

Main Specifications

Product group name		M3H group (2)
CPU core		ARM® Cortex®-M3 – memory protection unit (MPU)
Maximum operating frequency		120MHz
Internal oscillator	Oscillation frequency	10MHz (+/-1%)
Internal memory	Code flash memory	1024KB ^[1] (Program/erase cycles: up to 100,000 times) Area swap method firmware rotation function with two separate code flash areas of 512KB each ^[3]
	Data flash memory	32KB (Program/erase cycles: up to 100,000 times)
	RAM	128KB and Backup RAM 2KB, with parity
I/O port		56 to 134
External interrupt		12 to 23 factors
DMA Controller (DMAC)		DMA requests: 2 units, 54 to 64 factors, internal/external triggers
Timer function	32-bit Timer Event Counter (T32A)	8 channels (16 channels if used as 16-bit timer)
	Real Time Clock (RTC)	1 channel
Communication function	UART	7 to 8 channels
	I²C interface (I²C)	2 to 4 channels
	TSPI	1 to 5 channels
Analog function	12-bit AD Converter	12 to 21 channels inputs
	8-bit DA Converter	2 channels
	Comparator	1 channel
Motor control circuits	Advanced Programmable Motor Control Circuit (A-PMD)	1 channel
	Advanced Encoder Input Circuit (32-bit) (A-ENC32)	1 channel
Other peripherals circuits	Remote Control Signal Preprocessor (RMC)	1 channel
	CRC Calculation Circuit (CRC)	1 channel, CRC32, CRC16
	LCD Display Controller (DLCD)	Non-Bias Drive: 40 segments × 4 commons (max) ^[4]
System function	Watchdog Timer (SIWDT)	1 channel
	Voltage Detection Circuit (LVD)	1 channel
	Oscillation Frequency Detector (OFD)	1 channel
On Chip Debug function		JTAG / SWD
Operating voltage		2.7 to 5.5V, single voltage supply
Package / Pin		LQFP144 (20mm x 20mm, 0.5mm pitch) LQFP128 (14mm x 14mm, 0.4mm pitch) LQFP128 (14mm x 20mm, 0.5mm pitch) LQFP100 (14mm x 14mm, 0.5mm pitch) QFP100 (14mm x 20mm, 0.65mm pitch) LQFP80 (12mm x 12mm, 0.5mm pitch) LQFP64 (10mm x 10mm, 0.5mm pitch)