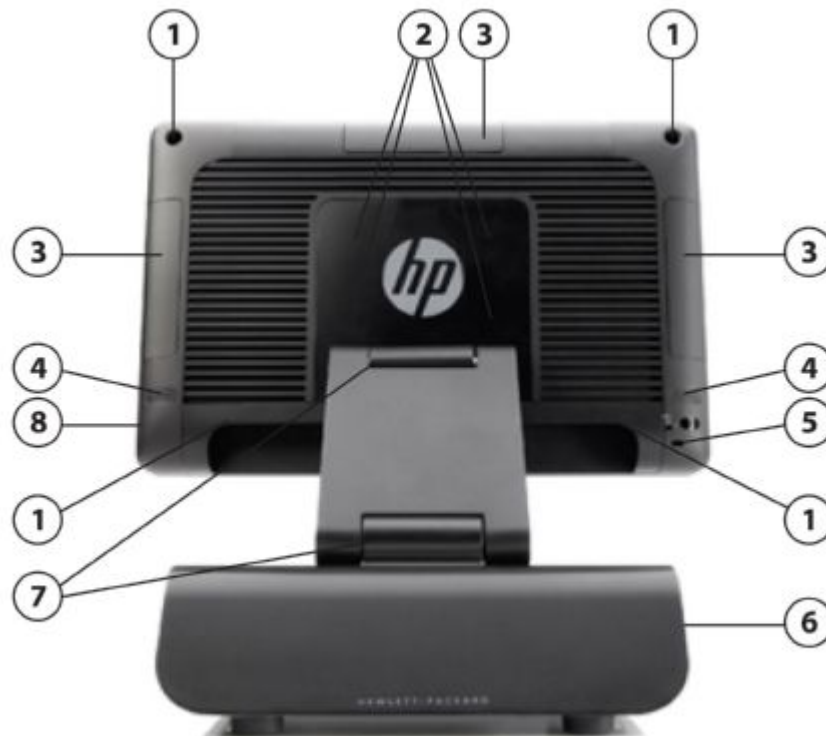
NOTE: RJ50 to DB9 Adapter cables are optional.

Image depicts all models of the HP RP2 Retail System.

*Model 2020 available in the Americas region only

REAR VIEW

Overview



- | | |
|--|------------------------------------|
| 1. Captive Screws (loosen to access core components) | 5. Security Lock Slot |
| 2. 75mm VESA mounting holes | 6. Power Supply (internal in base) |
| 3. HP USB peripheral module connectors | 7. Dual Hinge |
| 4. Integrated Speakers | 8. Hard Drive Activity Light |

NOTE: Image depicts all models of the HP RP2 Retail System

At A Glance

- Designed for deployment within retail and hospitality markets
- Choice of display touch technology:
 - 14 inch diagonal wide-aspect display 5-wire resistive touch (Model 2000)
 - 14 inch diagonal wide-aspect display projected capacitive touch (Model 2020*, 2030)
- Processor choices:
 - Intel® Quad-Core J1900 Celeron™ (2.00 GHz, 2 MB Cache) (Model 2000, Model 2020*)
 - Intel® Quad-Core J2900 Pentium™ (2.41 GHz, 2 MB Cache) (Model 2030)
- Operating System choices (Pre-installed):
 - Microsoft Windows 7 Pro 32-bit (Available through downgrade rights from Windows 8.1 Pro)*
 - Microsoft Windows 7 Pro 64-bit (Available through downgrade rights from Windows 8.1 Pro)*
 - Microsoft Windows 8.1 Pro 64-bit**
 - Microsoft Windows Embedded Industry 8.1 Industry Pro Retail 64-bit**
 - Microsoft Windows Embedded POSReady 7 32-bit
 - Microsoft Windows Embedded POSReady 7 64-bit
 - FreeDOS 2.0
- SSD's and SATA HDD's available
- DDR3 Synchronous Dynamic Random Access Memory (SDRAM) up to 8 GB
- Sealed and fan-less unit. Rated IP54, water and dust resistant
- VESA mounting holes (100 mm x 100 mm and 75 mm x 75 mm)
- Energy Star® qualified, EU Compliant, RoHS2 Compliant
- 89% energy efficient power supply (enclosed in stand)
- HP Limited Warranty, 3/3/3 standard: 3 years parts, 3 years labor, and 3 years on-site services

Overview

- Integrated peripheral options (can also be purchased and installed separately):
 - HP Retail Integrated Dual-Head MSR
 - HP Retail Integrated Single-Head MSR
 - HP Retail Integrated Fingerprint Reader
 - HP Retail Integrated Webcam
 - HP Retail Integrated Barcode Scanner
 - HP Retail Integrated 2x20 LCD Customer Facing Display (Complex and Non-Complex character versions)
 - HP Retail Integrated 7" Diagonal CFD Display

* This system is preinstalled with Windows 7 Pro software and also comes with a license and media for Windows 8.1 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

** Not all features are available in all editions of Windows 8.1. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8.1 functionality. See www.microsoft.com.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

