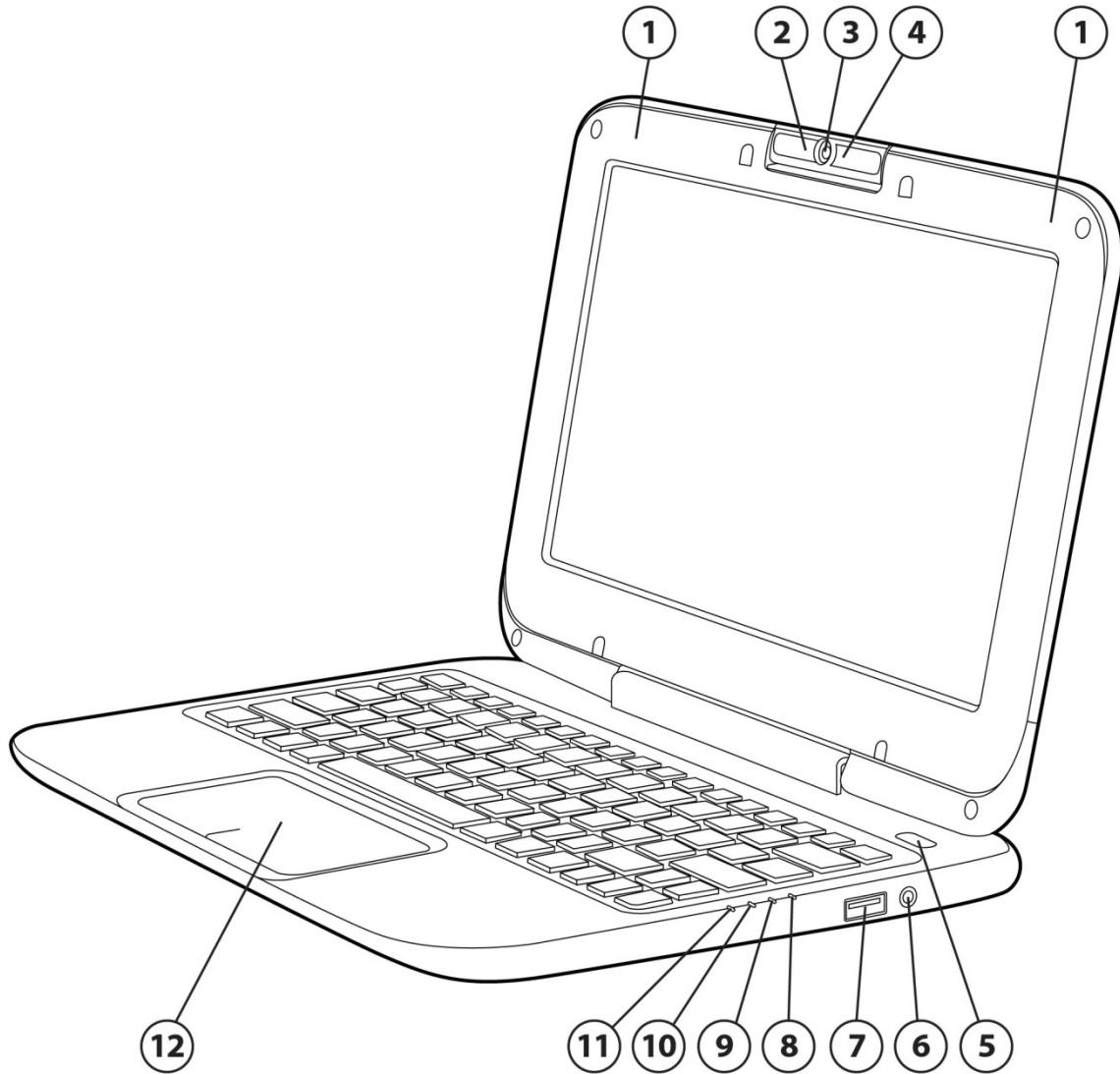


Overview

HP Classmate Notebook PC

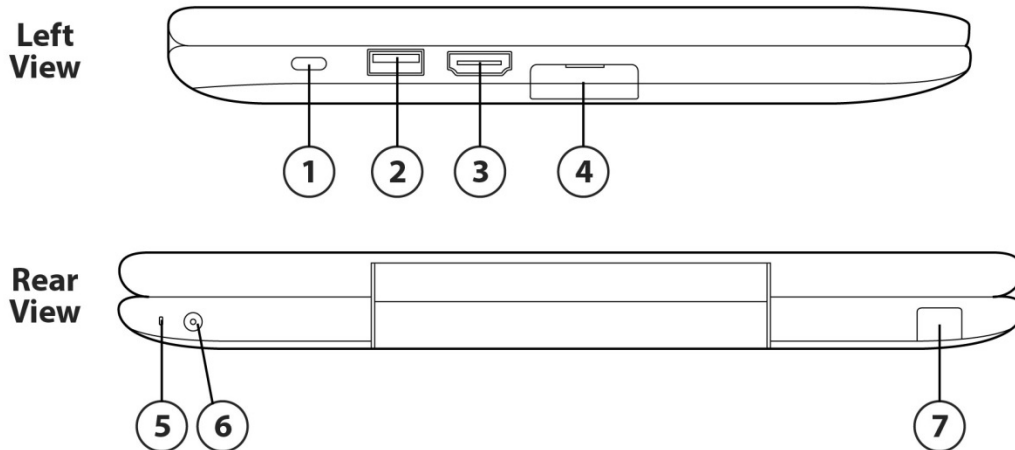


Front/Right Image

- | | |
|--------------------------------------|---|
| 1. WLAN antennas | 7. USB 2.0 port |
| 2. Digital Microphone | 8. Airplane mode LED |
| 3. Webcam | 9. Storage Activity LED |
| 4. Webcam Light | 10. Caps-Lock LED |
| 5. Power button | 11. Num-Lock LED |
| 6. Headphone-out/Microphone-in combo | 12. Smart Pad / Click Pad with Left / Right Click and scrolling bar |



Overview



- | | |
|------------------------|------------------------------|
| 1. Security cable slot | 5. Power state LED indicator |
| 2. USB 3.0 port | 6. Power connector |
| 3. HDMI port | 7. RJ-45 (LAN) |
| 4. SD card slot | |

AT A GLANCE

- Windows 8.1 Pro 64-bit
- Intel® HD Graphics
- Integrated QWERTY keyboard with Hot key
- HDMI port for connecting to high-resolution displays
- Integrated HD webcam, integrated microphone
- 802.11 b/g/n (1x1) + Bluetooth® 4.0 Combo wireless LAN module
- 10.1" diagonal 1366x768 HD anti-glare display

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



Features

OPERATING SYSTEM

Preinstalled

Windows 8.1 Pro 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 <http://www.microsoft.com>.

PROCESSOR

Intel® Celeron® N2806 (1.46 GHz, 1 MB L3 cache, 2 cores, 2.5W)*

