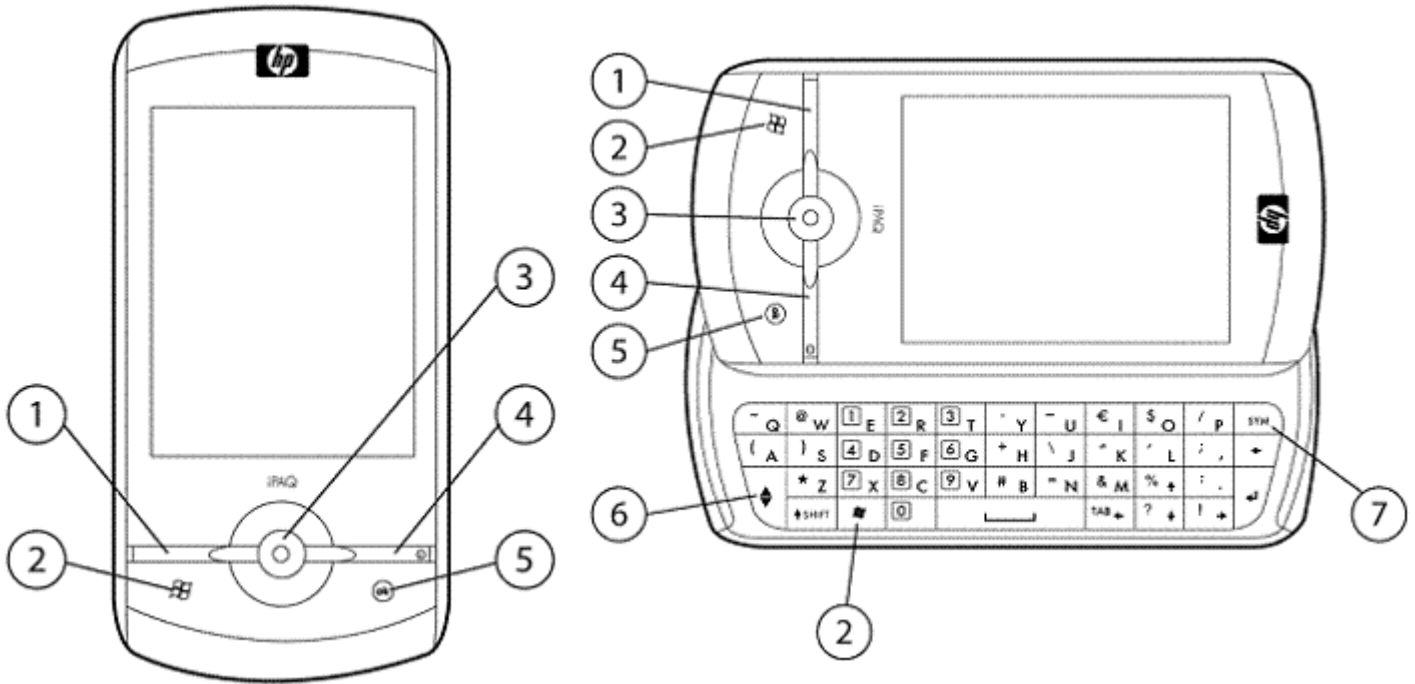
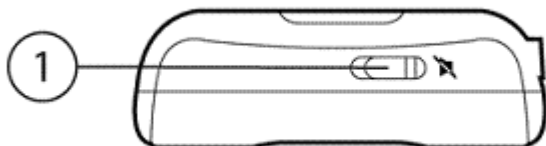


## Overview

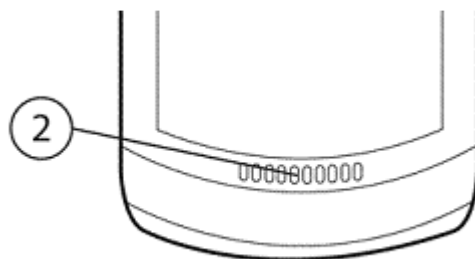


Front

1. Send key (green)
2. Windows key
3. 5-way optical navigation with center select
4. End key (red)
5. OK key
6. Option key
7. Symbol key



