

1.消費電力データシート記載値です

LPM3	1.1uA
LPM4	0.65A

### 5.7 Low-Power Mode (LPM3 and LPM4) Supply Currents (Into $V_{CC}$ ) Excluding External Current over recommended ranges of supply voltage and operating free-air temperature (unless otherwise noted) <sup>(1)</sup>

PARAMETER	$V_{CC}$	-40°C		25°C		85°C		UNIT
		TYP	MAX	TYP	MAX	TYP	MAX	
$I_{LPM3,XT1}$ Low-power mode 3, 12.5-pF crystal, includes SVS <sup>(2)(3)(4)</sup>	3 V	0.98		1.18	1.65	3.24		$\mu A$
	2 V	0.96		1.16		3.21		
$I_{LPM3,VLO}$ Low-power mode 3, VLO, excludes SVS <sup>(5)</sup>	3 V	0.78		0.98	1.40	3.04		$\mu A$
	2 V	0.76		0.96		3.01		
$I_{LPM3,RTC}$ Low-power mode 3, RTC, excludes SVS <sup>(6)</sup> (see Figure 5-1)	3 V	0.93		1.13		3.19		$\mu A$
$I_{LPM4,SVS}$ Low-power mode 4, includes SVS	3 V	0.51		0.65		2.65		$\mu A$
	2 V	0.49		0.64		2.63		
$I_{LPM4}$ Low-power mode 4, excludes SVS	3 V	0.35		0.49		2.49		$\mu A$
	2 V	0.34		0.48		2.46		

- (1) All inputs are tied to 0 V or to VCC. Outputs do not source or sink any current.
- (2) Not applicable for MCUs with HF crystal oscillator only.
- (3) 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 load.
- (4) Low-power mode 3, 12.5-pF crystal, includes SVS test conditions:  
Current for watchdog timer clocked by ACLK and RTC clocked by XT1 included. Current for brownout and SVS included (SVSHE = 1). CPUOFF = 1, SCG0 = 1 SCG1 = 1, OSCOFF = 0 (LPM3),  
 $f_{XT1} = 32768$  Hz,  $f_{ACLK} = f_{XT1}$ ,  $f_{MCLK} = f_{SMCLK} = 0$  MHz
- (5) Low-power mode 3, VLO, excludes SVS test conditions:  
Current for watchdog timer clocked by VLO included. RTC disabled. Current for brownout included. SVS disabled (SVSHE = 0). CPUOFF = 1, SCG0 = 1 SCG1 = 1, OSCOFF = 0 (LPM3)  
 $f_{XT1} = 32768$  Hz,  $f_{ACLK} = f_{MCLK} = f_{SMCLK} = 0$  MHz
- (6) RTC periodically wakes up every second with external 32768-Hz input as source.

2.EnergyTrace実測値

LPM3	18.7uA
LPM4	1.5uA

LPM3測定データ

EnergyTrace™ Technology Terminal Power Energy

Time: 873

EnergyTrace™ Profile

Name	Live
System	
Time	873 sec
Energy	53.744 mJ
Power	
Mean	0.0615 mW
Min	0.0000 mW
Max	0.7840 mW
Voltage	
Mean	3.2886 V
Current	
Mean	0.0187 mA
Min	0.0000 mA
Max	0.2383 mA

Battery Life Custom: 22 year 2 month (est.)

LPM4測定データ

EnergyTrace™ Technology Energy Power

Time: 451

EnergyTrace™ Profile

Name	Live
System	
Time	451 sec
Energy	2.020 mJ
Power	
Mean	0.0050 mW
Min	0.0000 mW
Max	0.7801 mW
Voltage	
Mean	3.2890 V
Current	
Mean	0.0015 mA
Min	0.0000 mA
Max	0.2371 mA

Battery Life Custom: 305 year 8 month (est.)