## HP ProBook x360 11 G5 Education Edition





## HP PROBOOK x360 11 G5 EE SERIES

Introduction What's new this generation? Product walkthrough

Portfolio overview

Specifications

Step-up in performance



#### INSIGHTS TO INNOVATION WHAT'S NEW

### ProBook x360 11 G5 EE

Bringing Cool to School

*K*-12 classroom environment is rugged and laptops need to last for 4–6 years

Cyber Security and Broadband/Network Capacity tie as top priorities for School IT Leaders

88% of Gen Z's agree "protecting my privacy is very important to me"<sup>1</sup>

Long-hand notetaking using a pen deepens the mind's ability to retain and process information

Gen Z has been observing, evaluating, and living life through a screen for their entire lives

The COOL Factor design impacts student engagement with device



## INTRODUCING ProBook x360 11 G5 EE

Improve learning outcomes, save teachers time, and engage students with the performance, versatility, and manageability of the ProBook x360 11 EE.



### HP WINDOWS EDUCATION EDITION REQUIREMENTS



#### Built tough for the classroom

Each HP Education Edition notebook and convertible passes MIL- STD-810G<sup>2</sup> testing for durability.



#### Long battery life

Modern learning happens anytime, anywhere. Student devices now need to last beyond the standard school day. x360 G5 has <u>16:45h (MM 14)</u>



#### Premium 2x2 802.11ac & ax wireless

Advanced 2x2 antenna array with the latest 802.11ac or ax technology available helps ensure students stay connected. (x360 G5 has ax = Wifi 6 optional)

#### Out-of-the-box learning

On our Windows 10 Education Editions, HP School Pack enables a host of next-generation teaching and learning experiences right out of the box.





### BUILT FOR SCHOOLS, DESIGNED FOR LEARNING

WHAT'

The rugged x360 built for schools and adaptable to every style of learning.

#### **ROBUST AND DURABLE DESIGN**

- Enhanced bumpers and metal corner reinforcement - 122 cm drop test on plywood <sup>5</sup>
- Passed 13 MIL-STD 810G<sup>2</sup> tests plus enhanced education testing
- The improved **anchored key design** is pick-resistant



#### PERFORMANCE AND EFFICIENCY

- Latest Celeron and Pentium processors for highly efficient computing
- World's first rugged convertible to support **Book Mode** for hands-free reading <sup>6</sup>.



#### FAST WIRELESS EXPERIENCE

World's first Rugged Convertible with Wi-Fi 6 (802.11 AX) with MU-MIMO<sup>1</sup> which is a giant leap forward in wireless connectivity. It can dramatically improve your wireless experienceespecially in device dense school environments



#### SECURITY AND PRIVACY

- HP BIOSphere Gen5<sup>4</sup> firmware ecosystem keeps productivity high and downtime low with automatic updates and security checks
- World's first Rugged Convertible with a Privacy Camera which has a physical shutter to protect against malicious surveillance



## EXCEEDS INDUSTRY DURABILITY STANDARDS **BUILT FOR SCHOOLS**

Industry leading HP Total Test Process HP's commitment to quality

Every HP BUSINESS Notebook PC undergoes

**120,000** hrs. of rigorous testing

#### **PLUS** Education-specific testing

- Enhanced Drop Up to 30 in. (76cm) onto concrete/steel surface. - Up to 48 in. (122cm) onto
  - plywood. (NEW)

Tumble Test

- 200 tumble cycles

#### Passes MIL-STD 810G<sup>2</sup>

#### Extreme tests for extreme dependability













#### HP PROBOOK x360 G5 RUGGED FEATURES

#### ADDITIONAL TESTING

Corning<sup>®</sup> Gorilla<sup>®</sup> Glass 3 Touchscreen resists scratches and sharp contact damage



Wipeable keyboard

Tested to 1,000 wipes

with a disinfectant cloth

Reinforced Hinge For flexibility and damage protection

Textured Surface

Easy to grip and

resists scratches



Dedicated DC-in power connector Connector attached separately from the motherboard to it's own cable wiring for improved serviceability and durability Reinforced USB-C<sup>™</sup> connector Drop Test

Tested to 76cm onto concrete or steel to mimic a drop from desk height Able to withstand up to 122cm over plywood, reflecting height of lab desk or standing arm height



Tumble Tests 200 tumble cycles



Spill Tests Survives minor spills up to 350ml of water (almost 12 oz.)

