AEROSPACE DATA EXCHANGE PROGRAM TRANSMITTAL

ALERT

CAES

1. TITLE TOTAL IONIZING DOSE (TID) RADIATION TESTING ON A 512K X 32-BIT (16MB) SRAM M/S MICROCIRCUIT	**2. DOCUMENT NUMBER** SPO-2015-AL-0001
	3. DATE *(Year, Month, Date)* 2015,Mar, 05
4. MANUFACTURER NAME AND ADDRESS CAES 4350 CENTENNIAL BOULEVARD COLORADO SPRINGS, COLORADO 80907-3486	**5. MANUFACTURER POINT OF CONTACT NAME** Lin-Chi Huang
	6. MANUFACTURER POINT OF CONTACT TELEPHONE (719) 594-8294
	7. MANUFACTURER POINT OF CONTACT EMAIL Lin.chi.huang@cobhamaes.com

8. CAGE CODE	9. LDC START	10. LDC END	11. PRODUCT IDENTIFICATION CODE	12. BASE PART
65342	1010	1411	WC04, WC05, QS09-QS17	See Page 2

11. BLANK	**13. SMD NUMBER** See Page 2	**14. DEVICE TYPE DESIGNATOR** See Page 2
	15. RHA LEVELS 100 Krad(Si)	**16. QML LEVEL** Q and V
	17. NON QML LEVEL Not Applicable	**18. SUSPECT COUNTERFEIT?** ☐ **NO**

19. PROBLEM DESCRIPTION / DISCUSSION / EFFECT

An internal review determined Total Ionizing Dose (TID) testing bias circuit was limiting current when performing radiation testing to 100 krad(Si) per MIL-STD-883, M1019, Condition A. As a result of this finding, samples from previously delivered wafer lots were retested without current limiting to the bias circuit. The retested samples failed post TID functional and parametric tests at 100 krad(Si) per MIL-STD-883, M1019, Condition A.

Limited sample testing was conducted at 50 krad(Si) TID per MIL-STD-883, M1019, Condition A, to verify compliance to the lower radiation level using the improved bias setup. One wafer lot successfully passed a 22 unit sample test. Also, 2 piece samples from four different previously manufactured wafer lots successfully passed at 50 krad(Si). This testing indicates that all delivered wafers lots may meet a TID of 50 krad(Si) per MIL-STD-883, M1019, Condition A,

This product is offered as a monolithic single die device and as a multichip module (MCM). The part numbers for all of the affected delivered product are listed on page 2 of this ADEPT.

20. ACTION TAKEN / PLANNED

The TID bias circuit was modified to prevent current limiting. An engineering validation review of bias current measurements and post electrical test data was added after each TID test.

All wafer lots are being retested to verify meeting 50 krad(Si) per MIL-STD-883, M1019, Condition A.

All customers are being contacted to address affected shipments.

21. DISPOSITIONARY RECOMMENDATION:	USE AS IS ☐	CONTACT MANUFACTURER ☒	REMOVE & REPLACE ☐	CHECK & USE AS IS ☐

22. ADEPT REPRESENTATIVE	23. SIGNATURE	24. DATE
Lin-Chi Huang		**06 Mar 2015**

Affected part number

SMD part number	Generic Part number
5962R0626103VXA	UT8ER512K32S-21WCA
5962R0626106QXC	UT8ER512K32S-21WWC
5962R0626106VXA	UT8ER512K32S-21WWA
5962R1020401QXC	UT8ER4M32M-25XFC
5962R1020501VXC	UR8R1M39-21XFC
5962R1020601QXC	UR8R2M39-22XFC
5962R1020602QXC	UR8R2M39-22XFC
5962R1020601VXC	UR8R2M39-22XFC
5962R1020701QXC	UT8R4M39-25XFC
5962R1020702QXC	UT8R4M39-25XFC
5962R1020201VXC	UT8ER1M32M-21XFC
5962R1020202QXC	UT8ER1M32S-21XFC