

Specifications

Product group		M4G group
CPU core		Arm Cortex-M4 – memory protection unit (MPU) – floating-point unit (FPU)
Max operation frequency		200MHz
Internal oscillator		10MHz (+/-1%)
Internal memory	Flash (code)	512KB/1024KB/1536KB/2048KB (rewritable up to 100,000 times)
	Flash (data)	32KB (rewritable up to 100,000 times)
	RAM	192KB/256KB and Backup RAM 2KB
I/O port		91 to 155
External interrupt		12 to 16
External bus interface		8/16bit width (separate/multiplexed bus)
DMA controller (DMAC)		Multi-function DMAC 1 unit High-speed DMAC 2 units
Timer function	T32A	32-bit timer: 16 (can be used as 16-bit timer: 32)
	LTTMR	Long Term Timer: 1 channel
	RTC	Real Time Clock: 1 channel
Communication function	UART	Asynchronous Serial Communication: 3 to 6 channels
	FUART	Full Universal Asynchronous Receiver Transmitter: 1 to 2 channels
	I ² C	3 to 5 channels
	TSPI	Serial Peripheral Interface: 5 to 9 channels
	TSSI	Synchronous serial Interface: 1 to 2 channels
	SMIF	Serial Memory Interface: 1 channel
Analog function	CEC	1 channel
	12-bit AD converter	16 to 24 channel input
Other peripherals	8-bit Digital to Analog converter	2 channels
	Motor control (A-PMD)	1 channel
	RMC	Remote Control Signal Preprocessor: 1 to 2 channels
	ISD	Interval Sensor detection Circuit: 1 to 3 units
	I ² S	2 channels
System function	FIR	FIR Calculation circuit: 1 channel
	WDT	1 channel
	LVD	Voltage Detection Circuit: 1 channel
On-chip debug function		Oscillation Frequency Detector: 1 channel
Operation voltage		Serial Wire /JTAG
Package / Pin		2.7 to 3.6V, single voltage supply
		LQFP176 (20mm x 20mm, 0.4mm pitch) VFPGA177 (13mm x 13mm, 0.8mm pitch) LQFP144 (20mm x 20mm, 0.5mm pitch) VFPGA145 (12mm x 12mm, 0.8mm pitch) LQFP100 (14mm x 14mm, 0.5mm pitch)