Photos are for illustrative purposes only and do not depict actual testing



Anchored Keys Anchored skirt design helps resist picking

Co-molded rubber trim around edges Absorbs shock from accidental drops and bumps



### NEW TESTING PROCESSES FOR EDUCATION<sup>39</sup>

## Trommel Test

Das ProBook muss nach 200 Umdrehungen in der Trommel noch funktionsfähig sein!

## 122cm Sturztest

auf Hartholz & 76cm auf Beton (insgesamt jeweils 26 Stürze auf diverse Ecken – danach muss es noch funktionieren!)



### Neues Tastaturdesign erschwert das "rauspicken" von Tasten

#### Skirt Type (new)

Skirt feature is round of the key, the appearance always looks even,

Difficult to pick keycap, even using tool.





## Keycap Pick Resistant Capability

#### Skirt Type (new)

End user has no way to pick keycap up without any tool.

The gap between keycap and lattice is around 0.3~0.4mm, and the skirt feature makes this gap become not straight. It's not easy to get into bottom of the keycap through the around gap.

Even the tool get into the gap, this angle still not easy for picking keycap up.



#### Anchor Type (old)

End user has no way to pick keycap up without any tool.

Two anchor feature only covered two corners of the key, user still can pick keycap from the other two corners easily. The gap between keycap and lattice is 0.5mm, and it's straight, tool can reach to bottom of keycap to picking keycap easily.



Still available for picking



## 20% of the notebook is recycled material

Increase recycled material by 9x, gen over gen, from 11 grams to 90 grams

## Versatile Design 5 modes

Flip, fold, and learn with a 360° hinge that adapts to content creation, collaboration, and presentation in a range of modes.





## HP PRIVACY CAMERA SCHIEBER

Webcams are integral to multimodal learning so it's critical students and teachers are protected

75° Field of View camera has NEW protective firmware to protect from hackers

The integrated HP Privacy Camera physically blocks the lens of your webcam to protect against malicious surveillance You don't have to tape over your webcam to feel safe from malicious surveillance

## PRODUCT WALKTHROUGH DESIGNED FOR LEARNING

User-facing camera

with dual array mic for clear collaboration

#### HP Privacy Camera

with physical shutter that covers the webcam and microphones

#### 5 megapixels world-facing camera

enables capture in tablet or tent mode for project-based learning experiences (optional)

#### IPS Panel (optional)

Better viewing experience when the device is shared between students

Textured recycled material Minimizes fingerprints and cosmetic scratches

Thinnest rugged convertible<sup>7</sup> 21mm thin, slips into a backpack with ease



#### Authentic Pen Experience

Active Digitizer and Optional Active HP Pro Pen\* Reinforced pen with longer battery life Pen holder and tether included

#### HP Interactive Light

Allows spontaneous group breakout sessions, moderated Q&As, and easy visual ID of online status

#### Flexible & Adaptable

360° hinge transforms from laptop to tent, stand, tablet and NEW book mode enabling students to choose how they learn

#### Power for learning

Latest Intel<sup>®</sup> Celeron, Pentium processors with Quad-Core option up to 8GB memory and 256GB storage<sup>11</sup>

Reliable fleet updates

RJ-45 port for quick imaging and access in areas without Wi-Fi<sup>®</sup>

#### Battery life beyond the school day

Long battery life with HP Fast Charging Technology up to 16:45h as per Mobile Mark 14

#### Battery ship mode setting

Optimize battery life during summer time storage. Ship mode setting turns on once battery has discharged to 2% in off state or 21 days has elapsed in off state