## Overview

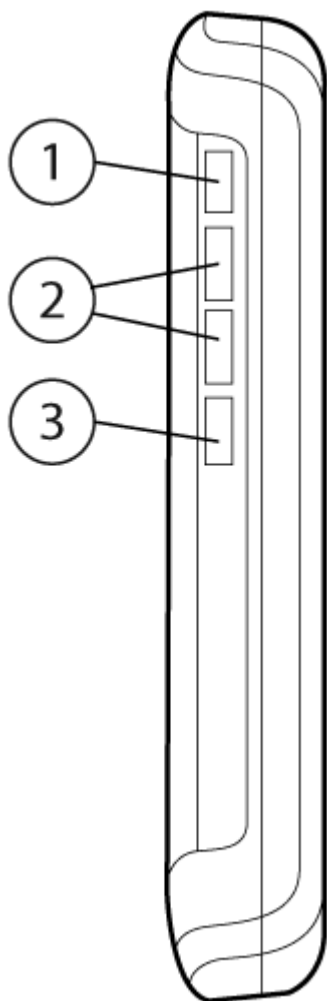


Back

1. Camera (3.1 MP, auto-focus)
2. Speakerphone

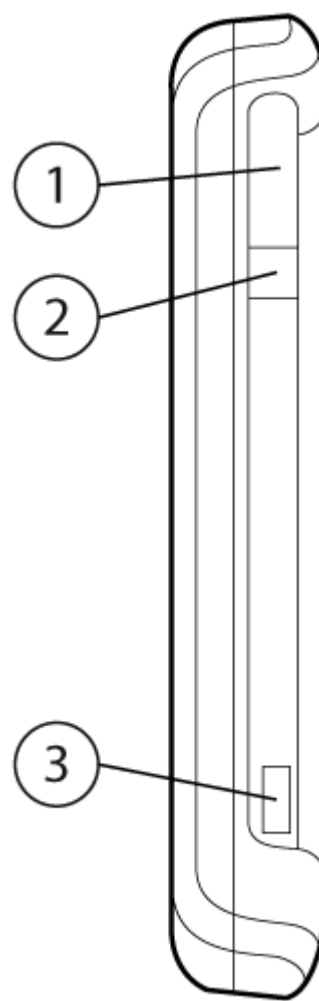
Top

1. Ringer/sound switch



Left

1. Key Guard enable
2. Volume up/down
3. Contacts



Right

1. Micro USB connector
2. 2.5mm headphone jack
3. Camera button

## Overview

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### At A Glance

- Slide-out QWERTY keyboard and 5-way control
- 3G wireless broadband connectivity for voice and data<sup>1,2</sup>
  - Tri-band UMTS (900/1900/2100 MHz)
  - Quad-band GSM/GPRS/EDGE (850/900/1800/1900 MHz)
  - HSDPA up to 7.2Mbps downlink
  - HSUPA up to 2Mbps uplink
- Operating System: Windows Mobile 6.1 Professional edition
- GPS: integrated support<sup>6</sup>
- Display: 2.81-inch (71.12 mm) diagonal QVGA, 64K color, 240x320
- Camera: 3.1MP auto-focus, 5X digital zoom with flash LED
- Wi-Fi: 802.11 b/g with WPA2 security<sup>1</sup>
- Bluetooth: 2.0 + EDR<sup>1</sup>
- Memory: 128M SDRAM/256MB Flash ROM
- Storage: MicroSD (supports up to 8GB<sup>4</sup>)
- Battery: 1140 mAh Lithium-polymer
- Charge/sync connector: Micro USB
- Headset: 2.5mm stereo headset jack
- Weight: 5.64 oz/160g
- Dimensions: 4.5 x 2.24 x 0.69 in/114.5 x 57 x 17.4mm (H x W x D)
- Light sensor for display brightness control
- Proximity sensor for touchscreen control while on a call
- Key software features:
  - Microsoft Office Mobile, including Outlook Mobile for push email (from Exchange, IMAP, or POP3)
  - Real-time streaming support
  - Google Maps Windows Live for instant messaging
  - Windows Media Player Mobile for audio and video playback
  - Microsoft Internet Sharing to connect your laptop to the internet

### NOTES:

<sup>1</sup> A standard GSM/GPRS/EDGE/UMTS/HSPA infrastructure, Wi-Fi network access, other Bluetooth-enabled devices, separately purchased equipment, and a service contract with a wireless service provider may be required for applicable wireless communication. Wireless Internet access requires separately purchased Internet service contract. Check with service provider for availability and coverage in your area. Not all web content available. Normal GSM Data Calls (CSD) are not basic GSM data services. These services may not be available via all service providers, and may require separate subscription. Establishment and continuation of a wireless connection depends on network availability, provider support and signal strength. Coverage is subject to transmission limitations and terrain, system, capacity and other limitations. Not all features and service options are available in all areas.

