OnePlus 8 Pro Mobile

OnePlus 8 Pro Mobile **The OnePlus 8 Pro is a premium Android smartphone released by OnePlus in April 2020 as part of the OnePlus 8 series.** Here's an overview of its key features, specifications, and current status:

Display:

- 6.78-inch Fluid AMOLED
- QHD+ (3168 × 1440 pixels) resolution
- 120Hz refresh rate
- HDR10+ & Always-on Display

Processor:

- Qualcomm Snapdragon 865 (5G-enabled)
- Adreno 650 GPU

RAM & Storage:

- 8GB/12GB LPDDR5 RAM
- 128GB/256GB UFS 3.0 storage (non-expandable)

Cameras:

Rear Quad Camera:

- 48MP (Sony IMX689, f/1.78, OIS) – Main
- 48MP Ultra-wide (f/2.2, 120° FOV)
- 8MP Telephoto (3x hybrid zoom, OIS)
- 5MP Color Filter (gimmicky)

Front Camera:

- 16MP (f/2.45, fixed focus)

Battery & Charging:

- 4510mAh battery
- Warp Charge 30T (30W wired fast charging)
- Warp Charge 30 Wireless (30W wireless charging)
- Reverse wireless charging

Software:

- Originally launched with Oxygen OS (Android 10)
- Final update: Android 13 (no further major OS updates expected)

Other Features:

- In-display fingerprint sensor
- 5G support (depending on model)
- Dual stereo speakers
- No 3.5mm headphone jack
- Pros & Cons (2024 Perspective):

Pros:

- Still a fast performer (SD865 holds up well)
- High-quality 120Hz QHD+ display
- Good battery life & fast charging
- Premium build & IP68 rating

- No Android 14/15 updates (stuck on Android 13)
- Color filter camera was gimmicky
- No microSD slot
- Heating issues under heavy use

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1. Performance in 2024: Is the OnePlus 8 Pro Still Fast?

- Snapdragon 865 remains a capable flagship chip in 2024.
- Benchmarks (2024):
- Geek bench 6: ~900 (Single-core), ~3200 (Multi-core)
- An Tu Tu v10: ~600,000 (similar to mid-range 2023 phones like DIMENSTY 8100)
- Battery Health: After 4 years, battery degradation (~70-80% capacity) may require replacement.
- Thermals: Can get warm under heavy gaming (better with a cooling case).
- Verdict: Still smooth for daily use, but not as power-efficient as newer chips (e.g., SD 8 Gen 2/3).

2. Software & Custom ROM Support (2024 Update)

- Official Support (Ended)
- Last OS Update: Android 13 (Oxygen OS 13.1)
- Security Patches: Ended in late 2023 (no guaranteed updates).
- Custom ROMs (Best Option for Longevity)
- Lineage OS 21 (Android 14) – Stable, good daily driver.
- Pixel Experience – Google Pixel-like UI.
- Paranoid Android – Feature-rich.
- Evolution X – Customizable with extra features.
- Flashing a ROM?

Pros:

- Gets Android 14/15 support.
- Better battery optimization.
- Removes bloatware.

Cons:

- Wipes data (backup needed).
- Safety Net/Netflix HD issues (fixable with MAGISK).
- No OTA updates (manual flashing required).
- Verdict: Still usable with custom ROMs, but requires tinkering.

3. Camera Review (2024 Perspective)

Daylight Photos:

- 48MP main sensor still takes great shots (better than many 2024 mid-range phones).
- Ultra-wide (48MP) holds up well (better than newer 8MP ultra-wide cameras).
- Telephoto (8MP, 3x zoom) is decent but loses detail compared to periscope lenses.

Low-Light Performance:

- Good but not great (lacks computational photography of Pixel/iPhone).
- Nightscape mode helps but is outdated vs. Google Night Sight.

Video Recording:

- 4K@60fps (main cam only, no OIS on ultra-wide).
- No 8K recording (unlike newer flagships).
- Verdict: Still a good camera phone, but outclassed by 2024 mid-rangers like Pixel 7a or Nothing Phone (2).
- Verdict:
- Good for casual/mid-range gaming.
- Struggles with heavy games (Gen shin, Star Rail) due to thermal limits.
- Solution: Use a cooler or lower settings.

5. Battery Life & Charging (2024)

- Original Battery (4510mAh) → Now ~3500-3800mAh (after degradation).
- Screen-on Time (SOT):
- 4-5 HRS (120Hz QHD+)
- 5-6 HRS (60Hz FHD+)
- Charging Speeds:
- 30W wired (0-100% in ~65 mins).
- 30W wireless (slower than modern 50W+ standards).
- Verdict: Battery replacement (~$30) recommended for better longevity.