* Model 2020 available in the Americas region only

Standard and Configurable Components

MODELS

Model	Display Touch Technology	Processor	AV
RP2 Retail System, Model 2000	5-Wire Resistive - Single Touch	Intel Quad Core J1900 Celeron	F6H48AV, J4E31AV (APJ Only)
RP2 Retail System, Model 2020 (Available in the AMS region only)	Projected Capacitive, 10 Multi-Touch	Intel Quad Core J1900 Celeron	J7W29AV
RP2 Retail System, Model 2030	Projected Capacitive, 10 Multi-Touch	Intel Quad Core J2900 Pentium	J2A63AV, J4E32AV (APJ Only)

OPERATING SYSTEM

Preinstalled

- Microsoft Windows 8.1 Pro 64-bit*
- Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit*
- Microsoft Windows 7 Pro 64-bit (Available through downgrade rights from Windows 8.1 Pro)**
- Microsoft Windows 7 Pro 32-bit (Available through downgrade rights from Windows 8.1 Pro)**
- Microsoft Windows Embedded POSReady 7 64-bit
- Microsoft Windows Embedded POSReady 7 32-bit
- FreeDOS 2.0

Web Support

- Microsoft Windows 8.1 32-bit
- Microsoft Windows 8.1 Professional 32-bit
- Microsoft Windows Embedded 8.1 Industry Pro Retail 32-bit
- Microsoft Windows 7 Enterprise 32-bit
- Microsoft Windows 7 Enterprise 64-bit

Certified

Linux Ubuntu 14.04 LTS***

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***Not all features are supported in Ubuntu Linux.

PROCESSORS

Intel® Quad Core™ J1900 Celeron® with Intel HD Graphics (2.00 GHz, 2 MB cache, 4 cores) ; Model 2000, Model 2020*

Intel® Quad Core™ J2900 Pentium® with Intel HD Graphic (2.41 GHz, 2 MB cache, 4 cores); Model 2030

NOTE: Multi-core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing system required. Performance will vary depending on your hardware and software configurations. Intel numbering is not a measurement of higher performance.

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Standard and Configurable Components

CHIPSET

Integrated with processor

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OPERATOR DISPLAY

14" Diagonal Resistive Operator Display (Model 2000)

Touch Technology	5-Wire Resistive
Screen Diagonal (inches)	14 inch diagonal
Resolution	1366 x 768
Aspect Ratio	16:9
Anti-Glare	Yes
Viewing Angle	x axis, right($\Phi=0^\circ$) 40~45 degree x axis, left ($\Phi=180^\circ$) 40~45 degree y axis, up ($\Phi=90^\circ$) 10~15 degree y axis, down ($\Phi=270^\circ$) 30~35 degree
Viewable Image Area (Diagonal)	309.40mm x 173.95mm
Bezel/Bezel Free	Bezel
Number of Multi-Touch	1
Pixel Pitch	0.2265mm × 0.2265 mm
Backlight	WLED

14" Diagonal Projected Capacitive Operator Display (Model 2020* and Model 2030)

Touch Technology	Projected Capacitive, 10 Multi-Touch
Screen Diagonal (inches)	14 inch diagonal
Resolution	1366x768
Aspect Ratio	16:9
Anti-Glare	Yes
Viewing Angle	x axis, right($\Phi=0^\circ$) 40~45 degree x axis, left ($\Phi=180^\circ$) 40~45 degree y axis, up ($\Phi=90^\circ$) 10~15 degree y axis, down ($\Phi=270^\circ$) 30~35 degree
Viewable Image Area (Diagonal)	309.40mm x 173.95mm
Bezel/Bezel Free	Bezel Free
Number of Multi-Touch	10
Pixel Pitch	0.2265mm × 0.2265 mm
Backlight	WLED

NOTE: All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

*Model 2020 available in the Americas region only

Standard and Configurable Components

STORAGE*

Size	2.5"
Drive Bays	1
Options:	2.5" SATA Hard Drives 320GB 7200 RPM SATA 2.5" Hard Drive 500 GB 7200 RPM SATA 2.5" Hard Drive 2.5" Self-Encrypting SATA 500 GB 7200 RPM SATA 2.5" SED Hard Drive 2.5" Solid State Drives 32 GB SATA SSD, 2.5" 2.5" Self Encrypting Solid State Drives 64 GB SATA SSD, 2.5" 128GB SATA 2.5" SED SSD 256GB SATA 2.5" SED SSD

*For hard drives and solid state drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and 36 GB (for Windows 8.1) of system disk is reserved for the system recovery software.

MEMORY

Type

Non-ECC, DDR3 SODIMM, 1600 MHz, SDRAM

Maximum

8 GB

of Slots

1

The HP RP2 Retail System supports DDR3 SDRAM (1600 MHz).

NOTE: Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

CAUTION: You must shut down the Retail System and disconnect the power cord before adding or removing memory modules. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the Retail System is plugged in to an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or system board.

