

Product group		M4V Group			
Part number		TMPM4V4FW	TMPM4V2FWD	TMPM4V2FW	TMPM4V1FW
		UG	UG	QG	UG
CPU core		Arm® Cortex®-M4 core with FPU - Memory protection unit (MPU)			
Maximum operating frequency		80MHz			
Internal oscillator	Oscillation frequency	10MHz (±1%)			
Internal memory	Code flash (Program/erase cycles: up to 100,000 times)	128KB			
	Data flash	64KB			
	RAM	32KB, with parity			
I/O port		51 pins	35 pins		31 pins
External interrupt		21 factors, 21 pins	13 factors, 13 pins		9 factors, 9pins
DMA controller (DMAC)		31 channels	29 channels		27 channels
Timer function	32-bit timer event counter (T32A)	5 channels (10 channels if used as 16-bit timer)			
Communication function	UART	6 channels	5 channels		4 channels
	I²C interface version A (EI2C)	2 channels			1 channel

	TSPI	3 channels	2 channels		
	SMIF	1channel			
Analog function	12-bit AD converter (ADC)	14 inputs in 1 unit	9 inputs in 1 unit		8 inputs in 1 unit
Motor control circuit	Advanced programmable motor control circuit 2 (A-PMD2)	1 channel			
Other	CRC calculation circuit (CRC)	1 channel (CRC32, CRC16)			
System function	Watchdog timer (SIWDT)	1channel			
	Voltage detection circuit (LVD)	1channel			
	Oscillation frequency detector (OFD)	1channel			
Security function		Chip Protection (CPRO), Secure Access Memory (SAM), Non-Releasable Flash Protection (NRFP)			
Debug interface		JTAG / SW TRACE (2bits)	JTAG/SW		
Operating voltage		2.7V to 5.5V, single voltage supply			
Package/Pin		LQFP64	LQFP48	VQFN48	LQFP44

	(10mm×10mm, 0.5mm pitch)	(7mm×7mm, 0.5mm pitch)	(7mm×7mm, 0.5mm pitch)	(10mm×10mm, 0.8mm pitch)
--	-----------------------------	---------------------------	---------------------------	-----------------------------