

MediaTek Helio G80 MT6769V/CU datasheet

General Characteristics:	
Designer	MediaTek
Type:	Helio G80 MT6769V/CU
Year Released:	2020
Function	Multi-core Application Processor with Modem
Architecture:	
Width of Machine Word	64 bit
Supported Instruction Set(s):	ARMv8.3 (A32, A64)
Number of processor core(s):	8
Type of processor core(s)	2x ARM Cortex-A75 + 6x ARM Cortex-A55 MPcore
Buses:	
Memory Interface(s):	LPDDR4x SDRAM
Address Bus Width	32 bit
Max. Clock Frequency of Memory IF	1800 MHz
Data Bus Width	16 bit
Number of data bus channels:	2 ch
Max. Data Rate	14.4 Gbyte/s
Non-volatile Memory Interface	eMMC 5.1 , UFS 2.1
Clock Frequencies:	
Recommended Maximum Clock Frequency:	2000 MHz max.
Cache Memories:	
Total L2 Cache	320 Kbyte L2
Total L3 Cache:	1024 Kbyte L3
Technology and Packaging:	
Feature Size	12 nm
Semiconductor Technology:	FinFET
Fab	TSMC
Graphical Subsystem:	
Embedded GPU	ARM Mali-G52 2EEMC2 GPU
Number of GPU cores:	2-core GPU
GPU Clock:	950 MHz GPU
Supported Cellular Data Links	CSD 9.6 kbps , GPRS (Class unspecified) , EDGE (Class unspecified) , UMTS 384 kbps (W-CDMA) , HSPA (Cat. 5) , HSPA 1.46 Mbps (Cat. 2) , HSPA 2.0 Mbps (Cat. 5) , HSPA 5.76 Mbps (Cat. 6) , HSPA 11.5 Mbps (Cat. 7) , HSDPA (Cat. unspecified) , HSDPA 1.8 Mbps (Cat. 4) , HSDPA 3.6 Mbps (Cat. 6) , HSDPA 7.2 Mbps (Cat. 8) , HSDPA 10.2 Mbps (Cat. 9) , HSDPA 14.4 Mbps (Cat. 10) , HSPA+ 21.1 Mbps (Cat. 18) , HSPA+ 42.2 Mbps (Cat. 20) , DC-HSDPA 42.2 Mbps (Cat. 24) , CDMA2000 1xRTT (IS-2000) , CDMA2000 1xEV-DO Rel. 0 , CDMA2000 1xEV-DO Revision A , TD-SCDMA , LTE (Cat. unspecified) , LTE 100 Mbps / 50 Mbps (Cat. 3) , LTE 150 Mbps / 50 Mbps (Cat. 4) , LTE 300 Mbps / 50 Mbps (Cat. 6) , LTE 300 Mbps / 100 Mbps (Cat. 7) , LTE 400 Mbps / 150 Mbps (LTE Cat.
Communication Interfaces:	
Supported USB Specification:	USB 2.0
Bluetooth support	Bluetooth 5.0
Wireless LAN support	No
Supported Audio/Video Interface:	No
atellite Navigation:	
Supported GPS protocol(s):	Yes
Supported Galileo service(s)	Yes
Supported GLONASS protocol(s)	Yes
Supported BeiDou system (BDS)	B1I BeiDou receiver
Additional Information:	
Special Features:	
2x ARM Cortex-A75 (up to 2 GHz) + 6x ARM Cortex-A55 (up to 1.8 GHz) Harvard Superscalar processor core, HMP, 2520x1080 display support, dual-SIM support, 1080p 60 fps video encode, 1080p 60 fps video decode, FM radio support, 48 MP / 16 + 16 MP camera support, CorePilot, NeuroPilot, Pump Express, Tiny Sensor Hub, Integrated VoW, HyperEngine Game Technology, OpenCL 2.0, Vulkan 1.0, DirectX 12. For smartphone devices.	