MEMORY CONFIGURATIONS

Total Memory	Slot
4 GB	Single 4 GB SODIMM
8 GB	Single 8 GB SODIMM

Standard and Configurable Components

SECURITY SOLUTIONS AND CAPABILITIES

- Security lock slot
- Bolt to counter feature
- HP Keyed Lock Cable Kit (optional)

Key features of the RP2 BIOS include:

- Deployment and manageability — RP2 BIOS provides several technologies that help integrate the HP RP2 Retail MO System into the enterprise, such as PXE, remote configuration, and F10 Setup support for 12 languages.
- Stability— RP2 BIOS supports the HP stable product roadmap by releasing only critical BIOS changes to the factory and advanced change notification.
- Support UEFI specification 2.1
- Thermal and power management – The RP2 BIOS provides and enables thermal and power management technologies so component temperatures are managed for high reliability and to assist in operating the RP2 Retail System in any enterprise environment.
- Upgrades and recovery – RP2 BIOS provides numerous ways to upgrade the RP2 Retail System, including BIOS updates from within DOS, BIOS updates from within Windows, and fail-safe recovery (Emergency Boot Block Recovery).
- RP2 BIOS uses PKI signing of the BIOS for trusted BIOS upgrades and recovery.
- Serviceability – RP2 BIOS provides diagnostic and detailed service information.

Additional RP2 BIOS Features:

- Power-On password – Helps prevent an unauthorized user from powering on the system.
- Setup password – Helps prevent unauthorized changes to the system configuration. If the Setup password is not known, the BIOS version cannot be changed and changes cannot be made to BIOS settings using F10 setup or under the OS.
- Advanced Configuration and Power Interface (ACPI) – Represents a significant innovation in power and configuration management, allowing operating systems and applications to manage power based on activity and usage. HP RP2 Retail System models use ACPI to provide power conservation features.
- S5 Max Power Savings setting supports EU Lot6 requirement and allows the computer to power down below 1W is 55 (when turned off). When S5 Max Power Savings feature is enabled power to slots is turned off along with WOL functionality.
- Master Boot Record Security – Helps to prevent changes and/or infections to the Master Boot Record caused by viruses or malicious code.
- RP2 BIOS Protection – prevents unauthorized updates or changes to the BIOS due to malware, viruses, or malicious BIOS updates. Based on NIST SP800-147 policy guidelines.

Standard and Configurable Components

INTEGRATED PERIPHERAL OPTIONS

HP Retail Integrated Dual-Head MSR



QZ673AA/G7V45AV

General	Magnetic stripe formats	ISO 7811(JIS I), AAMVA
	Card thickness	0.015 to 0.045 in (0.38 to 1.14 mm)
	Indicators	Audio
Mechanical	Dimensions (LxWxH)	3.94in x 3.06in x 1.34in (99.98mm x 77.8mm x 34mm)
	Weight	4.06 oz (115g)
	Slot width	0.45 in (0.114 cm)
	Color	HP Black
Interface/ Connection	Interface	USB 2.0
	Connection	Type A
Power	Voltage (typical)	5.0V +/- 5% supplied by USB, 50mV ripple max
	Current consumption (typical)	40mA max
Drivers		Windows Native, OPOS, JPOS
Operating Systems	Compatibility	Microsoft Windows 8.1 Pro 64-bit*
		Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit*
		Microsoft Windows 7 Professional 32-bit**
		Microsoft Windows 7 Professional 64-bit**
		Microsoft Windows Embedded POSReady 7 32-bit
		Microsoft Windows Embedded POSReady 7 64-bit

* Not all features are available in all editions of Windows 8.1. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8.1 functionality. See www.microsoft.com.

** Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

Option Kit Contents HP Retail Integrated Dual-Head MSR, HP Point of Sale System Software and Documentation CD.

Standard and Configurable Components

HP Integrated Single-Head MSR



J1A33AA / F6F09AV

General	Magnetic stripe formats	ISO 7811, AAMVA
	Card thickness	0.015 to 0.045 in (0.38 to 1.14 mm)
	Indicators	Bi-Colored LED, beeper
Mechanical	Dimensions (LxWxH)	2.5 x 1.7 x 3.9 in (63.5 x 43.1 x 99.1mm)
	Weight	87g
	Slot width	0.045 in (1.14 mm)
	Color	HP Black
	Interface/ Connection	Interface
	Connection	Type A
Power	Voltage (typical)	5 VDC +/- 10%, 50mV ripple max
	Current consumption (typical)	40mA max
Drivers		Windows native, OPOS, JPOS
Operating Systems	Compatibility	Microsoft Windows Industry 8.1 Pro Retail 32-bit*
		Microsoft Windows Industry 8.1 Pro Retail 64-bit*
		Microsoft Windows 8.1 Professional 32-bit*
		Microsoft Windows 8.1 Professional 64-bit*
		Genuine Windows 7 Professional 32-bit**
		Genuine Windows 7 Professional 64-bit**
		Genuine Windows Embedded POSReady 7 32-bit
		Genuine Windows Embedded POSReady 7 64-bit

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Reliability	1,000,000 card swipes minimum
Agency Certifications	FCC Class A, UL, CE, CISPR22, VCCI, WEEE, WHQL, USB-IF, RoHS
Option kit contents	HP Integrated Single-Head MSR, Documentation CD and the Options Warranty Manual

