

MediaTek Dimensity 9000

GET READY FOR
SOMETHING
INCREDIBLE
IN YOUR NEXT SMARTPHONE



The World's 1st TSMC 4nm-class Smartphone Chip

The MediaTek Dimensity 9000 leads the industry by embracing leading-edge TSMC N4 (4nm-class) production – the most advanced and power efficient chip-making process ever.



Cortex-X2 over 3GHz

Using the latest Armv9 architecture CPUs delivers unparalleled performance.

- Ultra-Core - 1x Arm Cortex-X2 at 3.05GHz
- Performance Cores - 3x Arm Cortex-A710 up to 2.85GHz
- Efficiency Cores - 4x Arm Cortex-A510
- Big caches - 8MB L3 cache + 6MB system cache
- LPDDR5X up to 7500Mbps – 20% more power efficient than LPDDR5



MediaTek Imagiq 790

A new 18-bit HDR-ISP design gives the first opportunity to capture HDR video on three cameras simultaneously.

- Most Powerful 9Gpixel/s ISP
- World's 1st simultaneous triple camera 18-bit HDR video recording (three cameras recording with three exposures per frame)
- World's 1st 320MP camera support for smartphones



MediaTek APU 590

Specifically designed to achieve maximum effective performance in AI-multimedia, -gaming, -camera, and social video experiences.

- Up to 4X power efficiency upgrade vs last generation
- End-to-end upgrade maximizes efficiency at every pipeline step



MediaTek HyperEngine 5.0

Exclusive gaming technologies that ensure users enjoy longer lasting, amped visuals with smoother gameplay.

- World's 1st Arm Mali-G710 MC10 graphics processor
- AI-VRS – first AI-enhanced variable rate shading technology
- Industry's first raytracing SDK using Vulkan for Android



MediaTek MiraVision 790

Technologies that intelligently adjust a wide range of display factors to showcase the best visual enhancements in every app, media and environment.

- 144Hz WQHD+ or 180Hz FullHD+ display
- MediaTek Intelligent Display Sync 2.0
- Wi-Fi Display up to 4K60 HDR10+



Leading 3GPP Release-16 5G Smartphone Modem

The Dimensity 9000 integrates the only 5G smartphone modem with 3GPP Release-16 standard technology into the chip.

- 3CC Carrier Aggregation (300MHz)
- 7Gbps downlink – incredible peak performance exclusively from sub-6GHz
- World's 1st R16 UL Enhancement - R16 UL Tx Switching for both SUL and NR UL-CA based connections
- New generation MediaTek 5G UltraSave 2.0 power-saving enhancement suite
- Dual SIM Dual 4G/5G Active (DR-DSDA)



Latest Connectivity & Wireless Audio

Featuring the latest Wi-Fi, Bluetooth and GNSS technologies.

- Wi-Fi 6E 2x2 (BW160) up to 2X better performance efficiency than previous generation and support for the latest 6GHz connectivity
- World's 1st Bluetooth 5.3 support in smartphones
- Bluetooth LE Audio technology with Dual-Link True Wireless Stereo Audio
- New Beidou III-B1C GNSS support



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SPECIFICATIONS

Process	TSMC N4 (4nm-class)
CPU	1x Arm Cortex-X2 at 3.05GHz 3x Arm Cortex-A710 up to 2.85GHz 4x Arm Cortex-A510
GPU MediaTek HyperEngine 5.0	Arm Mali-G710 GPU MC10
APU	MediaTek APU 590
Camera MediaTek Imagiq 790	18-bit HDR-ISP fusion up to 9Gpixel/s Up to 320MP Primary Camera 3-exposure HDR Videography
Display MediaTek MiraVision 790	144Hz WQHD+ / 180Hz FullHD+ MediaTek Intelligent Display Sync 2.0
Audio	Bluetooth LE Audio-ready technology with Dual-Link True Wireless Stereo Audio
Connectivity	Wi-Fi 6E 2x2 (BW160) and Bluetooth 5.3 Wi-Fi/Bluetooth hybrid coexistence design
Memory	LPDDR5X up to 7500Mbps
Modem	3GPP Release 16 5G modem 5G NR 3CC Carrier Aggregation (300MHz) up to 7Gbps MediaTek UltraSave 2.0
Customization	Dimensity 5G Open Resource Architecture ready