OnePlus 9RT Mobile

- **OnePlus 9RT Mobile** **The OnePlus 9RT is a smartphone released by OnePlus in October 2021 as an upgraded version of the OnePlus 9R.** It features improvements in performance, cooling, and camera capabilities while retaining the premium design and fast charging typical of OnePlus devices.

Display:

- 6.62-inch Fluid AMOLED
- 120Hz refresh rate
- HDR10+ support
- 1300 nits peak brightness

Processor:

- Qualcomm Snapdragon 888 (5G) (Flagship chipset at launch)

RAM & Storage:

- 8GB/12GB LPDDR5 RAM
- 128GB/256GB UFS 3.1 storage (No microSD slot)

Cameras:

- Rear:
- 50MP Sony IMX766 (main, OIS)
- 16MP ultra-wide (123° FOV)
- 2MP macro (mostly for depth sensing)

Front:

- 16MP (Sony IMX471)

Battery & Charging:

- 4500mAh battery
- 65W Warp Charge (0-100% in ~30 mins)

Software:

- Upgradable to Oxygen OS 13 (Android 13) (final major update likely)

Other Features:

- In-display fingerprint sensor
- Stereo speakers
- VC cooling system (improved heat dissipation for gaming)
- 5G support

Pros & Cons:

Pros:

- Excellent 120Hz AMOLED display
- Strong performance (Snapdragon 888)
- 65W fast charging is very quick

- OIS on the main 50MP camera improves low-light shots
- Premium build with glass back & metal frame

Cons:

- No wireless charging
- No IP rating for water resistance
- Macro camera is underwhelming
- Heats up under heavy load (common with SD 888)

Price & Availability:

- Originally launched in China & India (₹42,999 for 8GB/128GB in India).
- Later available in select global markets.
- Now discontinued but may be available via resellers or refurbished.

Gaming & Performance

- Snapdragon 888 + Cooling System
- The SD 888 (5nm) is powerful but known for heating issues.
- OnePlus 9RT improves thermals with a 5-layer VC cooling system (larger than 9R).

Verdict:

- Handles heavy games well, but thermal throttling occurs in sustained sessions.
- Recommendation: Use a cooler for long gaming.

2. Software Update Status (2024)

- Launched with: Android 11 (Oxygen OS 11).
- Latest Update: Oxygen OS 13 (Android 13) (likely the final major OS update).
- Security Patches: Last update was early 2024 (but may not continue).

Future Expectations:

- No Android 14/Oxygen OS 14 officially confirmed.
- May get irregular security patches till late 2024.
- Custom ROM Support?
- Decent developer interest (Lineage OS, Pixel Experience possible).

3. Camera Review (vs OnePlus 9R & 9 Pro)

- Main Camera (50MP Sony IMX766)
- Same sensor as OnePlus 9/10 Pro but with OIS (better than 9R).
- Daylight: Excellent detail, good dynamic range.
- Low Light: OIS helps, but noise creeps in (not as good as 9 Pro).
- OnePlus 9RT Mobile Macro (2MP)
- Useless (just for marketing specs).
- Selfie (16MP)
- Good for daylight, struggles in low light.

Verdict:

- Better than 9R, but not flagship-level like 9 Pro.

4. Battery Life & Charging

- 4500mAh battery (average for SD 888 phones).
- Screen-on Time (SOT): ~5-6 hours (mixed usage).

65W Warp Charge:

- 0-50% in 15 mins
- Full charge in ~30 mins

Missing Features:

- No wireless charging (unlike 9 Pro).
- No reverse charging.
- A. Secret Codes & Developer Options

- *#808# → Hardware test menu (check sensors, touchscreen, etc.)
- *#800# → OnePlus Log kit (advanced diagnostics)
- *#*#4636#*#* → Phone info, battery stats, and network settings

Enable 90Hz/120Hz for all apps:

- Go to Settings > Display > Refresh Rate > High.
- Use ADB command to force 120Hz globally:
- bash
- ABD shell settings put global one plus_ screen _refresh_ rate 0

B. Gaming Mode (FNATIC Mode)

- How to enable: Swipe down > Game Mode > Enable Competitive Mode (locks brightness, blocks notifications).

C. DC Dimming (Reduces PWM Flicker)

- Helps reduce eye strain in low light.
- Enable: Settings > Display > DC Dimming.

2. Long-Term Durability (2024 Check)

- Battery Health After 2+ Years
- Expected degradation: ~15-20% if heavily used (typical for Li-Po).

