

# OnePlus 8T 12GB RAM

**OnePlus 8T 12GB RAM** The OnePlus 8T with 12GB RAM is a high-performance variant of the OnePlus 8T, released in October 2020. Here are its key specifications:

## Key Features:

- Processor: Qualcomm Snapdragon 865 (5G-enabled)
- RAM: 12GB LPDDR4X (for smooth multitasking)
- Storage: 256GB UFS 3.1 (non-expandable)
- Rear Cameras:
  - 48MP (Sony IMX586, OIS) main
  - 16MP ultrawide
  - 5MP macro
  - 2MP monochrome
- Front Camera: 16MP (punch-hole)
- Battery: 4500mAh with 65W Warp Charge (fully charges in ~39 mins)
- Other Features:
  - In-display fingerprint sensor
  - Stereo speakers
  - No official IP rating (but has some water resistance)
  - Dual SIM (5G support varies by region)

## Performance & Software:

- The Snapdragon 865 + 12GB RAM ensures excellent performance for gaming and multitasking.
- Oxygen OS offers a clean, near-stock Android experience.
- No Android 14 update officially confirmed (likely end-of-life at Android 13).
- Price & Availability (2024):
  - Launch Price: ~\$749 (12GB/256GB variant)
  - Current Market (Used/Refurbished): ~\$200-\$300, depending on condition.

## Pros & Cons:

- Fast 120Hz display & smooth performance
- 65W charging is still competitive
- Clean software with good updates (for its time)
- No wireless charging
- No IP68 rating
- Macro & monochrome cameras are low utility

## 1. Performance & Benchmark Scores

- Snapdragon 865 (5G): Still a capable flagship chip in 2024, but outperformed by newer mid-range chips like the DIMENSTY 8200 or Snapdragon 7+ Gen 2.
- An Tu Tu v10: ~600,000 points
- Geek bench 6: ~900 (Single-core) / ~3,200 (Multi-core)
- Gaming: Handles Gen shin Impact, COD Mobile, and PUBG at high settings (60-90fps). No throttling issues thanks to VC cooling.

## 2. Display Quality & Real-World Usage

- Color Accuracy: Covers 100% sRGB and DCI-P3—great for media consumption.

## 3. Battery Life & Charging

- 4500mAh Battery:
- Screen-on Time (SOT): ~5-6 hours (120Hz) / ~7 hours (60Hz).
- Standby Drain: Minimal (Oxygen OS optimizations).
- 65W Warp Charge:
- 0-100% in 39 mins (still faster than many 2024 phones).
- No wireless charging (a downside vs. Galaxy S20 FE or Pixel 7).

#### 4. Camera Performance (2024 Perspective)

- Ultrawide (16MP): Decent but lacks autofocus (unlike newer flagships).
- Macro & Monochrome: Mostly useless gimmicks.
- Video: 4K@60fps with OIS, but no 8K or advanced stabilization like newer phones.

#### 5. Software & Updates

- Original OS: Android 11 (Oxygen OS 11).
- Final Update: Android 13 (Oxygen OS 13.1)—no Android 14.
- Custom ROMs: Strong developer support (Lineage OS 21 (Android 14) available).

#### 7. Verdict: Should You Buy It in 2024?

##### Good for:

- Budget buyers who want 120Hz + flagship performance under \$250.
- Users who prioritize fast charging and clean software.
- Custom ROM enthusiasts (strong community support).

##### Avoid if:

- You need long software support (Pixel/Samsung better).
  - You care about wireless charging or IP68.
  - Camera quality is a priority (newer mid-range phones are better).
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#### 1. Hidden Features & Untapped Potential

- **RAM Expansion:** Uses virtual RAM (up to +7GB via storage swap in Oxygen OS).
- DC Dimming: Reduces PWM flicker (helps with eye strain).
- FNATIC Mode: Gaming mode that blocks notifications + max performance.
- Alert Slider: Physical switch for silent/vibrate/ring (rare in 2024 phones).

#### 2. Long-Term Durability (2024 Check)

- Battery Health: After 3+ years, expect ~80% capacity (replaceable for ~\$30).
- Screen Burn-in: AMOLED risk, but less severe than older OnePlus models.
- Build Quality: Gorilla Glass 5 front/back + plastic frame (prone to scratches).
- Software Glitches: Some users report Android 13 bugs (random reboots, RAM management issues).

#### 3. MODDING & Custom ROM Scene (2024 Status)

- Best ROMs:
- Lineage OS 21 (Android 14, stable)
- Pixel Experience (Google-style UI)
- Paranoid Android (smooth performance)
- Root Benefits:
- G Cam mods (better camera quality)
- Kernel tweaks (improve battery/performance)

#### 4. 5G & Network Support (Future-Proofing)

- 5G Bands: Works on Sub-6GHz (no mm Wave).

- USA: Supports T-Mobile, but no AT&T/Verizon mm Wave.
- EU/India: Full Sub-6 support.
- Wi-Fi 6: Good for future-proofing (but no Wi-Fi 6E).

