



Backup RAM

NOTE: This chapter is an excerpt from the *MSP430x5xx and MSP430x6xx Family User's Guide*. The latest version of the full user's guide is available at <http://www.ti.com/lit/pdf/slau208>.

The backup RAM is a volatile memory that is retained during LPMx.5 and operation from a backup supply (if supported by the device). This chapter describes the backup RAM.

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1.1 Backup RAM Introduction and Operation

The backup RAM provides a limited number of bytes of RAM that are retained during LPMx.5 and during operation from a backup supply (if the device integrates the complete battery backup system). At least one byte or one word (one word is preferred) should be used to generate a checksum of the stored data or to store a signature to ensure that the data is still reliable when returning from LPMx.5 or from backup operation.

1.2 Battery Backup Registers

Table 1-1 lists the backup RAM registers and their address offsets. See the device-specific data sheet for the base address of the backup RAM registers.

NOTE: All registers have word or byte register access. For a generic register ANYREG, the suffix "_L" (ANYREG_L) refers to the lower byte of the register (bits 0 through 7). The suffix "_H" (ANYREG_H) refers to the upper byte of the register (bits 8 through 15).

Table 1-1. Backup RAM Registers

Offset	Acronym	Register Name	Type	Access	Reset	LPMx.5 Backup Operation
00h	BAKMEM0	Battery Backup Memory 0	Read/write	Word	Undefined	retained
00h	BAKMEM0_L		Read/write	Byte	Undefined	retained
01h	BAKMEM0_H		Read/write	Byte	Undefined	retained
02h	BAKMEM1	Battery Backup Memory 1	Read/write	Word	Undefined	retained
02h	BAKMEM1_L		Read/write	Byte	Undefined	retained
03h	BAKMEM1_H		Read/write	Byte	Undefined	retained
04h	BAKMEM2	Battery Backup Memory 2	Read/write	Word	Undefined	retained
04h	BAKMEM2_L		Read/write	Byte	Undefined	retained
05h	BAKMEM2_H		Read/write	Byte	Undefined	retained
06h	BAKMEM3	Battery Backup Memory 3	Read/write	Word	Undefined	retained
06h	BAKMEM3_L		Read/write	Byte	Undefined	retained
07h	BAKMEM3_H		Read/write	Byte	Undefined	retained

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