* 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 on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

CHIPSET

Intel integrated soldered on circuit (SoC)

GRAPHICS

Integrated: Intel® HD* Graphics
Support for HD decode and HDMI

* High definition (HD) content is required to view high-definition images.

DISPLAY

Internal

10.1" diagonal HD* anti-glare (1366x768)

External

Up to 32-bit per pixel color depth

HDMI

Port supports up to 1080p, 1920 x 1080 at 60Hz

* High definition (HD) content is required to view high-definition images.

NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

STORAGE AND DRIVES

Primary Storage Bay



Features

Hard Drives

320/500 GB*5400 rpm SMART SATA II HDD

* For hard drives GB = 1 billion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 8.1) of system disk is reserved for the system recovery software.

MEMORY

Standard

DDR3L SDRAM (1066/1333 MHz)*

4096 MB (1 DIMM) standard memory

*Maximum memory speed supported by the system may be 1333 MHz or 1066 MHz.

NOTE: Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

NETWORKING/COMMUNICATIONS

Wireless LAN (WLAN)

LiteOn/AzureWave 802.11 b/g/n (1x1) + Bluetooth® 4.0 Combo*

Communications

Realtek RTL8105E-VL

- Supports 10 and 100 Mb/sec
- Full and half Duplex operation

* Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited.