### PEN AND TOUCH EXPERIANCE

Naturally annotate, draw, solve math problems, and take notes on-screen





An authentic experience that feels like a real pen or paintbrush with optional active HP Pro Pen\*

Supports Windows Ink<sup>11</sup>, enabling pendriven experiences that help set ideas in motion with the Windows Ink Workspace including Screen Sketch, Sketchpad and Sticky Notes

Passive Stylus also works on touch screen to navigate the page





### HP Pro Pen

#### Digitaler aktiver Stift, der speziell für den Bildungsmarkt entwickelt wurde

UVP €39,00 als Zubehör mit der Produktnummer 8JU62AA

Alternativ schon mit in der Notebook Packung des ProBook x360 11 G5 (dann ingesamt günstiger).





## HP Active PRO PEN ideal for NOTETAKING

#### WITH SPARE TIPS & JSB HOLDER

Durable pen lasts throughout the school year

### GEN OVER GEN ENHANCEMENTS

- Improved durability 2x stronger, reinforced pen tip
- Optimized battery life, full school year ۲
- Enhanced ID grip & length

Park your pen in without compromising performance with convenient & improved adhesive option





Easy-to-replace battery



Annotate, take notes, and create

**Palm rejection** 



Easy to store – pen readily available throughout the day















## Neuer Stift für Schule entwickelt – HP Pro Pen

Feature	HP Active Pen	HP Pro Pen	Comments	
Tip Support	Standard POM	Rugged POM		
Color	Silver	black		
Size	D: 9.5mm L: 123.3mm	D: 9.5mm L: 140mm	Notetaking pen user requirements: 130 – 150 mm (with 140 being ideal) length and 9 – 10 mm diameter	
Weight	14.5g	17g	Human factors spec: 18g Easier grip improves handwriting	
Center of Gravity	60%	<b>56%</b>	Almost equally balanced pen to support notetaking with ease	
Pen Clip	Yes	No	Fewer pieces to break	
Drop test	3 ft	4ft	Improved durability	
Tip bending overload	3 kgf	6-6.5kgf	Reinforced cone and nib (2x overload force)	
Features for Entry Level Pen	AES 1.0, Activation Force 15-20g, Pen Loop Attachment, No Tilt or Tail Eraser			
Pen tip			Durable tip and cone reduces tip getting jammed inside chassis	

#### HP Pro Pen

#### Up to 11,7 months battery life!

Pro Pen will go into a lower power state (stand by) sooner for battery savings. HP Active Pen is 10 minutes of inactivity vs HP Pro Pen is 2 minutes of inactivity.

 Improved durability – Reinforced cone and nib (2x overload force)
Optimized battery life - Firmware settings (56% improvement, 7.5mths-11.7mths)
Cost - Improved starting price
Enhanced ID - Easy to grip &
Storage - USB holder

### ZWEI INTEGRIERTE KAMERAS

## First Camera: Faces the user and enables video interaction with others



#### Camera placement:

## 5MP Second Camera: enables explorer mode to capture and share experiences in tablet mode



- Both cameras are placed inwards to protect from damage when device is closed and to protect student and teacher privacy
- Second camera is placed in the corner to avoid it being blocked by students' hands in tablet mode

2<sup>nd</sup> camera is optional

All product views are illustrations and might not represent actual product, screens.