<sup>2</sup> Telephone service requires separately purchased contract with a telephone service provider with coverage in your service area. Additional fees may apply for some features, check with service provider.

<sup>3</sup> Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Restrictions and limitations apply. For details, visit [www.hp.com/go/carepack](http://www.hp.com/go/carepack).

<sup>4</sup> Sold separately or as an-add on feature.

<sup>5</sup> Purchase of additional maps and/or GPS navigation software may be required to enable some features or allow navigation in certain areas. Availability of maps is limited. Map coverage may vary and is not guaranteed.

## Standard Features

### Models

#### HP iPAQ Data Messenger

FB149AA#ABA	Guatemala, Costa Rica, Panama, Honduras, El Salvador, Nicaragua, Antigua & Barbuda, Aruba, Bahamas, Barbados, Cayman Islands, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Puerto Rico, St. Kitts & Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad & Tobago, Turks & Caicos Islands, Virgin Islands, Venezuela
FB149AA#ARE	Malaysia
FB149AA#ABG	Australia
FB149AA#UUF	Indonesia, Singapore, Thailand, Hong Kong
FB149AA#ABB	UK, Ireland, Bulgaria, Iceland, Luxembourg, Morocco, UAE, Czech Rep, Greece, Hungary, Poland, Norway, Denmark, Sweden, Finland, Saudi Arabia, Kuwait, Bahrain, Qatar, Yemen, Oman, Lebanon
FB149AA#ABE	Spain
FB149AA#ABF	France, Belgium, Switzerland
FB149AA#ABD	Germany, Switzerland, Austria
FB149AA#ABZ	Italy, Switzerland
FB149AA#ABH	Netherlands, Belgium

### Specifications

<b>Processor</b>	Qualcomm 7201A (528MHz ARM11)	
	<b>NOTE:</b> Processor numbering is not a measurement of higher performance.	
<b>Memory</b>	128MB SDRAM main memory for running applications (user-available storage capacity varies) 256MB flash ROM	
<b>Display</b>	<b>Type</b>	Transmissive active matrix TFT LCD with LED backlight
	<b>Number of Colors</b>	64K, 16-bit
	<b>Touch Screen</b>	Yes
	<b>Resolution (W x H)</b>	320 x240 pixels (QVGA)
	<b>Dot pitch</b>	0.0595mm (W)×0.1785mm (H)
	<b>Viewable Image Size</b>	2.81 inch diagonal; 42.84 (W)×57.12 (H) mm
<b>Camera</b>	<b>Image quality</b>	3.1 Megapixel
	<b>Resolution</b>	QVGA (320x240), VGA (640x480), SXGA (1280x1024), UXGA (1600x1200), QXGA (2048x1536)
	<b>Digital zoom</b>	5X
	<b>Auto-focus</b>	Yes
	<b>Flash</b>	Yes
	<b>File format</b>	.jpg, .3gp
	<b>Video size</b>	QCIF (176 x 144), 120, QVGA (320x240)

## Standard Features

<b>Hardware Buttons</b>	QWERTY keyboard, Send key, End Key, volume up/down, camera button, ringer switch, optical navigation key, 2 quick access keys	
<b>Audio</b>	<b>Input</b>	Voice recording Built-in mono-speaker Microphone on bottom of unit
	<b>Output</b>	Speaker designed for voice playback Built-in speakerphone on the back of the device Speaker on front of unit for handset earpiece audio Audio jack for stereo headset
<b>Interface(s)</b>	Micro USB sync/charge, 2.5mm headset jack	
<b>Removable storage</b>	Micro SD card slot, up to 8GB capacity <sup>5</sup>	
<b>Power</b>	<b>Battery</b>	Removable/rechargeable 1140 mAh Lithium-polymer battery
	<b>Battery performance</b>	<b>NOTE:</b> Battery run time varies based on the usage pattern of an individual user and the configuration of the handheld. Use of internal wireless capabilities and backlight will significantly decrease battery run time.
	<b>AC power supply ratings</b>	100Vac ~240Vac 50/60Hz
	<b>AC adapter dimensions (HxWxD)</b>	66.5mm x 28mm x 36mm
	<b>Power cord length (approx.)</b>	1.8M
<b>System Unit</b>	<b>Dimensions (HxWxD)</b>	114.5 x 57 x 17.4 mm
	<b>Weight</b>	with battery: 164g, without battery: 137g
	<b>Operating temperature</b>	14° to 131° F (-10 to 55° C)
	<b>Storage temperature</b>	-4° to 140° F (-20 to 60° C)
	<b>Operating humidity</b>	Up to 90% RH
	<b>Regulatory</b>	<b>Electrical</b> UL, FCC, Industry Canada, CE, IDA, C-Tick, NTC, SIRIM
		<b>Carrier interoperability</b> GCF 3.26, PTCRB 3.11.1
		<b>Safety</b> UL/C-UL including UL-60950 and UL-2054, CE and CB
		<b>Environmental</b> RoHS or WEEE compliance
<b>In the box</b>	HP iPAQ Data Messenger, 1140mAh rechargeable battery, micro-USB sync cable, AC adapter, 2.5 mm wired stereo headset, HP iPAQ Getting Started CD, documentation kit	

