

Nord Technology

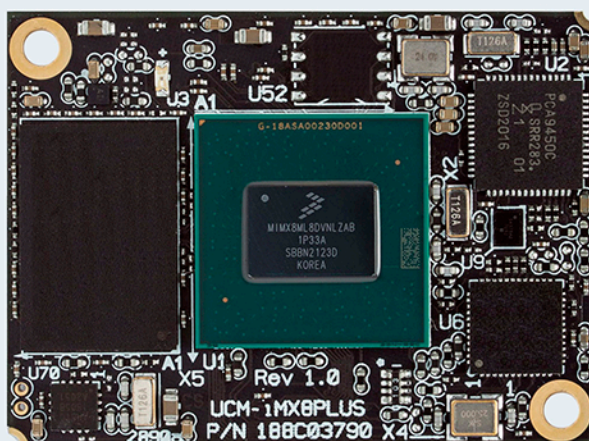
Reseller of Compulab hardware in Denmark

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UCM-iMX8M-Plus System on Module



UCM-iMX8M-Plus - NXP i.MX8M Plus System-on-Module



- "Option" column specifies the configuration code required to have the particular feature.
- "+" means that the feature is always available

CPU Core		
CPU	NXP i.MX8M Plus Quad, quad-core ARM Cortex-A53, 1.8GHz	C1800QM
	NXP i.MX8M Plus Quad, quad-core ARM Cortex-A53, 1.6GHz, industrial temp. grade	C1600QM
	NXP i.MX8M Plus QuadLite, quad-core ARM Cortex-A53, 1.8GHz	C1800Q
Video Decode	1080p60 HEVC/H.265, AVC/H.264, VP9, VP8	C1800QM or C1600QM
Video Encode	1080p60 HEVC/H.265, AVC/H.264	
GPU	GC7000UL GPU OpenGL ES 3.1/3.0, Vulkan, Open CL 1.2 FP, OpenVG 1.1	+
NPU	AI/ML Neural Processing Unit, up to 2.3 TOPS	C1800QM or C1600QM
DSP	Tensilica® HiFi 4 DSP	
Real-Time Co-processor	ARM Cortex-M7, 800Mhz	+
Memory and Storage		
RAM	1GB – 8GB, LPDDR4	D
Storage	eMMC flash, 16GB - 64GB	N
Display, Camera and Audio		
Display	HDMI 2.0a, up to 1080p60	+
	MIPI-DSI, 4 data lanes, up to 1080p60	+
	LVDS, 4 lanes, up to 1366x768 p60	+
Touchscreen	Capacitive touch-screen support through SPI and I2C interfaces	+
Camera	2x MIPI-CSI, 4 data lanes	+
Digital Audio	Up-to 2x I2S / SAI	+
	S/PDIF input/output	+
	eARC	+
Network		
Gigabit Ethernet	Gigabit Ethernet port (MAC+PHY)	E
RGMII	Primary RGMII	not E
	Secondary RGMII	+
I/O		
PCI Express	PCIe x1 Gen. 3.0	+
USB	2x USB3.0 dual-role ports	+
UART	Up to 4x UART	+
CAN bus	Up-to 2x CAN	+
SD/SDIO	Up to 2x SD/SDIO	+
SPI	Up to 2x SPI	+
I2C	Up to 5x I2C	+
PWM	Up to 4x general purpose PWM signals	+
GPIO	Up to 75x GPIO (multifunctional signals shared with other functions)	+
System Logic and Debug		
RTC	Real time clock, powered by external battery	+
JTAG	JTAG debug interface	+
Electrical Specifications		
Supply Voltage	3.45V to 4.4V	
Digital I/O voltage	3.3V	
Power consumption	0.7 - 5 W, depending on system load and board configuration	
	< 10mA in suspend mode	
Mechanical Specifications		
Dimensions	28 x 38 x 5 mm	
Weight	7 gram	
Connectors	2 x 100 pin, 0.4mm pitch	
Environmental and Reliability		
MTTF	> 200,000 hours	
Operation temperature (case)	Commercial: 0° to 70° C	
	Extended: -20° to 70° C - only with C1600QM	
	Industrial: -40° to 85° C - only with C1600QM	
Storage temperature	-40° to 85° C	
Relative humidity	10% to 90% (operation)	
	05% to 95% (storage)	
Shock	50G / 20 ms	
Vibration	20G / 0 - 600 Hz	