AUDIO/MULTIMEDIA

Audio

Digital microphone

2 Integrated speakers

Headphone / Microphone Combo Jack

Webcam

1.0 MP HD* webcam

- USB 2.0 interface
- 15 fps, 1280 x 720 resolution
- Support both 4:3 and 16:9 aspect ratio

* High definition (HD) content is required to view high-definition images.



Features

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

Integrated 83 UK / 84 US QWERTY keyboard with hot key
Optional chocolate-colored keyboard

Pointing Devices

Smart Pad / Click Pad with Left / Right Click and scrolling bar

Buttons and Function Keys

Power button:

Press power button down for 1 second to enter suspend mode

Press power button down for 5 seconds to power off system

LED under power button

Function Key:

Fn + F1 – Airplane mode on/off

Fn + F2 – Sleep

Fn + F3 – Audio mute

Fn + F4 – Volume Down

Fn + F5 – Volume Up

Fn + F6 – Display Switch

Fn + F7 – Backlight Down

Fn + F8 – Backlight Up

SOFTWARE AND SECURITY

Preinstalled Software

Buy Office

Security

TPM 1.2 Embedded Security Chip

Security Cable Lock (Slot) (lock must be purchased separately)

For more information on HP security solutions refer to: <http://www.hp.com/go/security>.

POWER

Power Supply

External 40W HP AC adapter

Power cord included is 1.0 m (+/- 0.1 m).

Primary Battery

2-cell (25 WHr) polymer battery

3-cell (37 WHr) polymer battery



Features

Power Conservation

ENERGY STAR® qualified

WEIGHTS & DIMENSIONS

Weight

2-cell battery: 2.87 lbs (1300 g)

3-cell battery: 3.42 lbs (1550 g)

Dimensions (w x d x h)

11.06 x 7.90 x 1.12 in (Front)

281 x 200.6 x 28.5 mm (Front)

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components.

PORTS/SLOTS

Ports

HDMI* - One

Headphone / Microphone in Combo – One

Power Connector – One

RJ-45/Ethernet – One

USB 3.0 – One (left side)

USB 2.0 – One (right side)

Expansion Slots

2-in-1 SDHC

* HDMI cable sold separately.

SERVICE AND SUPPORT

HP Services offers limited 1-year warranty; 3-year options available With HP Care Pack Services***, depending on country.

* Sold separately or as an optional feature.

** Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc.

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.

<http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp>



Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	Nominal Operating Voltage	19V
	Max Operating Power	< 40 W
Temperature	Operating	41° to 95° F (5° to 35° C)
	Non-operating	-4° to 140° F (-20° to 60° C)
Relative Humidity	Operating	10% to 90%, non-condensing
	Non-operating	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
Shock	Operating	40 G, 2 ms, half-sine
	Non-operating	200 G, 2 ms, half-sine
Random Vibration	Operating	0.75 grms
	Non-operating	1.50 grms
Altitude (unpressurized)	Operating	-50 to 10,000 ft (-15.24 to 3,048 m)
	Non-operating	-50 to 40,000 ft (-15.24 to 12,192 m)
Planned Industry Standard Certifications	ENERGY STAR®	Select models*

* Configurations of the HP Classmate that are ENERGY STAR qualified are identified as HP Classmate ENERGY STAR on HP websites and on www.energystar.gov.

For accessibility information on HP products, please visit: <http://www.hp.com/accessibility>.

DISPLAY

10.1-inch diagonal WXGA wide-viewing angle display	Active Area (W x H)	8.75 x 4.91 in (222.22 x 124.81 mm)
	Diagonal Size	10.1 in (256.5 mm)
	Surface Treatment	Anti-glare
	Contrast Ratio	600:1
	Refresh Rate	60 Hz
	Brightness	400 nit (typical)
	Pixel Resolution	Pitch 0.1695mm x 0.1695 mm
		Format 1280 x 800 (WXGA)
		Configuration RGB Stripe
	Backlight	LED
	PPI	150
	Viewing Angle	UWVA 85/85/85/85

STORAGE AND DRIVES

Internal Storage	Drive Weight	0.22 lb (101 g)
500 GB* 5400 rpm		



Technical Specifications

SATA Hard Drive	Capacity	500 GB	
	Height	0.276 in (7 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ	
	Transfer Rate	Synchronous (maximum)	150 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
Features	ATA Security		
320 GB* 5400 rpm SATA Hard Drive	Drive Weight	0.22 lb (101 g)	
	Capacity	320 GB	
	Height	0.276 in (7 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ	
	Transfer Rate	Synchronous (maximum)	150 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	625,142,448	
Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
Features	ATA Security		

* For hard drives and solid state drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 8.1) of system disk is reserved for the system recovery software.