### Standard Features

**Operating System** Windows Mobile 6.1 Professional Edition

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**Applications/Links**

Microsoft Office Mobile  
Microsoft Office Outlook Mobile  
Internet Explorer Mobile  
Windows Live  
Windows Media Player Mobile  
Microsoft Internet Sharing

**Value-add applications:**

Google Maps  
Google Search  
ArcSoft MMS Composer  
ArcSoft RTSP  
Sun JVM  
Snapfish integration  
Cyberon Voice Commander  
Westtek Jetcet PDF viewer  
Westtek Jetcet Print  
MobiMate WorldMate (on CD)  
HP Power Save Mode  
HP Light Sensor  
HP Ringer/Sound Switch  
HP Asset Viewer  
HP Data Connect  
HP Band Control  
HP TTY Calling  
HP SIM Manager  
HP Keyboard Backlight  
HP Button Mapping

**NOTE:** Programs may vary based on model. Some programs are accessed through CD links to download web sites. Some programs may require purchase of additional desktop software to utilize Smartphone versions.

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**Service and Support**

HP Warranty and Services: 1 year parts and labor in most regions (2 years in EMEA); 90 days technical support for software in most regions.

HP Business Support Center

- iPAQ Active Chat support 24x7
- Email-based support service
- On-line troubleshooting and self-help resources

HP Care Pack Services extend service contracts which go beyond your standard warranties. For more details visit: <http://www.hp.com/go/lookuptool>

**NOTE:** Additional offers may vary by region.

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**Wireless Wide-Area Network (WWAN) Specifications** <sup>1,2</sup>

**Technology**

UMTS – Universal Mobile Telecommunication System  
HSDPA – High-Speed Downlink Packet Access  
HSUPA – High-Speed Uplink Packet Access  
EDGE – Enhanced Data for Global Evolution  
GSM – Global System for Mobile Communications  
GPRS – General Packet Radio Services

### Standard Features

<b>Operation bands</b>	Tri-band UMTS: 900/1900/2100 MHz, Quad-band GSM/GPRS/EDGE: 850/900/1800/1900 MHz HSDPA (up to 7.2Mbps downlink) HSUPA (up to 2Mbps uplink)
<b>Power class</b>	Class 4 (2W @ 850MHz) Class 4 (2W @ 900 MHz) Class 1 (1W @ 1800/1900 MHz) GSM 850 8-PSK Class E2 GSM 1900 8-PSK Class E2 GSM 900 8-PSK Class E2 GSM 1800 8-PSK Class E2
<b>GSM technology features</b>	Half Rate, Full Rate, Enhanced Full Rate and Adaptive Multi-Rate (HR,FR/EFR/AMR) Echo cancellation and noise reduction Full duplex hands free Single Antenna Interference Cancellation (SAIC)
<b>EDGE technology features</b>	EGPRS Class E2 Multi slot Class 12 PBCCH Support for E-GPRS coding schemes MCS1 to MCS9 in both the uplink and downlink
<b>GPRS technology features</b>	Coding Schemes: CS1 to CS4 Network Mode 1-2, partial support for mode 3 (limited support for NMO3)
<b>Supplementary services supported</b>	Call forwarding Call barring Multiparty Calling Line Identity Call Waiting Call Holding
<b>Unstructured supplementary service data</b>	USSD Phase 2 (MO & MT)
<b>Encryption</b>	GEA1, GEA2 and GEA3
<b>Authentication</b>	Password Authentication Protocol (PAP) or Challenge Authentication Protocol (CHAP)
<b>Messaging services</b>	SMS (Short Message Service) for GSM, both mobile-originated and mobile-terminated SMS MMS (Multimedia Message Service) Cell Broadcast Service (CBS)
<b>SIM</b>	1.8 / 3.0V SIM operation Security: Pin 1 & 2 Control SIM standards, Phase 1, 2, 2+, CPHS SIM Toolkit Release 99
<b>Ring Tones file formats</b>	Simple MIDI, WMA, WAV, MP3, polyphonic MIDI, ACC, AMR, AWB
<b>Regulatory</b>	Compliant with ETSI GSM Phase 2+ standard

