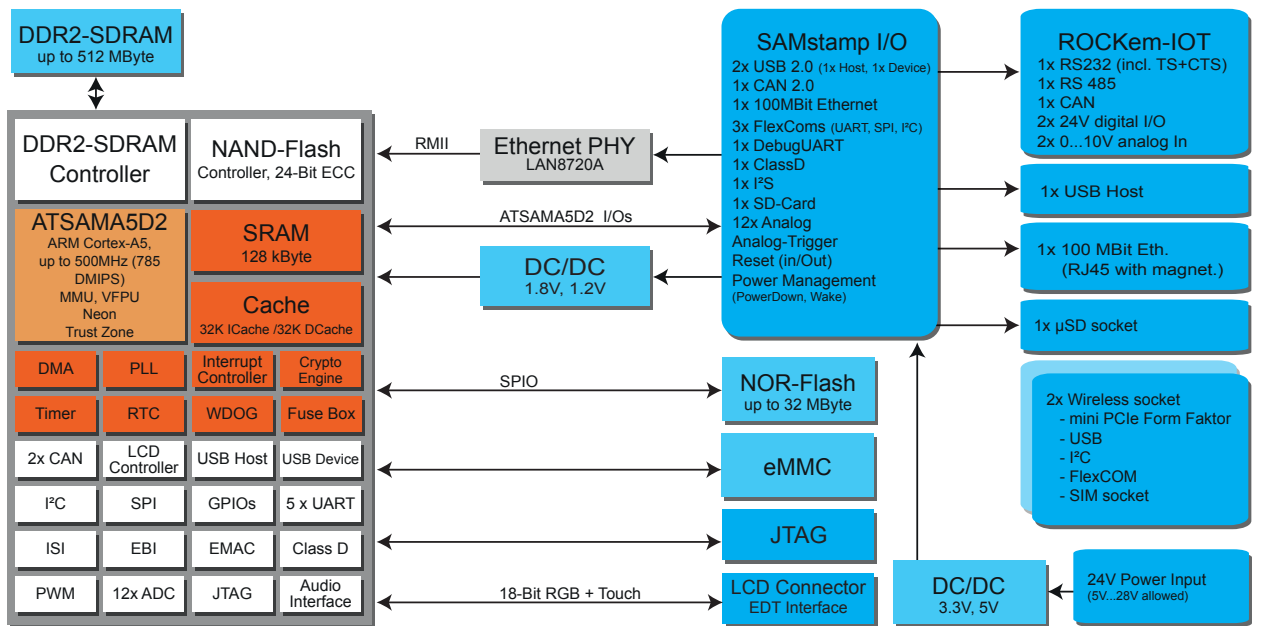
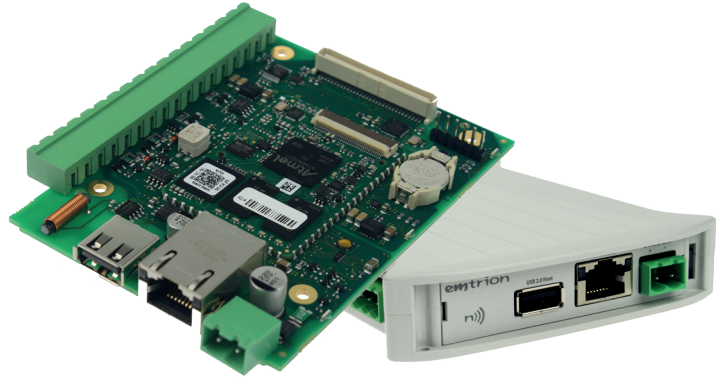


**emSBC-Helium-IoT**  
**IoT Single Board Computer**  
**based on ATSAM5D2**





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## emSBC-Helium-IoT

	emSBC-Helium-IoT	Helium-IoT
		
Operating system	Linux Debian	
CANopen Master/Slave	on request	
EtherNet/IP	on request	
EtherCAT	on request	
PROFINET CCB RT1	on request	
Webinterface	on request	
CPU manufacturer	MICROCHIP SAMA5D2	
CPU architecture	ARM Cortex-A5	
CPU performance	500 MHz - 785 DMIPS	
Co-Processor	ARM Neon™, VFPU	
Security	Crypto, TRNG, tamper, on-the-fly DDR/QSPI encryption, secure boot, environmental monitors, Trust Zone	
RAM	up to 512 MByte DDR3 SDRAM	
Flash	up to 32 MByte NOR-Flash, up to 16GB eMMC	
Ethernet	1x 100MBit	
USB 2.0	1 x Host	
CAN	1 x 2.0 A/B (opt. CAN-FD)	
UART: RS232 / RS485	1/1	
GPIO (24V)	2 x	
Analog Input 0...10V	2 x	
DebugUART	1 x	
LED	green / red	
µSD-Card	1 x	
RTC (battery buffered)	yes	
casing	optional	
Extension Connector	2 x USB 2.0, 2 x I2C 2 x FlexCOM, 2 x GPIO 3V3, 24V Supply	
Wireless Modules	optional (2 x miniPCIe Socket)	
Size in mm	112 x 35 x 15	120 x 100 x 22,5
max. power consumption	5...28V / 0,5A @ 24V	
Operating temperature	0...+70°C, opt. -40...+85°C	
Customer specific solutions	yes	
Mounting	-	t-rail
CE Marking	-	optional
Emission	-	EN 55011/CISPR11; Class A on request
EMC	-	EN 61000-6-2 on request
Signaling	1 x Duo LED	1 x Duo LED; 2 x Tri Col. LED on request

Subject to change without notice.  
Rev1: 30/2019