

# 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



## MediaTek Dimensity 9000

### SPECIFICATIONS

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