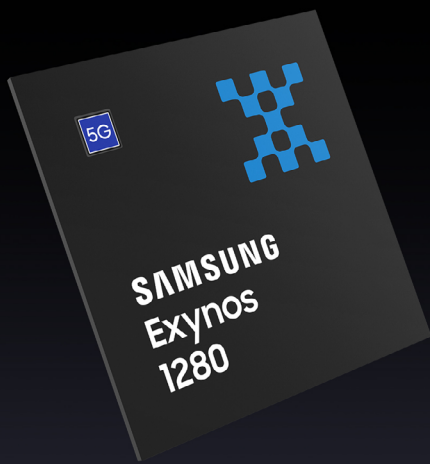SAMSUNG

Product brief
Create infinite possibilities

Exynos 1280

Highlights

A mobile processor ready for 5G and AI
Advanced ISP and MFC for rich multimedia experience
Powerful octa-core CPU and GPU

5G for all

Exynos 1280 is a mobile processor based on a 64-bit RISC processor. It contains a 5G modem, which is compliant with two types of 5G network (Sub-6GHz and mmWave), as well as all legacy networks. It is built using an advanced 5nm EUV process for high power efficiency.

All-in-one processor for 5G

The Exynos 1280 embedded modem supports both sub-6GHz (Frequency Range 1, FR1) and mmWave (FR2) at a download speed of up to 2.55Gbps. It delivers fast 5G connection to mid-range devices, and is compatible with 2G GSM/CDMA, 3G WCDMA, TD-SCDMA, HSPA and 4G LTE for worldwide coverage and reliability. It also integrates 802.11ac and Bluetooth® 5.2 for connecting to wireless networks and nearby devices.

High-resolution ISP and multimedia MFC

The advanced image signal processor (ISP) supports a maximum resolution of up to 108-megapixels (MP), and can connect up to three input streams concurrently for full triple camera support. The multi-format codec (MFC) offers ultra-sharp video recording and smoother playback through 4K UHD at 30 frames per second (fps) encoding and decoding.

Powerful octa-core CPU and GPU

This powerful processor is equipped with two Arm® Cortex®-A78 cores running at up to 2.4GHz, and six power-efficient Cortex®-A55 cores enabling fast app launches, multi-tasking, and smooth transitions between apps. The integrated Arm® Mali™-G68 GPU delivers rich graphical performances for more immersive animated 3D interfaces and mobile games. In addition, the display system reduces visual latency by supporting fast refresh rates of up to 120Hz in Full HD+ resolution.

Specifications

	Exynos 1280
CPU	Cortex®-A78 x 2 + Cortex®-A55 x 6
GPU	Mali™-G68
AI	AI Engine with NPU
Modem	5G NR Sub-6GHz 2.55Gbps (DL) / 1.28Gbps (UL) 5G NR mmWave 1.84Gbps (DL) / 0.92Gbps (UL) LTE Cat.18 6CC 1.2Gbps (DL) / Cat.18 2CC 200Mbps (UL)
Connectivity	WiFi 802.11ac MIMO with Dual-band (2.4/5G), Bluetooth® 5.2, FM Radio Rx
GNSS	Quad-constellation multi-signal for L1 and L5 GNSS
Camera	Up to 108MP in single camera mode, Single-camera 32MP @30fps
Video	4K 30fps encoding and decoding
Display	Full HD+@120Hz
Memory	LPDDR4x
Storage	UFS v2.2
Process	5nm

* 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.

* All product images shown are for illustration purposes only and may not be an exact representation of the product.

* Samsung reserves the right to change product images and specifications at any time without notice.

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