MediaTek helio P10



A premium performance platform for super-slim device designs from our powerful MediaTek helio family

MediaTek helio P10 is a high-performance, high-value SoC focused on the growing demand for slim form-factor smartphones that provide premium, flagship features. As the world's first product to use TSMC's 28nm HPC+ process, the MediaTek helio P10 allows for reduced processor power consumption, saving up to 30% energy compared to existing smartphone SoCs manufactured using the conventional 28nm process.



21MP single camera/16MP + 8MP dual camera with the world's first TrueBright ISP engine for greater sensor light capture, enhanced color resolution, and less than 200ms shot-to shot delay.



Third generation integrated 4G World-Mode modem with LTE Cat-6, supporting 2x20 carrier aggregation with 300/50Mbps data speeds for cutting edge connectivity and transfer rates.



Up to 2 GHz, True Octa-core 64-bit Cortex-A53 CPU for fastest performance in the mainstream segment.



Powerful dual-core 64-bit Mali-T860 graphics core clocked at up to 700MHz, delivering an uncompromised user experience.



Graphics

MediaTek helio P10

Process	28nm HPC+
CPU	8x Cortex-A53, up to 2.0GHz
Memory	1x LPDDR3 933MHz up to 4GB eMMC 5.1
Camera	21MP@24fps 16MP@30fps w/ ZSD Dual ISP w/improved 3A/denoise/ demosaic/sharpness
Video Decode	1080p 30fps H.264/265
Video Encode	1080p 30fps H.264
Graphics	ARM Mali-T860 MP2 up to 700MHz
Display	FHD 1920x1080 w/ 12 Blending Layers
Modem	LTE FDD/TDD R11 Cat-6 with 2x20 CA (300/ 50Mbps), DC-HSPA+, TD-S CDMA, EDGE CDMA2000 1x/EVDO Rev. A (3.1/1.8Mbps, SRLTE) LTE/GPS Co-clock Supported
RF	Single RF for LTE 2x20 CA/WCDMA/TD/EDGE/ C2K 14/14 Primary/ Diversity RX Ports
Connectivity	Wi-Fi abgn w/ throughput up to 90Mbps GPS / Glonass/Beidou TTFF & Drift, BT/FM

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(continued)



Full HD display at 60FPS with MediaTek's suite of MiraVision 2.0 display technologies, including UltraDimming, BluLight Defender, and Adaptive Picture Quality.



Hi-fidelity, hi-clarity audio with 110dB SNR & -95dB THD to meet consumer demand for superior audio performance.

CEMIUS DEVICES



- Android Marshmallow OS
- 13MP rear-facing, 5MP front-facing cameras
- 1080p HD video recording
- MediaTek helio P10 1.8GHz Octa-Core processor
- 3,000 removable mAh battery
- 16GB memory (expandable to 128GB with microSD)
- 5.7" HD display
- Stylus for note taking and drawing

Figure 1. MediaTek helio P10 System Architecture

Octa-core 64-bit CPU MiraVision™ technology built in for up to 2.0GHz best viewing experience under all lighting conditions CorePilot™ Heterogeneous computing scheduling 21MP@24fps w / ZSD • dual camera algorithm to achieve extreme 16MP @ 30fps + 8MP performance & power efficiency Multimedia Dual ISP with RWWB sensor support ARM Mali-T860 MP2 CorePilot up to 700MHz Full-HD 1920x1080 (60fps) w/12 blending layers ARM Mali GPU Integrated connectivity solution for broad array & high speed LTE FDD/TDD R11 Cat-6 with 2x20 CA. Display connectivity experience DC-HSPA+, TD-S CDMA, EDGE CDMA2000 Connectivity 1x/EVDO Rev. A (SRLTE) Modem *Unit sizes shown are for illustrative purposes only.

Product brief data based on MediaTek helio P10 MT6755. Features and specifications may vary for other chip variants (MT6755M).