HP Retail Integrated Barcode Scanner

Standard and Configurable Components



E1L07AA/ G3H10AV

General	Indicators	Audible and visual read indicators
	Scan direction	Omni-directional
Symbologies	1D / Linear Codes	Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes.
	2D Codes	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code
	Postal codes	Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Korea Post; Planet Code; Postnet; Royal Mail Code (RM4SCC)
	Stacked codes	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirect
	Depth of field	
	Code 39: 5 mils	4.7 to 17.7 cm (1.8 to 7.0 in)
	Code 39: 10 mils	1.7 to 33.2 cm (0.7 to 13.1 in)
	Data Matrix: 10 mils	2.7 to 17.1 cm (1.0 to 6.7 in)
	Data Matrix: 15 mils	1.2 to 24.6 cm (0.5 to 9.7 in)
	EAN: 13 mils	2.5 to 41.9 cm (1.0 to 16.5 in)
	PDF417: 10 mils	2.2 to 23.9 cm (0.9 to 9.4 in)
	QR Code: 10 mils	3.5 to 16.0 cm (1.4 to 6.3 in)
Mechanical	Dimensions (LxWxH)	4.63 x 3.94 x 2.09 in
	Weight	6.1 ounces (172g) (approximately)
	Adjustability	±120(side to side), ±1.5 +90/-5(down/up), ±1.5
Interface/ Connection	Color	HP Black
	Interface	USB 2.0
	Connection	Type A
Power	Voltage (typical)	5.0V +/- 5% supplied by USB
	Current consumption (typical)	<180mA
Drivers		Windows Native, OPOS, JPOS
Operating Systems	Compatibility	Microsoft Windows Embedded 8.1 Industry Pro Retail 32-bit*
		Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit*
		Microsoft Windows 8.1 Pro 32-bit*
		Microsoft Windows 8.1 Pro 64-bit*
		Windows 8 Professional 32-bit*
		Windows 8 Professional 64-bit*

Standard and Configurable Components

Windows 7 Professional 32-bit**
 Windows 7 Professional 64-bit**
 Windows Embedded POSReady 7 32-bit
 Windows Embedded POSReady 7 64-bit

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Option kit contents HP Retail Integrated Barcode Scanner, HP Point of Sale System Software and Documentation CD. Drivers for the HP Retail Integrated Barcode Scanner are on www.hp.com

HP Retail Integrated Fingerprint Reader



QZ672AA/ F6F05AV

General	Scan Data	8-bit grayscale (256 levels of gray)
	Pixel resolution	512 dpi (average x,y over the scan area)
	Scan capture area	0.57 in (14.6 mm) (nom. width at center) 0.71 in (18.1 mm) (nom. length)
Mechanical	Dimensions (LxWxH)	3.94 x 3.06 x 1.34 in (99.98 x 77.8 x 34 mm)
	Weight	3.39 oz (96 g)
	Color	HP Black
Interface/ Connection	Interface	USB 2.0
Power	Supply Voltage	5.0V ±5% supplied by USB
	Supply Current scanning	< 100 mA (Typical)
	Supply Current idle mode 1	20 mA (Typical)
	Supply Current-suspend mode	< 0.5 mA (Maximum)
Environmental	Temperature	Operating 0° - 40 C°
	Humidity	Operating 20% - 80% non-condensing
Drivers		Windows Native
Operating Systems	Compatibility	Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit*
		Microsoft Windows 8.1 Pro 64-bit*
		Microsoft Windows 7 Professional 32-bit**
		Microsoft Windows Embedded POSReady 7 32-bit
		Microsoft Windows Embedded POSReady 7 64-bit

Standard and Configurable Components

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Option kit contents HP Retail Integrated Fingerprint Reader, HP Point of Sale System Software and Documentation CD.

HP Integrated Webcam



QZ700AA/ F6F12AV

General	CMOS Sensor	OV9726
	Resolution	HD: 1280x720
	Image Control	Automatic Exposure, Automatic White Balance, Automatic Gain
	Field of View	74.9°
	Focus Distance	19.69 in (500 mm)
	Focus Range	20.5cm ~ infinity
	Microphone	Yes (2, Stereo)
	Mechanical	Dimensions (LxWxH)
Weight		2.05 oz (58g)
Color		HP Black
Interface/ Connection	Interface	USB 2.0
Power	Voltage (typical)	3.3V (5V to 3.3V conversion board inside Webcam module to make it USB compatible)
	Current consumption (typical)	150mA
Drivers		Windows Native
Operating Systems	Compatibility	Microsoft Windows Embedded 8.1 Industry Pro Retail 32- bit*
		Microsoft Windows Embedded 8.1 Industry Pro Retail 64- bit*
		Windows 8.1 Professional 32-bit*
		Windows 8.1 Professional 64-bit*
		Microsoft Windows 7 Professional 32-bit**
		Microsoft Windows 7 Professional 64-bit**
		Microsoft Windows Embedded POSReady 7 32-bit
		Microsoft Windows Embedded POSReady 7 64-bit

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Standard and Configurable Components

Option kit contents HP Retail Integrated Webcam, HP Installation Guide.

