

Motorola MCF5272 ColdFire® Integrated Microprocessor Power Measurements

MCF5272 Power Analysis

Mode	Modules On	Power Management Register	Average Current (mA)	Average Voltage (V)	Average Power (mW)	Notes
STOP	None	0x87FF0020	68.6	3.30	226.38	These measurements were taken after the processor executed the "stop" instruction and before an external interrupt was detected.
STOP	All	0x00000020	197.2	3.30	650.76	
SLEEP	None	0x87FF0010	68.6	3.30	226.38	
SLEEP	All	0x00000010	197.2	3.30	650.76	
Normal	None	0x87FF0000	126.7	3.30	418.11	These measurements were taken while the processor was in a loop continuously reading from external SRAM.
Normal	All	0x00000000	244.7	3.30	807.51	
Normal	BDM	0x07FF0000	135.0	3.30	445.50	
Normal	Ethernet	0x83FF0000	139.9	3.30	461.67	
Normal	PLI	0x85FF0000	146.4	3.30	483.12	
Normal	DRAM	0x86FF0000	139.6	3.30	460.68	
Normal	DMA	0x877F0000	131.1	3.30	432.63	
Normal	PWM	0x87BF0000	129.2	3.30	426.36	
Normal	QSPI	0x87DF0000	140.9	3.30	464.97	
Normal	Timer	0x87EF0000	131.4	3.30	433.62	
Normal	GPIO	0x87F70000	128.5	3.30	424.05	
Normal	USB	0x87FB0000	156.5	3.30	516.45	
Normal	UART1	0x87FD0000	135.2	3.30	446.16	
Normal	UART0	0x87FE0000	135.6	3.30	447.48	
USB HID Mouse	USB, DRAM, BDM, UART0	0x06FA0000	203.6	3.30	671.88	These measurements were taken while running in SDRAM on the M5272C3 evaluation board with the instruction cache on. The sample
Ethernet Loopback	Ethernet, DRAM, BDM, UART0	0x02FE0000	165.0	3.30	544.50	applications run during the power analysis are provided in the MCF5272 Software Examples package on the MCF5272 website.
All of the above measurements were taken on a 2K75N mask MCF5272 running at 66 MHz at room temperature. The current and voltage measurements are for all Vdd on the MCF5272 only (no off-chip peripherals). These measurements reflect the TYPICAL case only.						