## Standard Features

Wireless LAN Specifications <sup>1</sup>	IEEE Standard(s)	802.11b/g compliant
	Frequency band	2.412 to 2.472 GHz
	Antenna type	PIFA antenna (internal)
	Authentication	802.1x EAP-TLS EAP-PEAP
	Encryption	WEP - 64 & 128 WPA (TKIP) No WPA2 (AES)
	Modulation technique	OFDM (54,48,36,24,18,12,9,6 Mbps)/CCK/DSSS(1,2,5.5,11 Mbps)
	Modulation schemes	OFDM/DSSS/CCK
	Receiver sensitivity - packet error rate	For 802.11b: 1 Mbps: <-96 dBm, PER < 8 %, typical 11 Mbps: <-87 dBm, PER < 8 %, typical For 802.11g: 6 Mbps: <- 91 dBm, PER < 10 %, typical 54 Mbps: <- 74 dBm, PER < 10 %, typical
	Transmit output power	For 802.11b: typical 15 dBm For 802.11g: typical 15~13 dBm
	Power consumption	Transmit mode: 640 m Watts, typical Receive mode: 165 m Watts, typical
	Media access protocol	CSMA/CA
	Internet protocols supported	TCP/IP
	Operating distance	Up to 140 meters (outdoor/open sight)
	Certification	Wi-Fi logo certification including WPA/TLS

Bluetooth® Specifications <sup>1</sup>	Technology	High-speed, low-power, short-range wireless communication with other Bluetooth devices
	Specification	Bluetooth 2.0/EDR support
	System interface	High-speed UART processor interface
	User interface	Bluetooth Manager
	Device type	Class II device; up to 4 dBm transmit, typical 10 meter range
	Power	<b>3.3V 5% Peak current</b> - typical TX current at approximately 50 mA - typical RX current at approximately 30 mA

## Standard Features

### Global Positioning System Operation (GPS) Specifications<sup>6</sup>

GPS/AGPS operation  
High sensitivity GPS signal detection  
On-chip Doppler measurement and navigation data decoding  
Host interface: MicroUSB  
JTAG test capability

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<sup>1</sup> A standard GSM/GPRS/EDGE/UMTS/HSPA infrastructure, Wi-Fi network access, other Bluetooth-enabled devices, separately purchased equipment, and a service contract with a wireless service provider may be required for applicable wireless communication. Wireless Internet access requires separately purchased Internet service contract. Check with service provider for availability and coverage in your area. Not all web content available. Normal GSM Data Calls (CSD) are not basic GSM data services. These services may not be available via all service providers, and may require separate subscription. Establishment and continuation of a wireless connection depends on network availability, provider support and signal strength. Coverage is subject to transmission limitations and terrain, system, capacity and other limitations. Not all features and service options are available in all areas.

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<sup>5</sup> Purchase of additional maps and/or GPS navigation software may be required to enable some features or allow navigation in certain areas. Availability of maps is limited. Map coverage may vary and is not guaranteed.

### Options

**NOTE:** Optional accessories are available as separate purchase.

<b>Power</b>	HP iPAQ Data Messenger Standard Battery (1140 mAh)	FB158AA#AC3
	HP iPAQ Data Messenger Extended Battery (2280 mAh)	FB160AA#AC3
	HP iPAQ Sync/Charge Cable Micro-USB	FB166AA#AC3
<b>PC Synchronization</b>	HP iPAQ Sync/Charge Cable Micro-USB	FB166AA#AC3
<b>Audio</b>	HP iPAQ Wired Stereo Headset-2.5mm	FB162AA#AC3
<b>Input devices</b>	HP iPAQ Data Messenger Stylus Kit	FB159AA#AC3
<b>Cases</b>	HP iPAQ Leather Case	FA925AA#AC3
<b>Other Accessories</b>	HP iPAQ Data Messenger Comfort Cradle	FB176AA#AC3

For more information on the HP iPAQ Data Messenger, visit: <http://www.hp.com>.

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