HP Retail Integrated 7 inch LCD CFD Display



F7A92AA/ F6F04AV

Display type		LCD, LED Backlit
Brightness		250 cd/m ²
Dimensions	mm	185 x 53.5 x 125 (mm)
	inches	7.28 x 2.11 x 4.92 in
Temperature Range	Operating:	50° to 104° F (10 to 40° C) at 20% to 85% humidity (non-condensing at ambient)
	Non-operating:	-22° to 149° F (-30° to 65° C) at 5% to 90% humidity (non-condensing at ambient)
Adjustability		Tilt range of motion: 293 degrees
Weight		1.52lb / .69kg
Interface		USB (mounted to the top display USB port only)
Power	Operating voltage	Full load current: 5V 2.5W (DC +5V , 500mA)
	Idle current	0.64W (DC+5V , 128mA)
Compatibility	Product	HP L6015tm or L6017tm display, RP2 or HP RP7 Retail System
Operating Systems		Microsoft Windows Embedded 8.1 Industry Pro Retail 32-bit* Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit* Windows 8.1 Professional 32-bit* Windows 8.1 Professional 64-bit* Microsoft Windows 7 Professional 32-bit** Microsoft Windows 7 Professional 64-bit** Microsoft Windows Embedded POSReady 7 32-bit Microsoft Windows Embedded POSReady 7 64-bit

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Option kit contents HP Retail Integrated 7-inch CFD, HP Point of Sale System Software and Documentation CD

Service and Warranty Limited Warranty is a three (3) year (HP Option Limited Warranty Period) parts replacement warranty. Additional HP Care Pack Services options are available to extend warranty coverage.

HP Retail Integrated 2x20 Display (Complex or Non-Complex)

Standard and Configurable Components



G6U79AA (Non-Complex)/ G7G29AA (Complex) / F6F00AV (Non-Complex)/ G3H08AV (Complex)

Display type		LCD, LED Backlit
Brightness		370 cd/m ²
Character Number	Non-Complex	40 (20 columns x 2 lines)
	Complex	96x360 dots (20 columns x 2 lines)
Character Font	Non-Complex	5x7 dot matrix
	Complex	16x16 dot matrix
Viewing Angle		Max 90 degrees
Dimensions (LxWxD)	mm	220 x 75 x 40 mm (not including the USB attachments bracket)
	inches	8.66 x 2.95 x 1.57 in
Temperature Range	Operating	50° to 104° F (10° to 40° C) at 20% to 85% humidity (non-condensing at ambient)
	Non-operating	-22° to 149° F (-30° to 65° C) at 5% to 90% humidity (non-condensing at ambient)
Adjustability		Tilt range of motion: 179 degrees
Weight		0.74 lb/ 0.334 kg
Interface		USB
Power	Operating voltage:	5V
	Full Load Current	NonComplex model: 150mA Complex model: 240mA
	Idle current:	Non-Complex model: 140mA Complex model: 230mA
Windows		Windows
Compatibility	Products	HP L6015tm or L6017tm Display, RP2 or HP RP7 Retail System
	Operating systems	Microsoft Windows Embedded 8.1 Industry Pro Retail 32-bit** Microsoft Windows Embedded 8.1 Industry Pro Retail 64-bit** Windows 8.1 Professional 32-bit* Windows 8.1 Professional 64-bit* Microsoft Windows 7 Professional 32-bit** Microsoft Windows 7 Professional 64-bit** Microsoft Windows Embedded POSReady 7 32-bit Microsoft Windows Embedded POSReady 7 64-bit

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Standard and Configurable Components

Option kit contents	HP 2x20 Display, HP Point of Sale System Software and Documentation CD
Service and Warranty	Limited Warranty is a three (3) year (HP Option Limited Warranty Period) parts replacement warranty. Additional HP Care Pack Services options are available to extend warranty coverage.

HARD DRIVE AND SOLID STATE STORAGE

Introduction:

HP Serial Advanced Technology Attachment (SATA) Hard Drives maximize the performance of HP Retail Systems by providing the technologies to meet your increasing storage demands with high-capacity drives offering superior reliability and performance.

SATA provides faster data transfer speeds, better system cooling airflow, more bandwidth, more headroom for speed increases in future generations and better data integrity. A next-generation technology, the SATA interface connects hard drives to the Retail System platform enabling easy aggregation of multiple hard drives into a single Retail System. This offers you the additional benefits of dedicated bandwidth, the ability to more easily identify device failures and scalability. The HP RP2 Retail System supports the latest SATA 6.0 Gb/s specification.

