

Technical Specification: TitanPhone Z5

1. Overview

The TitanPhone Z5 is a next-generation smartphone that blends power, durability, and innovation. Featuring a high-refresh-rate display, a cutting-edge processor, and a versatile camera system, the TitanPhone Z5 is built to deliver exceptional performance in any scenario.

2. Technical Specifications

2.1 Design & Build

- Dimensions: 162.5 x 76.3 x 8.2 mm
- Weight: 210g
- Material: Titanium alloy frame, Ceramic back, Gorilla Glass Victus+ front
- Colors: Cosmic Grey, Ocean Blue, Solar Red
- Water & Dust Resistance: IP69 (waterproof up to 2m for 60 minutes, dustproof)

2.2 Display

- Type: 6.9-inch LTPO AMOLED
- Resolution: 3200 x 1440 pixels (QHD+)
- Refresh Rate: Adaptive 1Hz – 144Hz
- Brightness: 2000 nits peak brightness
- HDR Support: HDR10+, Dolby Vision
- Protection: Corning Gorilla Glass Victus+

2.3 Performance

- Chipset: TitanCore Z5 Pro Processor (3nm architecture)
- CPU: Octa-core (1x 3.5GHz Cortex-X4, 3x 3.0GHz Cortex-A720, 4x 2.3GHz Cortex-A520)
- GPU: TitanGraphics 960
- RAM: 16GB / 24GB LPDDR5X
- Storage: 512GB / 1TB UFS 4.0 (non-expandable)
- Operating System: TitanOS 4.0 (based on Android 15)

2.4 Camera System

Rear Cameras:

- Main: 108MP (f/1.5, OIS, PDAF, Laser Autofocus)
- Ultra-Wide: 50MP (f/2.2, 130° field of view)
- Telephoto: 16MP (f/2.4, 5x Optical Zoom, OIS)
- Periscope: 12MP (f/3.5, 15x Optical Zoom, Hybrid 100x Zoom)
- Video Recording: 8K at 60fps, 4K at 240fps, HDR10+, Cinematic Mode

Front Camera:

- Resolution: 48MP (f/2.0, AI-enhanced)
- Features: 4K recording at 120fps, Auto-HDR, Night Mode

2.5 Battery & Charging

- Battery Capacity: 6,000mAh
- Charging:
 - 120W wired fast charging (0-100% in 25 minutes)
 - 80W wireless charging
 - 15W reverse wireless charging
- Battery Life: Up to 60 hours (mixed usage)

2.6 Connectivity

- SIM: Dual SIM (Nano-SIM + eSIM)
- 5G: Yes (Sub-6GHz & mmWave support)
- Wi-Fi: Wi-Fi 7 (802.11be), Tri-band, MIMO
- Bluetooth: v5.4, LE Audio, aptX Lossless
- GPS: GPS, GLONASS, Galileo, BDS, QZSS
- NFC: Yes
- Ports: USB Type-C 4.0, No 3.5mm headphone jack

2.7 Security & Sensors

- Fingerprint Scanner: Ultrasonic under-display
- Face Unlock: 3D facial recognition
- Sensors:
 - Accelerometer
 - Gyroscope
 - Proximity sensor
 - Compass
 - Barometer
 - Ambient Light Sensor

- IR Blaster
- UWB (Ultra-Wideband)
- AI Gesture Control

2.8 Audio & Multimedia

- **Speakers:** Stereo speakers, Dolby Atmos, Hi-Res Audio certified
- **Microphones:** Quad-microphone setup with AI noise cancellation
- **Audio Codecs:** AAC, aptX HD, LDAC, LHDC, Spatial Audio

2.9 Software Features

- **AI Enhancements:**
 - TitanAI Assistant
 - AI-powered photography enhancements
 - Smart battery optimization
- **Customization:**
 - Always-on Display with interactive widgets
 - Dynamic Themes with AI-driven adjustments
- **Gaming Features:**
 - 480Hz touch sampling rate
 - Advanced liquid cooling system
 - AI-powered FPS booster

2.10 Accessories & Compatibility

- **Included in Box:**
 - TitanPhone Z5
 - 120W Fast Charger
 - USB-C to USB-C Cable
 - SIM Ejector Tool
 - Quick Start Guide
- **Compatible Accessories:**
 - Titan Stylus Pro
 - TitanPhone Z5 Smart Case
 - TitanBuds Ultra Wireless Earbuds

3. Conclusion

The TitanPhone Z5 is the ultimate smartphone for users who demand power, efficiency, and innovation. Designed to perform at the highest levels, it excels in photography, gaming, and productivity, making it a true flagship device.

Release Date: Q4 2024

Starting Price: \$1,199 (base model)