

# Errata for FM31x

## RAMTRON

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**Errata Number** 001 (rev. AB, Date Code 0337)  
**Date** Oct. 2, 2003  
**Product Marking** FM3104, FM3116, FM3164, FM31256

Initial testing has identified a few problems with the FM31x family of devices.

#1	Problem:	The VTP(1:0) bits that control the low-VDD reset threshold, are not operational. The VTP threshold is fixed at 2.5V. If the user programs to a value other than 00b, the chip cannot be accessed.
	Fix:	At power up, this should have little effect on the system since the reset signal will remain active for 100-200 ms even after VDD rises above the VTP threshold. Most systems will have reached a stable VDD level long before the reset signal is deasserted. At power down, the reset signal will not be asserted until VDD reaches 2.5V. <u>Do not attempt to program the VTP bits to a non-zero value.</u> From the factory, the VTP bits have been set to 00b, i.e. VTP1=0, VTP0=0 at address 0Bh.
#2	Problem:	$I_{BAK}$ current is about 5 $\mu A$ instead of 1 $\mu A$ as specified (when the oscillator is enabled).
	Fix:	
#3	Problem:	For $V_{DD}=5V$ , $I_{SB}$ current is about 200 $\mu A$ instead of 150 $\mu A$ as specified.
	Fix:	
#4	Problem:	The trickle charger current $I_{BAKTR}$ is 1 $\mu A$ to 4 $\mu A$ instead of the specified value, which is 4 $\mu A$ min and 8 $\mu A$ max. When a capacitor is used as a backup power source and the charger turned on, the backup capacitor charge time will be longer.
	Fix:	An external circuit that provides 8 $\mu A$ or more may be added to the VBAK pin. Please contact factory for more information.

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NOTE: The above issues will be resolved with a rev. AC device. Samples will be available in late 4Q03.