



Preliminary

Release Notes

MC68EZ328 - DragonBall™-EZ Maskset 1J75C

This document covers errata information which relates to the maskset 1J75C of the DragonBall-EZ MC68EZ328.

1. Items 2,3,4,5,9,11 in Maskset J75C errata has been fixed.
2. Bit 0 of DRAMCONT (\$FFFC02) becomes write only bit. Cannot be read.

This is will modify in future version of User's Manual.

3. On DRAM page mode, an intermittent suprious 68K data read is found at the end of LCD DMA cycle.

A timing problem has been identified. For current maskset, it is recommended user to use EDO mode for DRAM. This will be corrected in the all layer fix.

4. Zero wait state 68K access to DRAM may cause data corruption and spurious data reading. Some extra small pulses can be seen on signal RAS0 and RAS1. This does not appear all the time.

For current maskset, it is recommended not to use 0 ws for 68K DRAM access. This item will be corrected with all layer fix.

5. DMA data of beginning of each line maybe incorrect when use LCD screen panning feature.

It is due to the fact that RAS address does not change when starting a non-consecutive new line of pixel. This item will be corrected with all layer fix.

6. Address to CAS setup time is negative for some address values at a lower voltage.

Increased address driver of EZ328 in 1J75C. The setup time is now improve to 10-12ns. However, it is still recommended to set MUX-SLOW bit of DRAM control register, which insert one clock before CAS asserts. This item will be fixed in all layer fix.

This document contains information on a product under development. Motorola reserves the right to change or discontinue this product without notice.

SEMICONDUCTOR PRODUCT INFORMATION

7. LCD contrast control multifunction when the last write to any LCD internal register is odd vaule. This does not affect the other functions of LCD controller.

Work-around: Perform an extra "00" data byte write to LCD unused register, e.g. \$FFFA40.


8. Pin PE3/UCLK/DWE cannot be configured to UCLK function.

Work-around: No.

9. In EDO mode, pixel shifts at page switching at a lower voltage level.

Work-around: Adjust VDD to above 3.6V, or use PLL VCO frequency less than 13MHz.



Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters can and do vary in different applications. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part. Motorola and  are registered trademarks of Motorola, Inc. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

Literature Distribution Centers:

USA/EUROPE: Motorola Literature Distribution; P.O. Box 20912, Arizona 85036.

JAPAN: Nippon Motorola Ltd.; 4-32-1, Nishi-Gotanda, Shinagawa-ku, Tokyo 141 Japan.

ASIA-PACIFIC: Motorola Semiconductors H.K. Ltd.; Silicon Harbour Center, No. 2 Dai King Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong.

SEMICONDUCTOR PRODUCT INFORMATION

**For More Information On This Product,
Go to: www.freescale.com**