SMART IV Technology

Self Monitoring Analysis and Reporting Technology (SMART) hard drive technology allows hard drives to monitor their own health and to raise flags if imminent failures are predicted. If the drive determines that a failure is imminent, the SMART hard drive technology enables the intelligent manageability or management software to generate a fault alert. While the current versions of SMART hard drives do a good job monitoring the data on the hard drive media, the ever increasing emphasis on reliability and quality has promoted HP to implement SMART IV technology which constantly checks that the data flow from host interface to media and media to host interface is not compromised. This is accomplished by inserting a 2 byte parity code into every 512 byte block in the data path of the hard drive's Cache RAM. This unique parity checking performed by HP's SMART IV technology hard drives, allows for more complete error detection coverage encompassing the entire data path between the host and the hard drive.

Smart IV is also known as IOEDC: I/O Error Detection Code.

Native Command Queuing

NCQ or Native Command Queuing is a SATA protocol extension that allows the hard drive to have several write or read commands outstanding at the same time. In contrast, normal non-queued operation requires each command to be completed before the next command is issued by the host system. Queuing allows the drive to complete the commands in the order that allows for best overall throughput. It also involves an advanced method of transferring data to or from the host, called First Party Direct Memory Access (FPDMA), which allows the hard drive and the host controller to manage the data transfers for multiple outstanding commands, without involving the host processor. NCQ can contribute to better performance but the results are dependent on many factors, including the access patterns of the various applications and operating system functions that are initiating drive accesses. Enabling NCQ features in the hard drive requires AHCI support from the host system BIOS, controller, and driver. AHCI support is typically implemented in RAID configurations.

NOTE: GB = 1 billion bytes. Actual available capacity is less.

HP 32GB SATA Solid State Drive, 2.5"

Capacity	32,017,047,552 bytes
Interface	Serial ATA (SATA) 3.0
Synchronous Transfer Rate (maximum)	Up to 6 Gb/s
Logical Blocks	62,533,296
Height (nominal)	7mm
Width (nominal)	Physical size: 70mm
Operating Temperature	0° to 70° C

Standard and Configurable Components

HP 64GB SATA Solid State Drive, 2.5"

Capacity	63,023,063,040 bytes
Interface	Serial ATA (SATA) 3.0
Synchronous Transfer Rate (maximum)	Up to 6 Gb/s
Logical Blocks	123,091,920
Height (nominal)	7mm
Width (nominal)	Physical size: 70mm
Operating Temperature	0° to 70° C

HP 128GB SATA SED Solid State Drive, 2.5"

Capacity	128,035,676,160 bytes
Interface	Serial ATA (SATA) 3.0
Synchronous Transfer Rate (maximum)	Up to 6 Gb/s
Buffer Size	256 MB
Logical Blocks	250,069,680
Height (nominal)	7mm
Width (nominal)	Physical size: 70mm
Operating Temperature	0° to 70° C

HP 256GB SATA SED Solid State Drive, 2.5"

Capacity	256,060,514,304 bytes
Interface	Serial ATA (SATA) 3.0
Synchronous Transfer Rate (maximum)	Up to 6 Gb/s
Buffer Size	256 MB
Logical Blocks	500,118,192
Height (nominal)	7mm
Width (nominal)	Physical size: 70mm
Operating Temperature	0° to 70° C

HP 320-GB 7.2K SATA 6.0Gb/s 2.5" Hard Disk Drive

Capacity	320,072,933,376 bytes
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	16 MB
Logical Blocks	488,397,168
Seek Time (typical reads, includes controller overhead, including settling)	Single Track: 2.0 ms Average: 11 ms Full-Stroke: 22 ms
Height (nominal)	0.374 in/9.5 mm
Width (nominal)	Media diameter: 2.5 in/63.5 mm
Physical size	2.75 in/70 mm
Operating Temperature	41° to 131° F (5° to 55° C)

Standard and Configurable Components

HP 500-GB 7.2K SATA 6.0Gb/s 2.5" Hard Disk Drive

Capacity	500,107,862,016 bytes	
Rotational Speed	7,200 rpm	
Interface	Serial ATA 3.0 (6.0 Gb/s)	
Buffer Size	16 MB	
Logical Blocks	976,773,168	
Seek Time (typical reads, includes controller overhead, including settling)	Single Track:	2.0 ms
	Average:	11 ms
	Full-Stroke:	25 ms
Height (nominal)	0.374 in/9.5 mm	
Width (nominal)	Media diameter:	2.5 in/63.5 mm
Physical size	2.75 in/70 mm	
Operating Temperature	41° to 131° F (5° to 55° C)	

HP 500-GB 7200 RPM SATA 2.5" Self-Encrypting (SED) Hard Disk Drive

Capacity	500,107,862,016 bytes	
Rotational Speed	7,200 rpm	
Interface	Serial ATA 3.0 (6.0 Gb/s)	
Buffer Size	16 MB	
Logical Blocks	976,773,168	
Seek Time (typical reads, includes controller overhead, including settling)	Single Track:	1.0 ms
	Average:	13 ms
	Full-Stroke:	25 ms
Height (nominal)	0.374 in/9.5 mm	
Width (nominal)	Media diameter:	2.5 in/63.5 mm
Physical size	2.75 in/70 mm	
Operating Temperature	41° to 131° F (5° to 55° C)	

