

PROBLEM ADVISORY

1. TITLE CAES RADIATION-HARDENED 2.5 AND 3.0GBIT SDRAM MCM NON CONFORMANCE ADVISORY			2. DOCUMENT NUMBER SPO-2021-PA-0001A	
			3. DATE (Year, Month, Date) 2021,09,13	
4. MANUFACTURER NAME AND ADDRESS CAES 4350 CENTENNIAL BOULEVARD COLORADO SPRINGS, COLORADO 80907-3486			5. MANUFACTURER POINT OF CONTACT NAME Mike Leslie	
			6. MANUFACTURER POINT OF CONTACT TELEPHONE 719 594-8148	
			7. MANUFACTURER POINT OF CONTACT EMAIL mike.leslie@caes.com	
8. CAGE CODE 65342	9. LDC START See below	10. LDC END See below	11. PRODUCT IDENTIFICATION CODE QS18, QS19	12. BASE PART UT8SDMQ64M40 UT8SDMQ64M48
13. BLANK			14. SMD NUMBER 10229 10230	15. DEVICE TYPE DESIGNATOR 01, 02
			16. RHA LEVELS R, L	17. QML LEVEL Q, Q+
			18. NON QML LEVEL Proto, HiRel	19. GIDEP NUMBER GB4-P-21-01A
20. PROBLEM DESCRIPTION / DISCUSSION / EFFECT CAES is providing this ADEPT as notification that the specific device types and lots listed in Table 1. (Affected Products) sold under 5962-10229 and 5962-10230 have been provided from wafer lot material that has not been characterized for Single Event Effects (SEE) by CAES. All products provided under these SMDs have been verified to meet the Total Ionizing Dose (TID) specifications of the SMD. CAES initially provided these SDRAM MCM products from a single wafer lot of material which was SEE characterized in Q3 of 2009. The second procured lot was fabricated in Q2 2013 and SEE characterized to the SMD in Q3 2013. CAES then made a last time buy of several lots in Q1 2014. These last time buy lots have yet to be SEE tested. Unfortunately, product was built and shipped from these last time buy lots. CAES has determined that product tested during 2013 and product acquired in 2014 is of the same design revision and fabrication process and facility. Because of the material heritage similarity, CAES classifies this material as low risk of noncompliance to the SMD and expects it will perform similarly to the previously tested material. CAES plans on performing testing of a representative sample of last time buy material to verify its compliance in April 2021 (subject to beam time availability). CAES will update this ADEPT when SEE results are completed.				

Table 1. Affected Products

SMD Order Number	Manufacture Date Code	Cobham Lot Code	Ship Date
5962L1022901QYC	1448	2TYS	09-Feb-15
5962L1022902QYC	1615	2WPU	28-Dec-16
5962L1023001QXC	1515	2UML	24-Jun-15
5962L1023001QYC	1431	2SZGE	03-Feb-16
5962L1023002QYC	1431	2SZGA	08-Dec-14
5962L1023002QYC	1431	2SZGD	14-Jan-16
5962L1023002QYC	1431	2SZGF	31-Jul-17
5962L1023002QYC	1638	2ZRW	18-Nov-16
5962P1022902QYC	1615	2WPUA	07-Sep-16
5962P1022902QYC	1720	3BHUB	29-Mar-18
5962R1022901QXC	1533	2VFXA	28-Apr-16
5962R1022901QXC	1533	2VFXA	19-Jun-18
5962R1022901QXC	1533	2VFXA	16-Apr-20
5962R1022901QYC	1448	2TYSA	24-Mar-15
5962R1022901QYC	1448	2TYSB	27-Mar-15
5962R1022901QYC	1615	2WPUB	31-Oct-17
5962R1022901QYC	1739	3CDK	06-Nov-17
5962R1022901QYC	1829	3DWD	19-Sep-18
5962R1022902QXC	1533	2VFX	07-Oct-15
5962R1022902QXC	1533	2VFX	16-Feb-17
5962R1022902QXC	1533	2VFX	29-Nov-18
5962R1022902QYC	1720	3BHU	07-Sep-17
5962R1022902QYC	1720	3BHU	14-Mar-18
5962R1023001QXC	1508	QL5222	27-Feb-20
5962R1023001QXC	1519	QL5313	07-Mar-17
5962R1023001QXC	1519	QL5313	05-Dec-17
5962R1023001QXC	1519	QL5313	07-Dec-17
5962R1023001QXC	1519	QL5313	27-Feb-20
5962R1023002QXC	1538	2VPO	07-Jun-16
5962R1023002QXC	1538	2VPO	07-Jun-16
5962R1023002QXC	1538	2VPO	07-Jun-16
5962R1023002QXC	1543	2VRU	07-Jun-16
5962R1023002QXC	1543	2VRU	07-Jun-16
5962R1023002QXC	1547	2VZW	29-Dec-15
5962R1023002QXC	1547	2VZW	29-Dec-15
5962R1023002QXC	1547	2VZX	29-Dec-15
5962R1023002QXC	1547	2VZX	03-Aug-16
5962R1023002QXC	1547	2VZX	19-Jun-18
5962R1023002QXC	1610	QL5509	09-Apr-19

5962R1023002QXC	1610	QL5509	28-May-19
5962R1023002QXC Cobham AID #32-00144-1	1610	QL5509A	06-Jun-19
5962R1023002QXC	1610	QL5509B	22-Oct-19
5962R1023002QXC	1626	2WXS	23-Apr-18
5962R1023002QXC	1626	2WXS	19-Jun-18
5962R1023002QXC	1626	2WXS	12-Dec-18
5962R1023002QXC	1626	2WXS	28-May-19
5962R1023002QYC	1431	2SZG	18-Sep-15
5962R1023002QYC	1431	2SZG	18-Sep-15
5962R1023002QYC	1724	3BGH	28-Jul-17
5962R1023002QYC	1724	3BGH	28-Jul-17
5962R1023002QYC	1724	3BGH	31-Oct-17
5962R1023002QYC	1724	3BGH	01-Mar-18
5962R1023002QYC	1724	3BGH	01-Mar-18
5962R1023002QYC	1724	3BGH	01-Mar-18

Note: Affected Material must match all three Order Number, Date Code and Lot Code

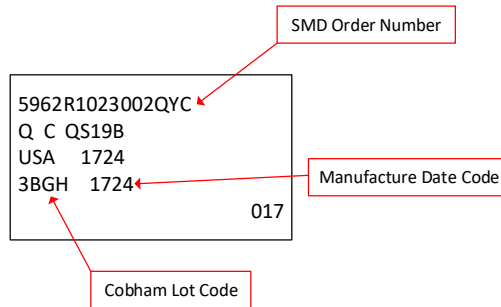


Figure 1. Device Marking Locations

21. ACTION TAKEN / PLANNED

CAES plans on performing SEE characterization of material from all last time buy lots in April 2021 and will update this ADEPT notification when results are completed.

On 07/31/2021 and 08/01/2021 CAES performed the planned SEE characterization on lots from all effected material in table 1. The results of the testing indicate that SEL and SEU performance is within the specification of both 5962-10229 and 5962-10230 for all applicable device types. An updated SEE report is available upon request.

22. DISPOSITIONARY RECOMMENDATION:

CHECK & USE AS IS

CONTACT MANUFACTURER

REMOVE & REPLACE

CORRECT & USE AS SPECIFIED