#### Connect, Develop & Explore

### Navigational compass

Turn your Windows device into a compass Great for outdoor navigation and geocaching

- Open free Microsoft compass app and use it to identify Cardinal directions and locations
- Multi-discipline, active learning
  - Scavenger hunts, building and landscape projects



Camera Use Case: Windows Mixed Reality Viewer Blends digital & real world images

- Use PC camera to overlay digital 3D objects in the real world
  - Change size and orientation
- Multi-discipline, active learning
  - Create picture, collage, video, and more



### HP INTERACTIVE LIGHT

HP Activity Light provides visual communication and can be controlled with the included HP application

Outside of the application, it will also perform the following:

- White light when a student is connected to a network
- Blinking red light when the unit only has less than 20% battery life



## Included software to increase classroom interaction





Conduct quick quizzes and polls

#### HP Interactive Light \_ C × R & B C B A O Help Test Clust Group Atout

	Over	Scoup About
WHITE	GREEN	RED

Organize group breakouts



## OPTIMIZE BATTERY LIFE DURING SUMMER STORAGE

Auto Ship mode setting turns on once the battery has discharged to 2% in off state or 21 days has elapsed in off state. No dead batteries when school is back in session!



# HP ProBook x360 11 EE G5: Designed with the Environment in Mind

Environmental Product Design and the Circular Economy:

#### **Restricted Materials:**

- Beryllium Free
- Cadmium Free
- Low halogen system<sup>18</sup>

#### Recycled Content:

- Targeted to have about 20% Recycled Plastic Content in Product
- 100% Sustainably Sourced Packaging
- 35% Recycled content on Cardboard boxes
- 100% Paper Fiber Based cushion
- 5-in-1 units Eco-Packaging option

#### Targeted ECO Labels and Recognition:





**ENERGY STAR®** 

Certified

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TCO Certified



## DEFINITION AND COMPARISON G3 vs G5

FEATURES	VORGÄNGERGERÄT: HP Probook 11 x360 G3 EE	HP Probook 11 x360 G5 EE
Weight	Starting at 1.44kg/3.18lbs (touch)	Starting at 1.43kg/ 3.16lb (touch)
Z-height	19.9mm	21.2 mm
Dimensions	300 x 205.95 mm	300 x 205.3 mm
Display Options	11.6" diagonal HD TN, 11.6" diagonal HD IPS	11.6" diagonal HD TN, 11.6" diagonal HD IPS
Processor	Intel Pentium® N5000 Intel Celeron® Dual Core N4000 Intel Celeron® Quad Core N4100	Intel Pentium® Silver Quad Core N5030 Intel Celeron® Dual Core N4020 Intel Celeron® Quad Core N4120
UMA Graphics	Intel UHD 600/605	Intel UHD 600/605
Memory	4GB/8GB DDR4 onboard	4GB/8GB DDR4 onboard
Storage Support	64GB eMMC, 128GB/256GB SSD	64GB eMMC, 128GB/256GB SSD
Battery Type	(3 cell-48Whr) Long Life Battery 90% in 90 mins <sup>12</sup>	(3 cell-48Whr) Long Life Battery 90% in 90 mins <sup>12</sup>
Keyboard	pick and minor spill-resistant protection	pick resistant anchored keyboard spill-resistant protection
Camera	HD Camera Option, HP Privacy Camera	HD Camera Option, HP Privacy Camera
Connectivity	2x2 AC Realtek 2x2 AC + BT 5.0	WiFi 6 (2x2) + BT 5.0 with MU-MIM0 <sup>1</sup>
Ports	(2) USB 3.1, USB-C (data, power in/out charging), HDMI, 3.5mm audio, SD, DC-in RJ45, Fireball AES 1.0 pen (opt), 1 MP HD User-facing camera, 5MP world facing camera (opt)	(2) USB 3.1, USB-C (data, power in/out charging), HDMI, 3.5mm audio, DC-in, RJ45, Wacom AES 1.0 pen (opt), 1 MP HD User-facing camera, 5MP world facing camera (opt)
Security & SW	HP BIOS, Discrete TPM 2.0, K-Lock Slot, Power Manager, Windows Mixed Reality Viewer, HP BIOSphere, MIK, HP Interactive Light App, Volume Manager	HP BIOS, Discrete TPM 2.0, K-Lock Slot, Power Manager, Windows Mixed Reality Viewer, HP BIOSphere, Hardware Root of Trust, MIK, HP Interactive Light App, Privacy Camera with enhanced security firmware, WLAN SAR accelerometer
Durability	Designed to pass 9 MIL-STD 810G, Corning <sup>®</sup> Gorilla <sup>®</sup> Glass Touch Panel	Passes 13 MIL-STD 810G <sup>2</sup> , Corning <sup>®</sup> Gorilla <sup>®</sup> Glass Touch Panel, Glass Touch Panel, 122 cm drop on plywood, Reinforced USB-C, Enhanced co-molded rubber bumper
Accessory	Power bank, charging cart, share board, USB-C dock, Wacom AES 1.0 pen	Power bank, charging cart, share board, USB-C dock, Wacom AES 1.0 pen