NETWORK CONNECTIVITY

Optional Wireless LAN: HP 802.11a/b/g/n 2x2 Wireless Dual Band Mini Card with Bluetooth NIC ®

WLAN Standards	IEEE802.11a/b/g/n IEEE 802.11d, IEEE 802.11e, IEEE 802.11h, IEEE 802.11i, IEEE 802.11j, IEEE 802.11k
System Interface	PCI-Express Mini Card interface
Frequency Band	802.11b/g/n: 2.402 - 2.482 GHz; 802.11a/n: 4.9 - 4.95 GHz (Japan) 5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz 5.825 - 5.850 GHz
Data rates supported	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: card will support rates for NSS=1 and NSS=2 for RX and TX for 20 and 40 MHz channels. Short and long guard interval shall be supported.
Bluetooth	The Bluetooth component shall be compliant with Bluetooth specification version 4.0 with enhanced data rate updates across the host operating temperature range identified in the specification
Operating temperature	-100° C to 700° C
Storage Temperature	-400° C to 800° C, non-operating
Humidity	10-90% operating 5-95% non-operating

Standard and Configurable Components

Operating Voltage	The card will be powered by a 3.3V, \pm 9% supply from the host system.	
Power Consumption	Platform/ WLAN Mode	Power Consumption
	Wi-Fi	
	Transmit Mode	2W
	Receive Mode	1.6W
	Idle mode (PSP) (WLAN Associated)	250mW
	Idle mode (PSP) (WLAN unassociated)	100mW
	Radio disabled	75mW
Bluetooth Power Consumption	Peak Operating	330mW
	Receive	230mW
	USB Selective Suspend	17mW
Output Power	+13.5 dBm minimum Maximum output power must be able to achieve modular regulatory certification peak gain of +3dBi at 2.4GHz and +5dBi at 5GHz	
Security	IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only AES-CCMP: 128 bit in hardware 802.1x authentication WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification IEEE 802.11i Cisco Certified Extensions, all versions through V5 WAPI	
Antenna	Dual antenna connectors	

AUDIO/MULTIMEDIA

DTS Studio Sound audio management technology with line-out/headphone and line-in/microphone ports on I/O panel.

Two Integrated stereo speakers (standard)

Standard and Configurable Components

POWER

Power Supply	180W External power supply, 89% Efficiency, Active PFC *This power supply meets ENERGY STAR compliance in conjunction with a select range of processors and modules.
Operating Voltage Range	90 to 264 VAC
Rated Voltage Range	100 to 240VAC
Rated Line Frequency	50/60 Hz
Operating Line Frequency Range	47 - 63 Hz
Rated Input Current	<2.9A AVG Efficiency 89% (calculated by testing at 20/50/75/100% load)
Power Supply Fan	None
ENERGY STAR® Compliant	ENERGY STAR® compliant
Power Cord Length	6.0ft (1.83m)
Current Leakage (NFPA99)	< 250 µA

WEIGHTS & DIMENSIONS

NOTE: Weight and dimensions below do not include integrated peripherals.

Weight	With stand 15.05lb / 6.83kg Without stand 7.25lb/ 3.29kg
Dimensions (W x D x H)	With stand 14.01 x 8.77 x 14.42in 355.96 x 222.80 x 366.16mm Without stand 14.01 x 1.71 x 9in 355.96mm x 43.42mm x 228.71mm
Box Dimension (W x D x H)	23.5 x 9.5 x 20in 596.9 x 241.30 x 508mm
Shipping Weight	With Stand (does not include peripherals) 14.4 lbs/ 6.5kg Without Stand 7.2 lbs/ 3.3kg

Standard and Configurable Components

SERVICE AND SUPPORT

On-site Warranty¹: Limited warranty delivers on-site, next business-day² service for parts and labor and includes free telephone support³ 24 x 7. The warranty terms vary by region and onsite and labor are not available in all countries. Depending on region and warranty terms, extended service offers terms up to 5 years by choosing a CarePack. To choose the right level of extended service for your HP product, visit HP Care Pack Central:

www.hp.com/go/cpc

¹Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.

²On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.

³Technical telephone support applies only to HP-configured Compaq and third-party HP-qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

Environmental Specifications

TEMPERATURE, HUMIDITY, ALTITUDE

Temperature	Operating	10 to 40° C with SSD's, 10 to 35° with HDD's
	Non-operating	-30° C to 60°C
Relative humidity	Operating	20% to 85% RH
	Altitude (unpressurized)	Operating
	Non-operating	0 -30,000 ft (9,144M)

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT <Gold> registered in the United States. See <http://www.epeat.net> for registration status in your country.

