28.2 DC Characteristics: Power-Down and Supply Current
PIC18F2455/2550/4455/4550 (Industrial)
PIC18LF2455/2550/4455/4550 (Industrial) (Continued)

PIC18LF2455/2550/4455/4550 (Industrial)				Standard Operating Conditions (unless otherwise stated) Operating temperature $-40°C \leq T_A \leq +85°C$ for industrial				
PIC18F2455/2550/4455/4550 (Industrial)				**Standard Operating Conditions (unless otherwise stated)** Operating temperature $-40°C \leq T_A \leq +85°C$ for industrial				
Param No.	Symbol	Device	Typ	Max	Units	Conditions		
Supply Current (I_{DD})[2]								
		PIC18LFX455/X550	250	500	µA	-40°C	V_{DD} = 2.0V	F_{OSC} = 1 MHz (**PRI_RUN**, EC oscillator)
		PIC18LFX455/X550	250	500	µA	+25°C		
		PIC18LFX455/X550	250	500	µA	+85°C		
		PIC18LFX455/X550	550	650	µA	-40°C	V_{DD} = 3.0V	
		PIC18LFX455/X550	480	650	µA	+25°C		
		PIC18LFX455/X550	460	650	µA	+85°C		
		All devices	1.2	1.6	mA	-40°C	V_{DD} = 5.0V	
		All devices	1.1	1.5	mA	+25°C		
		All devices	1.0	1.4	mA	+85°C		
		PIC18LFX455/X550	0.74	2.0	mA	-40°C	V_{DD} = 2.0V	F_{OSC} = 4 MHz (**PRI_RUN**, EC oscillator)
		PIC18LFX455/X550	0.74	2.0	mA	+25°C		
		PIC18LFX455/X550	0.74	2.0	mA	+85°C		
		PIC18LFX455/X550	1.3	3.0	mA	-40°C	V_{DD} = 3.0V	
		PIC18LFX455/X550	1.3	3.0	mA	+25°C		
		PIC18LFX455/X550	1.3	3.0	mA	+85°C		
		All devices	2.7	6.0	mA	-40°C	V_{DD} = 5.0V	
		All devices	2.6	6.0	mA	+25°C		
		All devices	2.5	6.0	mA	+85°C		
		All devices	15	35	mA	-40°C	V_{DD} = 4.2V	F_{OSC} = 40 MHz (**PRI_RUN**, EC oscillator)
		All devices	16	35	mA	+25°C		
		All devices	16	35	mA	+85°C		
		All devices	21	40	mA	-40°C	V_{DD} = 5.0V	
		All devices	21	40	mA	+25°C		
		All devices	21	40	mA	+85°C		
		All devices	20	40	mA	-40°C	V_{DD} = 4.2V	F_{OSC} = 48 MHz (**PRI_RUN**, EC oscillator)
		All devices	20	40	mA	+25°C		
		All devices	20	40	mA	+85°C		
		All devices	25	50	mA	-40°C	V_{DD} = 5.0V	
		All devices	25	50	mA	+25°C		
		All devices	25	50	mA	+85°C		

Legend: Shading of rows is to assist in readability of the table.

Note 1: The power-down current in Sleep mode does not depend on the oscillator type. Power-down current is measured with the part in Sleep mode, with all I/O pins in high-impedance state and tied to V_{DD} or V_{SS} and all features that add delta current disabled (such as WDT, Timer1 Oscillator, BOR, etc.).

2: The supply current is mainly a function of operating voltage, frequency and mode. Other factors, such as I/O pin loading and switching rate, oscillator type and circuit, internal code execution pattern and temperature, also have an impact on the current consumption.
The test conditions for all I_{DD} measurements in active operation mode are:
$\overline{OSC1}$ = external square wave, from rail-to-rail; all I/O pins tri-stated, pulled to V_{DD} or V_{SS};
$\overline{MCLR}$ = V_{DD}; WDT enabled/disabled as specified.