## HP ProBook x360 11 G5 & G6 EE Ecosystem





- Improve learning outcomes and engage students with powerful, durable, flexible ProBook PCs and accessories.
- **Stay powered** with a smart adapter or charge on the go with a power bank.
- Take notes your way, with a versatile pen and touch screen option for you to write or type notes whenever you need.

## HP ProBook x360 11 G5 & G6 EE Ecosystem



## HP COMMERCIAL 11" EDU PORTFOLIO OVERVIEW



#### "EE" devices meet the following requirements:

- Device has co-molded rubber trim and passes MIL-STD 810G plus HP's education-specific tests
- 9+ hours of battery life
- 2x2 AC WLAN or Wi-Fi 6
- HP School Pack pre-installed (Windows devices only)

\*Sold Separately

(HP Classroom Manager\*)

## THE HP PROBOOK x360 11 G5 EE SERIES

Improve learning outcomes, save teachers time, and engage students with the performance, versatility, and manageability of the HP ProBook x360 11 G5 Education Edition.

#### Key Benefits

Adapts to Any Learning Style: Maximize blended learning with a synchronized 360° hinge that lets students type, touch, write, capture, draw, and read in laptop, tablet, tent, stand or book mode. Do even more with the optional, durable classroom-ready pen

**Rugged and learning-ready without the bulk:** Experience a thin and light yet durable device that can survive the school day with strengthened corners, co-molded rubber trim, a reinforced power port, and pick-resistant keyboard.

**IT-Friendly, Manageable & Secure:** Efficiently manage and protect your devices, even with limited IT resources, with integrated software tools like the HP Manageability Integration Kit4 and HP BIOSphere Gen5. Deter remote visual hacking with the HP Privacy Camera.







Long Battery Life



#### Footnotes and disclaimers

- 1. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ax devices. Only available in countries where 802.11ax is supported.
- 2. MIL STD 810G testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.
- 3. 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. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- 4. HP BIOSphere Gen5 is available on select HP Pro and Elite PCs. See product specifications for details. Features may vary depending on the platform and configurations.
- 5. Based on internal testing vs. previous generation product with 802.11ac wireless LAN module.
- 6. Testing was done using up to 350ml of water carefully and slowly poured between keys "G" and "H" under lab conditions. Test results are not a guarantee of future performance under these test conditions. Any accidental damage requires an optional HP Accidental Damage Protection Care Pack.
- 7. Placeholder for World's thinnest rugged convertible notebook claim
- 8. Charging carts sold separately
- 9. HP Manageability Integration Kit can be downloaded from <u>http://www.hp.com/go/clientmanagement</u>
- 10. HP Care Packs are sold separately. 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. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
- 11. USB Type-CTM and USB-C are trademarks of USB Implementers Forum.
- 12. Recharges the battery up to 90% within 90 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook and no external devices are connected. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.
- 13. USB Type-C<sup>™</sup> and USB-C are trademarks of USB Implementers Forum.
- 14. Windows 10/MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See <a href="https://www.bapco.com">www.bapco.com</a> for additional details.
- 15. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
- 16. Final battery life to be published at launch. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details
- 17. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack. (Reinforced corners To support corner drops and 122cm Drop Test Able to withstand up to 47 in (122cm) over plywood, reflecting height of lab desk or standing arm height)
- 18. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

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