


PROBLEM ADVISORY

1. TITLE MICROCIRCUIT, MEMORY, DIGITAL, CMOS, 1MEG X 32-BIT (32M), RADIATION-HARDENED, DUAL VOLTAGE SRAM WITH EMBEDDED EDAC, MULTICHIP MODULE			2. DOCUMENT NUMBER SPO-2018-PA-0003		
			3. DATE (Year, Month, Date) 2018, December, 21		
4. MANUFACTURER NAME AND ADDRESS CAES 4350 CENTENNIAL BOULEVARD COLORADO SPRINGS, COLORADO 80907-3486			5. MANUFACTURER POINT OF CONTACT NAME Peter Nelson		
			6. MANUFACTURER POINT OF CONTACT TELEPHONE 719-594-8238		
			7. MANUFACTURER POINT OF CONTACT EMAIL Peter.b.nelson@cobhamaes.com		
8. CAGE CODE 65342	9. LDC START 2012	10. LDC END 2017	11. PRODUCT IDENTIFICATION CODE QS17	12. BASE PART UT8ER1M32S	
13. BLANK			14. SMD NUMBER 10202	15. DEVICE TYPE DESIGNATOR 02, 04	
			16. RHA LEVELS All	17. QML LEVEL All	
			18. NON QML LEVEL	19. GIDEP NUMBER GB4-P-19-01	
20. PROBLEM DESCRIPTION / DISCUSSION / EFFECT It was discovered that the test program for UT8ER1M32S had commented out all of the array and I _O test functions. Error was discovered when the test program was being revised. It is recommended that all parts in stock be returned to CAES for retesting. Data was reviewed from UT8ER1M32S parts as well as UT8R1M39 since it uses the same die. Additionally, test programs were compared between UT8ER1M32S package testing and wafer probe to determine what tests and temperatures were not covered. The analysis showed that there is approximately a 10% fallout for the tests not performed over all three test temperatures. Some parts may not exhibit any failure due to the ECC ability to correct a single bit failure, so the failure rate observed by the customer may be less than 10%. The analysis also shows that the majority of the 10% failures occur at room and cold temperatures with the array functional patterns being the cause for the failure. 31 of 33 failures were parts failing an array pattern while the other two were I _O failures. Risk Summary: 10% fallout for part array not performing correctly or input/output current on a pin being too high.					
21. ACTION TAKEN / PLANNED Corrective actions taken: <ul style="list-style-type: none"> A script was developed to automate the test program check process and validate that all required tests were a part of the test revision release. The test program for UT8ER1M32S has been updated, validated using the new tool, and released. Please contact Jeff Brodrick to return parts for re-testing. Jeff.Broderick@cobhamaes.com (719) 594 8354					
22. DISPOSITIONARY RECOMMENDATION:		CHECK & USE AS IS <input type="checkbox"/>	CONTACT MANUFACTURER <input checked="" type="checkbox"/>	REMOVE & REPLACE <input checked="" type="checkbox"/>	CORRECT & USE AS SPECIFIED <input type="checkbox"/>
23. ADEPT REPRESENTATIVE Tim Meade		24. SIGNATURE 			25. DATE 12/21/18

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