NETWORKING/COMMUNICATIONS

AzureWave 802.11b/g/n Bluetooth 4.0 Combo Card*	Wireless LAN Standards	IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Frequency Band	Wi-Fi: 2.4 GHz ISM Bands 2.412-2.472 GHz, 2.484 GHz
	Data Rates	802.11b: 11, 5.5, 2, 1 Mbps 802.11g:



Technical Specifications

	54, 48, 36, 24, 18, 12, 9, 6 Mbps
	802.11n: MCS 0 to 7 for HT20MHz MCS 0 to 7 for HT40MHz
Modulation	802.11b: CCK, DQPSK, DBPSK 802.11 g: 64 QAM, 16 QAM, QPSK, BPSK 802.11 n: 64 QAM, 16 QAM, QPSK, BPSK
Security¹	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES, WEP 64&128 bit, WPA, WPA-PSK, WPA2, WPA2-PSK, WPS, IEEE 802.1x, IEEE 802.11i
Media Access Protocol	CSMA/CA with ACK
Network Architecture Models	Ad-hoc mode (Peer-to-Peer) Infrastructure mode
Output Power (for CCK)²	Frequency Range 802.11bg 2.412 ~ 2.4835 GHz Transmit Output Power – 1x1 (Tolerance: ±1.5dBm) 802.11b: 16 dBm@11Mbps 802.11g: 15 dBm@6Mbps 14 dBm@54Mbps 802.11n: 20MHz: 15 dBm@MCS0 13 dBm@MCS7 40MHz: 13 dBm@MCS0 13 dBm@MCS7 Receiver Sensitivity 802.11b: -83 dBm@11Mbps 802.11g: -71 dBm@54Mbps 802.11n: 20MHz -69 dBm@MCS7 40MHz -66 dBm@MCS7
Power Consumption	<i>TX Mode:</i> 270 mA



Technical Specifications

	RX Mode: 250 mA
	Associated Idle: Wi-Fi+BT: 25 mA Wi-Fi only: 5 mA(Minimum) BT only: 20 mA
	Unassociated Idle: Wi-Fi+BT: 5 mA Wi-Fi only: 3 mA BT only: 5 mA Radio Off: 3 mA
Receiver Sensitivity³	802.11b: -83 dBm@11Mbps 802.11g: -71 dBm@54Mbps 802.11n: 20MHz -69 dBm@MCS7 40MHz -66 dBm@MCS7
Antenna type	Dual MHF4 Antenna Connectors
Form Factor	M.2 NGFF 2230
Dimensions	3.3 x 26.65 x 29.85 mm
Operating Voltage	3.3 V ±9% I/O supply voltage
Temperature	Operating 32° to 158° F (0° to 70° C) Non-operating -40° to 176° F (-40° to 80° C)
Humidity	Operating 5 % to 90% (non-condensing) Non-operating 5 % to 95% (non-condensing)
LED Activity	LED Off – Radio OFF; Solid LED On – RadioON
	<ol style="list-style-type: none"> 1. Check latest software/driver release for updates on supported security features. 2. Maximum output power may vary by country according to local regulations. 3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
Bluetooth Specification	Bluetooth V4.0 LE system Backwards compatible with BT version of 1.1, 1.2, 2.0, 2.1 and 3.0+HS
Number of Available Channels	79 (1 MHz) available channels



