

HP ProBook 450 G0 Intel® Core™ i5 i5-3230M □□□□□ □□□□□ 39,6 cm (15.6") 4 GB DDR3-SDRAM 750 GB HDD Windows 8 □□□□, □□□□□

Brand : HP Product family: ProBook Product code: E5G42PA

Product name: 450 G0



Design		Software	
Product type *	Laptop	Operating system architecture	64-bit
Product colour *	Black, Charcoal	Operating system installed *	Windows 8
Form factor *	Clamshell	Processor special features	
Country of origin	China	Intel® Wireless Display (Intel®	
Display		WiDi)	✓
Display diagonal *	39.6 cm (15.6")	Intel® My WiFi Technology (Intel®	/
Display resolution *	1366 x 768 pixels	MWT)	
Touchscreen *	×	Intel Smart Connect Technology	×
LED backlight	✓	Intel® Anti-Theft Technology (Intel® AT)	✓
Native aspect ratio	16:9	Intel® Rapid Start Technology	×
Display surface	Matt	Intel® Smart Response Technology	×
Processor		Intel® Identity Protection	
Processor manufacturer *	Intel	Technology (Intel® IPT)	1
Processor family *	Intel® Core™ i5	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor generation	3rd gen Intel® Core™ i5	Intel® Turbo Boost Technology	2.0
Processor model * Processor cores	i5-3230M 2	Intel® Small Business Advantage (Intel® SBA)	×
Processor threads Processor boost frequency	4 3.2 GHz	Intel® Matrix Storage Technology (Intel® MST)	×
Processor frequency *	2.6 GHz	Intel® High Definition Audio (Intel®	
System bus rate	5 GT/s	HD Audio)	X
Processor cache	3 MB	Intel® Active Management	×
Processor cache type	Smart Cache	Technology (Intel® AMT)	
Processor socket	BGA 1023	Enhanced Intel SpeedStep Technology	✓
Processor lithography	22 nm	Intel® Clear Video HD Technology	1
Processor operating modes	64-bit	(Intel® CVT HD)	•
Processor series	Intel Core i5-3200 Mobile series	Intel Clear Video Technology	×
Processor codename	Ivy Bridge	Intel® InTru™ 3D Technology	✓
Bus type	DMI	Intel® Insider™	1
FSB Parity	×	Intel® Quick Sync Video Technology	√ √
Stepping	L1	Intel Flex Memory Access	/
Thermal Design Power (TDP)	35 W	Intel® Smart Cache	✓
Tjunction	105 °C	Intel® AES New Instructions (Intel®	
Maximum number of PCI Express lanes	16	AES-NI)	V
PCI Express slots version	3.0	Intel Trusted Execution Technology	×
PCI Express configurations	1x16, 2x8, 1x8+2x4	Intel Enhanced Halt State	✓
CPU multiplier (bus/core ratio)	26	Intel VT-x with Extended Page	/
ECC supported by processor	×	Tables (EPT)	
Memory		Intel Demand Based Switching	X
,		Intel® Secure Key	1

Memory		Processor special features	
Internal memory *	4 GB	Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT	x
Internal memory type	DDR3-SDRAM	for MID)	^
Memory clock speed	1600 MHz	Intel 64	✓
Memory form factor	SO-DIMM	Execute Disable Bit	✓
Memory layout (slots x size) Memory slots	1 x 4 GB 2x SO-DIMM	Idle States	/
Maximum internal memory *	2x 50-DIMM	Thermal Monitoring Technologies	·
•	10 05	Processor package size	31 x 24 (BGA1023)
Storage		Supported instruction sets	AVX
Total storage capacity *	750 GB	Processor code	SROWX
Storage media *	HDD	CPU configuration (max)	1
Number of HDDs installed	1 750 CD	Embedded options available	×
HDD capacity HDD interface	750 GB SATA	Graphics & IMC lithography	22 nm
HDD speed	5400 RPM	Intel Virtualization Technology for	
HDD size	2.5"	Directed I/O (VT-d)	X
Optical drive type *	DVD Super Multi DL	Intel Identity Protection Technology	1.00
Card reader integrated	✓	version Intel Secure Key Technology version	1.00
Compatible memory cards	SD, SDHC, SDXC	Intel Virtualization Technology (VT-	
	52, 521.16, 52X6	x)	✓
Graphics		Intel Dual Display Capable	✓
On-board graphics card *	✓	Technology	•
On-board graphics card family	Intel® HD Graphics	Intel FDI Technology	✓
On-board graphics card model *	Intel® HD Graphics 4000	Intel Rapid Storage Technology	×
On-board graphics card base frequency	650 MHz	Intel Fast Memory Access	✓
On-board graphics card dynamic		Processor ARK ID	72056
frequency (max)	1100 MHz	Conflict-Free processor	✓
On-board graphics card ID	0x166	Integrated 4G WiMAX	✓
Audio		Battery	
Audio system	DTS Sound+	Battery technology	Lithium-Ion (Li-Ion)
Number of built-in speakers	2	Number of battery cells	6
Built-in microphone	✓	Battery life (max)	7.45 h
Camera		Power	
Front camera	✓	AC adapter power	65 W
Network	•	DC-in jack	✓ ·
	,	Security	
Wi-Fi	✓	•	
Wi-Fi standards	802.11b, 802.11g, Wi-Fi 4 (802.11n)	Cable lock slot	✓
Ethernet LAN	10 100 1000 Mk/h/-	Fingerprint reader	✓
Ethernet LAN data rates	10,100,1000 Mbit/s	Weight & dimensions	
Bluetooth	✓	Width	375 mm
Bluetooth version	4.0	Depth	256 mm
Ports & interfaces		Height	22.8 mm
USB 2.0 ports quantity *	2	Weight *	2.4 kg
USB 3.2 Gen 1 (3.1 Gen 1) Type-A	2	Packaging content	
ports quantity * Ethernet LAN (RJ-45) ports	1	AC adapter included *	✓
HDMI ports quantity *	1	Manual	✓
DVI port	X	Power cord included	✓
VGA (D-Sub) ports quantity	1		
Headphone outputs	1	Other features	
S/PDIF out port	X	LightScribe	×
Microphone in	^ _	Maximum internal memory (64-bit)	16 GB
Docking connector	×	Intel® Virtualization Technology (Intel® VT)	VT-x
-		Intel segment tagging	Enterprise, Professional
ExpressCard slot	X		
CardBus PCMCIA slot type	X		
SmartCard slot	×		

Performance	
Motherboard chipset	Intel HM76 Express
Keyboard	
Pointing device	Touchpad
Numeric keypad *	✓
Spill-resistant keyboard	✓
Full-size keyboard	✓
Windows keys	✓

