

Mobile Processors Reach 10 Cores

Written by Marco Attard
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MediaTek announces an industry first with the Helio X20, a system-on-a-chip (SoC) for smartphone and tablet use packing 10 cores on a single die, all connected with the so-called MediaTek Coherent System Interconnect (MCSI).



The 10 cores are arranged in 3 clusters-- two Cortex-A725 cores clocked at 2.5GHz, four Cortex-A53s clocked at 2GHz and four Cortex-A53s clocked at 1.4GHz. The arrangement is compared to a car with 3 gears allowing for fuel efficiency across different terrains, since the low-power cores can handle non-demanding tasks while the 2.5GHz cluster takes care of bigger jobs.

The company also says the grouping allows for power savings of up to 30% off a standard ARM "big.little" implementation.

Also included in the Helio X20 is an integrated Cortex-M4 hub (handles low-power sensors and MP3 playback), dual 12-bit camera processors, improved graphics performance and Carrier Aggregation for Cat 6 LTE.

Will MediaTek's latest manage to effectively juggle all 10 cores? We will know by Q1 2016, when the first devices carrying the SoC start hitting the market.

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