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Ultra-slim Desktop model is based on a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Energy Consumption (in accordance with US ENERGY STAR® test method)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation (Short idle)	20.47 W	20.36 W	20.97 W
Normal Operation (Long idle)	16.44 W	17.17 W	16.46 W
Sleep	1.15 W	1.18 W	1.15 W
Off	0.49 W	0.55 W	0.49 W

Note:

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family . HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation (Short idle)	70 BTU/hr	70 BTU/hr	72 BTU/hr
Normal Operation (Long idle)	56 BTU/hr	59 BTU/hr	56 BTU/hr
Sleep	4 BTU/hr	4 BTU/hr	4 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 BTU/hr

*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Environmental Specifications

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)

Sound Power
(LWAd, bels)

Sound Pressure
(LpAm, decibels)

Typically Configured - Idle
Fixed Disk - Random writes

2.6
2.6

16
16

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

- 6 USB ports
- 2 memory slots
- 1 Mini PCIe half-length slot
- 1 MXM 3.0 Type A - 35W slot
- 1 mSATA slot
- 1 2.5" internal bay supporting up to Two 2.5" hard drives (HDD/SSD/SED/SSHD)
- 1 5.25" external supporting optical drive

Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:

- Mercury greater than 1ppm by weight
- Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)
Battery type: Lithium

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC. This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product contains 50.1% post-consumer recycled plastic (by wt.)
- This product is 96.7% recycle-able when properly disposed of at end of life.

Packaging Materials

- **External:**
 - PAPER/Corrugated – 1119.4 g
 - PAPER/Paper – 297.4 g
- **Internal:**
 - PLASTIC/EPE (Expanded Polyethylene)– 466 g
 - PLASTIC/Polyethylene high density – 24 g
- The EPE foam packaging material is made from 0% recycled content.
- The corrugated paper packaging materials contains at least 25% recycled content.

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at:

http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
-

Environmental Specifications

- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Hewlett-Packard Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications

<http://www8.hp.com/us/en/hp-information/environment/ecolabels.html>

ISO 14001 certificates:

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/>

[PC_GBU_Product_Design_ISO_14K_Certificate.pdf](http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf)

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

Options and Accessories (sold separately)

OPTIONS AND ACCESSORIES (sold separately)

HP Integrated Peripherals

	Part Number
HP Retail Integrated 2x20 Display (Non-Complex)	G6U79AA
HP Retail Integrated 2x20 Complex	G7G29AA
HP Retail Integrated 7-inch LCD CFD Display	F7A92AA
HP Retail Integrated Fingerprint Reader	QZ672AA
HP Retail Integrated Dual-Head MSR	QZ673AA
HP Integrated Single-Head MSR	J1A33AA
HP Retail Integrated Webcam	QZ700AA
HP Retail Integrated Barcode Scanner	E1L07AA

Input Devices

HP POS Keyboard with MSR	FK218AA
HP USB Standard Keyboard	DT528A
HP USB Optical Mouse	QY777AA
HP USB Laser Mouse	GW405AA

Security

HP Business PC Security Lock	PV606AA
HP Keyed Lock Cable	H4D73AA

Barcode Scanners

HP Imaging Barcode Scanner	BW868AA
HP Linear Barcode Scanner	QY405AA
HP Presentation Barcode Scanner	QY439AA
HP Retail Integrated Barcode Scanner	E1L07AA

Cash drawers

HP Heavy Duty Cash Drawer	FK182AA
HP Standard Duty Cash Drawer	QT457AA
HP USB Standard Duty Cash Drawer	E8E45AA
HP Flip-Top Cash Drawer (EMEA Region Only)	BW867AA
HP Cable Pack for Dual Cash Drawers	QT538AA

Printers

HP Powered USB Thermal Receipt Printer	FK224AA
HP Serial/USB Thermal Receipt Printer	BM476AA
HP Hybrid Printer with MICR	FK184AA
HP Value PUSB Receipt Printer	F7M67AA
HP Value Serial/USB Receipt Printer	F7M66AA
HP USB Y Cable (for Serial USB/Receipt Printer)	BM477AA

System Memory

4GB DDR3-1600 SODIMM	B4U39AA
8GB DDR3-1600 SODIMM	B4U40AA

Options and Accessories (sold separately)

Storage

128GB SATA 2.5 SSD	QV063AA
320 GB 7200 SATA 2.5 HDD	D1S10AA

Cables

RJ50 to DB9 cable 1 Meter	K0A29AA
RJ50 to DB9 cable 2 Meter	K0A30AA

MSR

HP Mini-MSR	FK186AA
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Displays

HP 7 inch standalone Pole Display	F7A93AA
HP L6015tm 15-in Monitor Capacitive Touch	A1X78A
HP L6010 10.4-in Monitor Non touch	A1X76A
HP L6017tm 17-in Monitor	A1X77A

Stands

HP RP2 Stand	K1C13AA
HP Dual Position L6010 Stand	A1X79AA
HP HT ADJL6015/17tm Stand	A1X81AA

Summary of Changes

Date	Version History	Action	Description of Change:
July 18, 2014	V1 to v2	Changed	Weights and Dimensions section update
August 4, 2014	From v2 to v3	Changed	Environmental data table
August 12, 2014	From v3 to v4	Changed	Options and Accessories part numbers
Sept 11, 2014	From v4 to v5	Changed	Updated Environmental data for Models 2000, 2020, and 2030
October 7, 2014	From v5 to v6	Changed	Security Solutions and Capabilities and Bios sections reordered

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