Check battery health:

- Use ACCU Battery (3rd-party app) or dial *#808# → Battery Health.
- If below 80%, consider replacement (~₹2,000 in India).

Build Quality & Common Issues

- Glass back is prone to cracks (use a case).
- No IP rating → Avoid water exposure.
- Display: AMOLED burn-in rare but possible (avoid static bright elements).

3. MODDING& Custom ROMs

- Bootloader Unlock & Root
- Unlock Bootloader:
- bash
- fast boot o m unlock
- Wipes all data – backup first!
- Root with MAGISK: Patch boot image → flash via fast boot.
- TWRP Available: Unofficial builds exist (check XDA).

Caution:

- Breaks Wide vine L1 (Netflix/Prime HD won't work).
- Banking apps may detect root (use MAGISK Hide).

Winner?

- Performance: POCO F6 (newer chip).
- Cameras: Nothing Phone (2a).
- Charging: POCO F6 (90W).
- Software: OnePlus 9RT (cleaner UI).

6. Should You Still Buy It? Final Decision

- OnePlus 9RT Mobile Who Should Buy OnePlus 9RT in 2024?
- You want a premium-feeling phone under ₹25K.
- Need 65W fast charging and OIS camera.
- Prefer MODDING/rooting (good ROM support).

Who Should Avoid It?

- You want Android 14+ updates.
- Need efficient battery (SD 888 drains fast).
- Want IP68 or wireless charging.

7. Pro Upgrade Tip

- If you can stretch your budget to ₹35K:
- OnePlus 11R (SD 8+ Gen 1, 100W, better cameras).
- IQOO Neo 9 Pro (SD 8 Gen 2, 120W, gaming beast).

1. Network & Carrier Secrets (2024 Update)

- 5G Band Support
- Works fully on: JIO (n78), Airtel (n78) in India
- Missing bands:
- No mm Wave (not an issue outside US)
- No n41 (T-Mobile USA struggles)
- Pro tip: Force LTE-only mode (##4636##) to save battery where 5G is weak
- VOLTE/Wi Fi Calling
- Supported carriers: JIP, Airtel (India) | T-Mobile (USA) | EE (UK)
- Fix for unsupported carriers:

2. Performance Unleashed: Extreme Optimization

- CPU Throttling Fix
- Solution:
- Root required
- Install Franco Kernel Manager
- Set thermal limits to 42°C (vs stock 38°C)
- Underclock GPU to 675MHz (saves power, minimal FPS loss)

3. Display Calibration Pro Files

- Download Color Profiles (XDA Developers):
- SRGB .i c c: For accurate colors
- DCI-P3.icc: For vibrant media

4. Battery Replacement Guide

Official Service Cost:

- India: ₹2,500
- USA: $70 (via mail-in)
- Third-party Options:
- i Fixit Kit: $45 (with tools)
- Local Repair: ₹1,500 (riskier)

5. Audio Engineering Mode

- Hidden DAC Tuning:
- Dial *#899#
- Select Device Debugging > Audio
- Adjust:
- Headphone impedance: Set to 32Ω for most buds

- Channel balance: Fix L/R imbalance

6. Future-Proofing Strategies

- OnePlus 9RT Mobile Part Availability (2026 Forecast)
- Easy to find: Screens, batteries
- Rare: Camera modules, charging ports
- Stock up now: Buy OEM charging flex cable (~₹800)
- Software Lifespan Extenders
- Custom Kernel: Blu Spark improves efficiency
- Graphene OS Port: Expected late 2024 (Android 14)

7. Extreme Cooling Mods

- DIY Vapor Chamber Upgrade
- Disassemble back cover
- Apply Thermal Grizzly Car BONAUT Pad
- Add copper shim over SoC
- Result: 5°C lower temps during gaming
- Peltier Cooler Compatibility
- Works with:
- Black Shark Fun Cooler 2 Pro
- Red Magic Ice Dock
- Warning: Condensation risk!

8. Forensic-Level Camera Analysis

- G Cam Port Performance
- Best config:
- Version: LMC 8.4 R17
- Config File: "OnePlus9RT_BSG.xml"
- Key Gains:
- 28% better night shots
- Working Astrophotography mode
- Pro Video Settings
- 4K/60fps: Use Filmic Pro (bitrate: 100Mbps)
- Log Profile: Load HLG LUT in post

9. Black Market Watchlist

- Common Scams
- Fake 9RTs: Check IMEI (OnePlus support)
- Refurbished Tricks: Look for green tint in low brightness
- Battery Scams: OEM batteries have QR holograms