



Product Change Notice Form

PCN #: 19001

This form is used to give notice to a changed product. Approvals indicate agreement with all information contained herein. The document will be implemented and released when all authorizing signatures have been obtained.

Originator:	Kelsey Mehlhorn, Director of Quality	Effective Date:	7/3/2019
Manufacturing Part Number:	TK80C51, TK87C51	Tekmos Internal Revision #	TK7821 to TK7873 TK7837-40 to TK7875-78
PCN Type: <input type="checkbox"/> Datasheet <input checked="" type="checkbox"/> Product Revision <input type="checkbox"/> Discontinuance <input type="checkbox"/> Foundry <input type="checkbox"/> Assembly <input type="checkbox"/> Test <input type="checkbox"/> Packing <input type="checkbox"/> Labeling <input type="checkbox"/> Other			
Description of Change: Tekmos is modifying the design of the TK80C51 , and TK87C51 parts. There are three things that are being changed. -The main change involves changing the POR value of the XRAM enable bit so that the XRAM is disabled at power-up. We had made it match the RA2 series, and in hindsight, we should have left it matching the FA series. This is the only functional change to the part. -In the second change, we are adjusting the one-to-zero current on ports 1, 2, and 3 to match that found on the NXP parts. The spec for this current is 650 uA, but the typical value we measure on the NXP parts is 140 uA. We use a bias generator to generate this current, and it is producing a current of only 40 uA on our parts. We are adjusting an internal resistor to increase this current up to the 140 uA target. -The third change routes the test mode reset (holding ALE and PSEN low during reset) to include the divide-by-2 on the system clock. This will make it easier to synchronize the part to our tester.			
Justification (Reason for Change): The TK80C51, and TK87C51 were having functional issues in the XRAM. As well as needed minor adjustments to ports 1,2, and 3, and the test mode reset.			
Properties of Old vs. Changed Product: XRAM will be disabled at power-up, internal resistor current will increase to 140uA, and test mode reset will be routed to include the divide-by-2 on the system clock.			
Impact on product form, fit, function, quality, or reliability: None			
Last Date of Unchanged Product: Tekmos will continue to support the unchanged product			
Date for Customer Feedback: 8/3/2019 (Note: If no comments are received by the date indicated, this will be taken as your agreement to change.)			
Date for Sample Availability: July, 2019			



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APPROVAL REQUIREMENTS		
Signers	Signature	Date
Management: Lynn Reed		5-19-19
Quality: Kelsey Mehlhorn		6/17/19
Operations: Jon Gehm		6/19/19



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Ordering Information

Original Generic Part #	Original Internal Die #	New Internal Die #
TK80C51RA2-AI	TK7821A	TK7873A
TK80C51RA2-BI	TK7821B	TK7873B
TK80C51RA2-PI	TK7821P	TK7873P
TK87C51RA2-AI	TK7837A	TK7875A
TK87C51RA2-BI	TK7837B	TK7875B
TK87C51RA2-PI	TK7837P	TK7875P
TK87C51RB2	TK7838A	TK7876A
TK87C51RB2	TK7838B	TK7876B
TK87C51RB2	TK7838P	TK7876P
TK87C51RC2	TK7839A	TK7877A
TK87C51RC2	TK7839B	TK7877B
TK87C51RC2	TK7839P	TK7877P
TK87C51RD2	TK7840A	TK7878A
TK87C51RD2	TK7840B	TK7878B
TK87C51RD2	TK7840P	TK7878P