Technical Specifications

Data Rates and Throughput	1 Mbps, 2Mbps and Up to 54Mbps
Transmit Power	+4 ≤ Output Power ≤ +10 ; Class 1 Device
Receiver Sensitivity	< 0.1% BER at -70dBm
Power Consumption	Peak (Tx) 74 mW(Wlan Disable) Peak (Rx) 67 mW(Wlan Disable)
Antenna	Dual MHF4 Antenna Connectors
Range	Up to 33 ft (10 m)
Electrical Interface	USB
Bluetooth Software Supported	Realtek Bluetooth for Windows Microsoft Windows Bluetooth Software
Link Topology	Support 4 piconets in a scatternet
Power Management	Microsoft Windows ACPI, and USB Bus Support Support USB LPM/Selective Suspend State
Bluetooth Profiles Supported	Dial_Up Networking Profile (DUN) Object Push Profile (OPP) Hard Copy Cable Replacement (HCRP) Personal Area Networking Profile (PAN) Human Interface Device Profile (HID) Advanced Audio/Video Distribution Profile (A2DP) Basic Imaging Profile (BIP) Headset Profile (HSP) Hands Free Profile (HFP) Basic Printing Profile (BPP) AVRCP (Audio Video Remote Control Profile)

* Wireless access point and internet service required. Availability of public wireless access points limited.

** Sold separately or as an optional add-on feature.

AUDIO/MULTIMEDIA

Audio

Hardware	Implementation	HD Audio
	Volume Controls	Up, down, and mute function keys
	Full Duplex	Yes
	Microphone In	Stereo
	Headphone/Line Out	Stereo
	Integrated Microphone	Yes

Audio Output Quality	Frequency Response	10 Hz ~ 22 KHz
	Signal to Noise Ratio	Typical 95 dB FSA (DAC)
	Total Harmonic Distortion	Typical -88 dB FS (DAC)
	Noise Floor	-110 dB
	Play/Record Sampling Rate(s)	Up to 192 KHz



Technical Specifications

	DAC	24 bits
	ADC	24 bits
Integrated Altec Lansing Stereo Speakers	Power Rating	1.5 W
	Impedance	4 ohms

Multimedia

Integrated 1.0 MP HD Webcam	Supports videoconferencing and still image capture
	USB 2.0 interface
	15 fps, 1280 x 720 resolution
	Supports both 4:3 and 16:9 aspect ratio

POWER

HP 40W AC Adapter	Input	100 to 240 VAC
	Output	Output power 40W DC output 19V
	Connector	2-pin and 3-pin power cord
	Environmental Design	Operating temperature 41° to 95° F (5° to 35° C) Non-operating (storage) temperature -4° to 185° F (-20° to 85° C) Altitude 0 to 5,000 ft (0 to 1,524 m) Humidity 20% to 95% Storage Humidity 10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives; Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition.

2-cell (25 WHr) Polymer Primary battery	Weight	0.31 lb (0.14 kg)
	Dimensions (H x W x L)	0.14 x 5.31 x 8.39 in (0.36 x 13.5 x 21.3 cm)
	Cells/Type	2-cell, Lithium Ion Polymer
	Energy	Voltage 7.4V Amp-hour capacity 3.4Ah Watt-hour capacity 25Wh
	Battery Re-Charge Time	System in OFF or Standby Mode 2.5 hours System ON 3 to 5 hours



Technical Specifications

3-cell (37 WHr) Polymer Primary battery	Cells/Type	3-cell, Lithium Ion Polymer
		Amp-hour capacity 3.4Ah
		Watt-hour capacity 37Wh
	Battery Re-Charge Time	System in OFF or Standby Mode 2.5 hours
		System ON 3 to 5 hours

COUNTRY OF ORIGIN

Made in China



Options and Accessories (sold separately and availability may vary by country)

Type	Description	Part #
Carrying Cases	HP Slim Ultrabook Top Load (up to 15.6" x .88"/22/5mm)	F3W15AA
	HP Slim Ultrabook Backpack (up to 15.6" x .88"/22/5mm)	F3W16AA
Docking	HP USB 3.0 Port Replicator	H1L08AA#xxx
Input Devices	HP USB Optical Travel mouse	RH304AA
	HP Wireless Mobile Mouse	H2L63AA
Security	HP UltraSlim Keyed Cable Lock	H4D73AA

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