Low-Power Mode Supply Currents (Into V_{CC}) Excluding External Current

over recommended ranges of supply voltage and operating free-air temperature (unless otherwise noted)(1) (2)

PARAMETER		V_{CC}	PMMCOREVx	-40°C		25°C		60°C		85°C		UNIT
				TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
$I_{LPM0,1MHz}$	Low-power mode 0(3)(4)	2.2 V	0	73		77	85	80		85	97	µA
		3.0 V	3	79		83	92	88		95	105	
I_{LPM2}	Low-power mode 2(5)(4)	2.2 V	0	6.5		6.5	12	10		11	17	µA
		3.0 V	3	7.0		7.0	13	11		12	18	
$I_{LPM3,XT1LF}$	Low-power mode 3, crystal mode(6)(4)	2.2 V	0	1.60		1.90		2.6		5.6		µA
			1	1.65		2.00		2.7		5.9		
			2	1.75		2.15		2.9		6.1		
		3.0 V	0	1.8		2.1	2.9	2.8		5.8	8.3	
			1	1.9		2.3		2.9		6.1		
			2	2.0		2.4		3.0		6.3		
			3	2.0		2.5	3.9	3.1		6.4	9.3	
$I_{LPM3,VLO}$	Low-power mode 3, VLO mode(7)(4)	3.0 V	0	1.1		1.4	2.7	1.9		4.9	7.4	µA
			1	1.1		1.4		2.0		5.2		
			2	1.2		1.5		2.1		5.3		
			3	1.3		1.6	3.0	2.2		5.4	8.5	
I_{LPM4}	Low-power mode 4(8)(4)	3.0 V	0	0.9		1.1	1.5	1.8		4.8	7.3	µA
			1	1.1		1.2		2.0		5.1		
			2	1.2		1.2		2.1		5.2		
			3	1.3		1.3	1.6	2.2		5.3	8.1	
$I_{LPM4.5}$	Low-power mode 4.5(9)	3.0 V		0.15		0.18	0.35	0.26		0.5	1.0	µA

Electrical Characteristics

Active Mode Supply Current Into V_{CC} Excluding External Current

over recommended operating free-air temperature (unless otherwise noted)(1) (2) (3)

PARAMETER	EXECUTION MEMORY	V_{CC}	PMMCOREVx	FREQUENCY ($f_{DCO} = f_{MCLK} = f_{SMCLK}$)										UNIT
				1 MHz		8 MHz		12 MHz		20 MHz		25 MHz		
				TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
$I_{AM, Flash}$	Flash	3.0 V	0	0.36	0.47	2.32	2.60							mA
			1	0.40		2.65		4.0	4.4					
			2	0.44		2.90		4.3		7.1	7.7			
			3	0.46		3.10		4.6		7.6		10.1	11.0	
$I_{AM, RAM}$	RAM	3.0 V	0	0.20	0.24	1.20	1.30							mA
			1	0.22		1.35		2.0	2.2					
			2	0.24		1.50		2.2		3.7	4.2			
			3	0.26		1.60		2.4		3.9		5.3	6.2	

(1) All inputs are tied to 0 V or to V_{CC}. Outputs do not source or sink any current.
(2) The currents are characterized with a Micro Crystal MS1V-T1K crystal with a load capacitance of 12.5 pF. The internal and external load capacitance are chosen to closely match the required 12.5 pF.
(3) Characterized with program executing typical data processing. USB disabled (VUSBEN = 0, SLDOEN = 0).
f_{ACLK} = 32786 Hz, $f_{DCO} = f_{MCLK} = f_{SMCLK}$ at specified frequency.
XTS = CPUOFF = SCG0 = SCG1 = OSCOFF= SMCLKOFF = 0.