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Product brief
Create infinite possibilities

Exynos 2200

Highlights

The first mobile processor supporting hardware-accelerated ray tracing
Faster performance and stronger security
Enhanced visual experiences and professional-level quality images

Playtime is over

You can now get console quality graphics on mobile with the Exynos 2200 mobile processor. Samsung Xclipse GPU will usher in a new era, completely changing the way we experience mobile gaming. The Xclipse supports hardware-based ray tracing acceleration, and can show more powerful light effects – like the reflection and refraction by various objects – in 3D graphic games. Playtime is well and truly over.

Console-quality gaming now on mobile

The Xclipse is the first mobile GPU based on AMD RDNA™ 2 architecture, and offers advanced graphic features such as hardware-accelerated ray tracing (RT) and variable rate shading (VRS) that were previously only available on PCs, laptops and consoles.

Faster performance and stronger security

The Exynos 2200 is one of the first to integrate Arm®'s latest Armv9 CPU cores, which offer a substantial improvement over Armv8 in security and performance. The NPU's performance has doubled compared to its predecessor, allowing more calculations in parallel and enhancing the AI performance. The NPU now offers much higher precision with FP16 (16-bit floating point) support in addition to power efficient INT8 (8-bit integer) and INT16.

Making the network faster

The Exynos 2200 integrates a fast 3GPP Rel.16 5G modem, supporting both sub-6GHz and mmWave spectrum bands. With E-UTRAN New Radio – Dual Connectivity (EN-DC), which utilizes both 4G LTE and 5G NR signals, the modem can boost the speed up to 10Gbps.

Enhanced visual experiences and professional-quality images

The Exynos 2200's image signal processor (ISP) architecture supports ultra-high resolution of up to 200MP. At 30 frames-per-second (fps), the ISP supports up to 108MP in single camera mode, and 64MP+36MP in dual camera mode. It can connect up to seven image sensors and drive four sensors concurrently for advanced multi-camera setups. For video recording, the ISP supports up to 4K HDR or 8K resolution.

Specifications

	Exynos 2200
CPU	Cortex®-X2 x 1 + Cortex®-A710 x 3 + Cortex®-A510 x 4
GPU	XClipse 920 GPU
AI	AI Engine with dual-core NPU and DSP
Modem	5G NR Sub-6GHz 5.1Gbps (DL) / 2.55 Gbps (UL) 5G NR mmWave 7.35Gbps (DL) / 3.67 Gbps (UL) LTE Cat.24 8CA 3Gbps (DL) / Cat.22 4CA 422Mbps (UL)
Camera	Up to 200MP in single camera mode, Single-camera 108MP @30fps, Dual-camera 64MP+32MP @30fps
Video	8K 60fps encoding, 30fps encoding and decoding
Display	4K/WQUXGA @120Hz, QHD+@144Hz
Memory	LPDDR5
Storage	UFS v3.1
Process	4nm

* All product specifications reflect internal test results and are subject to variations by user's system configuration. Actual performance may vary depending on use conditions and environment.
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