3: Standard low-cost 32 kHz crystals have an operating temperature range of -10°C to +70°C. Extended temperature crystals are available at a much higher cost.

4: BOR and HLVD enable internal band gap reference. With both modules enabled, current consumption will be less than the sum of both specifications.

28.2   DC Characteristics: Power-Down and Supply Current
PIC18F2455/2550/4455/4550 (Industrial)
PIC18LF2455/2550/4455/4550 (Industrial) (Continued)

PIC18LF2455/2550/4455/4550 (Industrial)	Standard Operating Conditions (unless otherwise stated) Operating temperature -40°C ≤ TA ≤ +85°C for industrial				
PIC18F2455/2550/4455/4550 (Industrial)	Standard Operating Conditions (unless otherwise stated) Operating temperature -40°C ≤ TA ≤ +85°C for industrial				

Param No.	Symbol	Device	Typ	Max	Units	Conditions	
		Supply Current (IDD)[2]					
		PIC18LFX455/X550	65	130	μA	-40°C	VDD = 2.0V	FOSC = 1 MHz (**PRI_IDLE** mode, EC oscillator)
			65	120	μA	+25°C		
			70	115	μA	+85°C		
		PIC18LFX455/X550	120	270	μA	-40°C	VDD = 3.0V	
			120	250	μA	+25°C		
			130	240	μA	+85°C		
		All devices	230	480	μA	-40°C	VDD = 5.0V	
			240	450	μA	+25°C		
			250	430	μA	+85°C		
		PIC18LFX455/X550	255	475	μA	-40°C	VDD = 2.0V	FOSC = 4 MHz (**PRI_IDLE** mode, EC oscillator)
			260	450	μA	+25°C		
			270	430	μA	+85°C		
		PIC18LFX455/X550	420	900	μA	-40°C	VDD = 3.0V	
			430	850	μA	+25°C		
			450	810	μA	+85°C		
		All devices	0.9	1.5	mA	-40°C	VDD = 5.0V	
			0.9	1.4	mA	+25°C		
			0.9	1.3	mA	+85°C		
		All devices	6.0	16	mA	-40°C	VDD = 4.2V	FOSC = 40 MHz (**PRI_IDLE** mode, EC oscillator)
			6.2	16	mA	+25°C		
			6.6	16	mA	+85°C		
		All devices	8.1	18	mA	-40°C	VDD = 5.0V	
			8.3	18	mA	+25°C		
			9.0	18	mA	+85°C		
		All devices	8.0	18	mA	-40°C	VDD = 4.2V	FOSC = 48 MHz (**PRI_IDLE** mode, EC oscillator)
			8.1	18	mA	+25°C		
			8.2	18	mA	+85°C		
		All devices	9.8	21	mA	-40°C	VDD = 5.0V	
			10.0	21	mA	+25°C		
			10.5	21	mA	+85°C		

Legend: Shading of rows is to assist in readability of the table.
Note 1:   The power-down current in Sleep mode does not depend on the oscillator type. Power-down current is measured with the part in Sleep mode, with all I/O pins in high-impedance state and tied to VDD or VSS and all features that add delta current disabled (such as WDT, Timer1 Oscillator, BOR, etc.).

2:    The supply current is mainly a function of operating voltage, frequency and mode. Other factors, such as I/O pin loading and switching rate, oscillator type and circuit, internal code execution pattern and temperature, also have an impact on the current consumption.
The test conditions for all IDD measurements in active operation mode are:
OSC1 = external square wave, from rail-to-rail; all I/O pins tri-stated, pulled to VDD or VSS;
MCLR = VDD; WDT enabled/disabled as specified.

3:    Standard low-cost 32 kHz crystals have an operating temperature range of -10°C to +70°C. Extended temperature crystals are available at a much higher cost.

4:    BOR and HLVD enable internal band gap reference. With both modules enabled, current consumption will be less than the sum of both specifications.