6. Should You Buy the OnePlus 8 Pro in 2024?

Buy If:

- You don't mind custom ROMs (for Android 14+).
- Avoid If:
- You need long software support (no Android 14/15 officially).
- You play heavy games (thermal throttling).
- You want better cameras (Pixel 7a is better).

1. Hidden Features & Niche Tricks (Still Useful in 2024)

- Ultra-Wide Astrophotography Mode (via G Cam mod) – Works better than stock cam.
- MEMC (Motion Smoothing) – Enabled via OnePlus Lab, adds 120Hz interpolation to videos.
- DC Dimming (Reduces PWM flicker in low light) – In Settings > Display.
- Screen-Off Gestures – Draw < > for music control, O for camera, V for flashlight.
- Parallel Apps – Clone WhatsApp, Instagram, etc. (Oxygen OS feature).
- Quick Launch – Hold power button + fingerprint to open apps instantly.

2. Long-Term Durability Test (4 Years Later)

Display:

- No widespread green tint/burn-in issues (unlike some Samsung OLEDs).
- 120Hz still smooth, but touch latency feels slightly worse vs. new phones.

Build Quality:

- IP68 still holds up – Survives rain/drops in water (tested by users).
- Alert slider remains tactile (no loosening).
- Battery Degradation:
- Average health after 4 years: 75-85% (varies by usage).
- Replacement cost: $20-$50 (DIY kits available).

3. MODDING & Hacking Potential (2024)

- A. Kernel Tweaks for Better Performance
- Underclocking/Under VOLTING(via Franco Kernel) – Reduces heat in games.
- F2FS File System Boost – Faster storage speeds (via custom ROMs).
- 120Hz Force-Enable – Works in apps that cap at 60Hz (e.g., Google Maps).
- B. Unlocking Bootloader & Rooting
- Still fully unlockable (OnePlus allows OEM unlocking).

MAGISK Modules for 2024:

- AI Cam Mod – Improves post-processing.
- Battery Saver Extreme – Disables cores for better efficiency.
- Dolby ATMOS Revival – Restores speaker tuning lost in updates.
- C. Windows 11 ARM Support (via Project Renegade)
- Can dual-boot Windows 11 (slow but functional for light tasks).

5. Niche Use Cases in 2024

- A. As a Dedicated Gaming Phone
- Attach a cooler (Black Shark Fun Cooler Pro) for sustained performance.
- Map triggers via Game space (for COD Mobile/BGMI).
- B. As a Secondary Android TV Remote
- IR Blaster mod (via USB-C dongle) – Controls TVs/ACs.

C. For Linux/Dev Work

- TERMUX + ANDRONIX – Run Ubuntu CLI tools.
- USB-C HDMI out (Desktop Mode via custom ROMs).
- D. For Content Creators
- 4K Log Footage (via Filmic Pro).
- External Mic Support (USB-C or Bluetooth).

7. Final Decision Tree (Should You Buy It?)

- OnePlus 8 Pro Mobile Yes, if you:
- Want a cheap 120Hz QHD+ display.
- Don't mind custom ROMs/no updates.
- Need wireless charging + IP68 at $200.
- No, if you:
- Want long-term software support.
- Play heavy games daily.
- Need the best cameras.

1. Hardware Teardown & Repair ability (i Fixit-Style Analysis)

- Score: 7.5/10 (Better than modern flagships)
- Easiest to Replace:
- Battery (adhesive pull-tabs, no soldering)
- Display (separate mid-frame avoids full disassembly)
- Hardest Parts:
- Wireless charging coil (glued to back glass)
- Front camera (requires display removal)
- Special Tools Needed:
- Plastic pry tools (for back glass)
- T3 TORX screwdriver

2. 2024 Network Compatibility (5G/4G Bands)

- OnePlus 8 Pro Mobile Works on:
- T-Mobile/Google Fi (Full 5G) – N41, N71 bands supported
- AT&T (LTE only) – Missing some 5G bands (no C-band)
- Verizon (LTE only) – Not whitelisted for 5G
- International (Europe/Asia) – Supports most LTE bands
- 5G Future-Proofing Issue:
- Lacks mm Wave (Ultra Wideband) – Won't benefit from Verizon/AT&T's fastest 5G.
- Check Your Carrier: Use KIMOVILs Frequency Checker before buying.

3. Extreme Thermal Performance Hacks

- A. DIY Cooling Mods
- Copper Shim Mod – Add 0.5mm copper shims between SoC and vapor chamber (lowers temps by 3-5°C).
- Thermal Pad Upgrade – Replace stock pads with Gelid GP Extreme (better heat transfer).