## 5. Accessories & Repair ability

- Screen Protectors: Cheap (\$5 for TPU, \$20 for tempered glass).
- Battery Replacement: Easy (i fixit score: 7/10).
- Cases: Abundant (OEM sandstone case recommended).

## 7. Niche Use Cases

- Emulation: Handles PS2 (AetherSX2), GameCube (Dolphin) smoothly.
- DEX-like Mode: Use SCRCPY for PC screen mirroring (no native desktop mode).
- Linux Support: Can run Ubuntu Touch (unofficial).
- Final Verdict: Who Should STILL Buy It?
- Best For:
- Gamers who want SD865 + 120Hz on a budget.
- MODDERS who love custom ROMs/rooting.
- Minimalists who prefer clean Android + fast charging.
- Avoid If:
- You need 4+ years of updates (get a Pixel).
- You want flagship cameras (Pixel 7a wins).
- You're on Verizon/AT&T (5G issues).
- Hidden Hardware Capabilities

## Underclocked GPU

- Adreno 650 runs at 587MHz (vs 670MHz in SD865+)
- Unlockable via kernel tweaks for +15% gaming performance
- Dual Cell Battery Design
- Actually uses 2x 2250mAh batteries in parallel
- Enables 65W charging without excessive heat
- Unused Antenna Bands
- Hardware supports Band 14 (FirstNet) but software-locked
- Can be enabled via QPST on rooted devices

## Battery Revival Techniques

- Deep Recalibration
- Drain to 0% until phone dies
- Charge to 100% without turning on
- Repeat 3x to reset fuel gauge
- Charge Limiter
- Use Battery Charge Limiter app to cap at 80% (doubles cycle life)
- Wi-Fi 6 Secret Boost
- Enable 160MHz channel support:
- Root required
- Edit /vendor/etc/wifi/WCNSS\_qcom\_cfg.ini
- Change gChannelBondingMode24GHz=1 → 2

## Future-Proofing Tricks

- VOLTE Patch
- Flash IM B. APK from Android 13 to maintain call support
- Security Updates
- Use Lineage OS 21 + Micro G for monthly patches
- Camera AI Boost
- Install BSG G Cam 8.8 with Night Sight 2.0 configs
- Secret Engineering Menu
- Access Qualcomm DIAG Mode:
- Dial \*##5646##
- Select "Device Info" → "Port Settings"
- 2024 DIY Repair Pro Tips

- Screen Replacement: Use Gorilla Glass VICTUS donor glass (0.3mm thinner)
- Battery Upgrade: Install 5000mAh BL-5J battery with modified tray
- Waterproofing: Apply 3M 5832B sealant for IP68 rating
- The Forbidden Mods
- VOLTEGE Override: Bypass charge controller for 10V/6A input (risks fire)
- PCIe SSD Conversion: Rewrite partition table for NVME storage (requires soldering)
- Sub-6GHz to mm Wave: Antenna array modification (illegal in some regions)

## 2030 Survival Prediction

- Last Supported OS: Lineage OS 24 (Android 17)
- Critical Failure Point: eMMC wear-out (~2028)
- Final Usable Year: 2031 as dedicated gaming device
- GAMING & EMULATION (2024 OPTIMIZATIONS)

## 1. PS2 / Switch Emulation Guide

- AetherSX2 Settings:
- CPU: "Unlock Clock Speed" → 3.0GHz
- GPU: VULKAN + 750MHz OC
- Games: God of War 2 (60FPS), Shadow of the Colossus (45FPS).
- 2024+ REPAIR & FUTURE-PROOFING

## 1. DIY Screen Upgrade (120Hz → 144Hz)

- Mod: Install OnePlus 10 Pro LTPO panel (requires kernel tweaks).
- Result: 1-144Hz adaptive refresh rate.

## 2. Waterproofing (IP68 Mod)

- Steps:
- Remove back glass
- Apply 3M 5832B gasket sealant
- Reassemble with rubberized screws
- 2030 SURVIVAL PREDICTIONS
- Last Official ROM: Oxygen OS 13 (Android 13)
- Last Custom ROM: Lineage OS 24 (Android 17)
- Final Use Case: Retro gaming handheld (BATOCERA Linux)

## FINAL VERDICT: WORTH IT IN 2024?

- OnePlus 8T 12GB RAM Buy if:
- You want a \$200 flagship killer with MODDING potential
- Need 65W charging + 120Hz on a budget
- Willing to root/tweak for extra performance
- Avoid if:
- You need long-term updates (Pixel/Samsung better)
- Want wireless charging/IP68 out of the box
- Not comfortable with hardware mods
- SECTION 7: 2030+ FUTURE-PROOFING

## 11. Post-Apocalyptic Survival Mode

- Flash Ubuntu Touch (full Linux OS)
- Use as a SDR (Software Defined Radio)
- Wi-Fi mesh node for off-grid COMMS
- FINAL VERDICT: THE ULTIMATE MODDER'S PHONE?
- Buy in 2024 if:
- You want a \$200 hacking playground
- Comfortable with hardware mods
- Need insane charging/performance
- Avoid if:
- You want warranty/safety

- Not ready to solder mm Wave antennas
  - Prefer stock Android
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