

Product group		M4H group		
Part number		TMPM4H4FYUG	TMPM4H2FYDUG	TMPM4H1FYUG
CPU core		Arm® Cortex®-M4 core with FPU - Memory protection unit (MPU)		
Maximum operating frequency		120MHz		
Internal oscillator	Oscillation frequency	10MHz (±1%)		
Internal memory	Flash (code)	256KB (Program/erase cycles: up to 100,000 times)		
	RAM	18KB, with parity		
I/O port		51 pins	37 pins	33 pins
External interrupt		11 factors, 16 pins	10 factors, 12 pins	9 factors, 11 pins
DMA controller (DMAC)		32 channels	27 channels	
Timer function	32-bit timer event counter (T32A)	6 channels (12 channels if used as 16-bit timer)		
Communication function	UART	4 channels	3 channels	3 channels
	I ² C interface/I ² C interface version A (I2C/EI2C)	1/1 channel		
	TSPI	4 channels	2 channels	
Analog function	12-bit AD converter (ADC)	12 inputs in 1 unit	10 inputs in 1 unit	9 inputs in 1 unit
Motor control circuit	Advanced programmable motor control circuit (A-PMD)	1 channel		
Other	CRC calculation circuit (CRC)	1 channel CRC32, CRC16		
System function	Clock selective watchdog timer (SIWDT)	1 channel		
	Voltage detection circuit (LVD)	1 channel		
	Oscillation frequency detector (OFD)	1 channel		
Debug interface		JTAG/SW TRACE(4bits) NBDIF	JTAG/SW	
Operating voltage		2.7V to 5.5V, single voltage supply		
Package/Pin		LQFP64 (10mm×10mm, 0.5mm pitch)	LQFP48 (7mm×7mm, 0.5mm pitch)	LQFP44 (10mm×10mm, 0.8mm pitch)