


**PROBLEM ADVISORY**

1. TITLE Microcircuit, Digital, CMOS, Radiation Hardened, Monolithic Silicon Leon3/FT AHB Deadlock After Sequence of Load and Atomic Instructions			2. DOCUMENT NUMBER SPO-2020-PA-0002																	
			3. DATE (Year, Month, Date) 2018, February 22nd																	
4. MANUFACTURER NAME AND ADDRESS CAES 4350 CENTENNIAL BOULEVARD COLORADO SPRINGS, COLORADO 80907-3486			5. MANUFACTURER POINT OF CONTACT NAME Gaisler Support																	
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			7. MANUFACTURER POINT OF CONTACT EMAIL support@gaisler.com																	
8. CAGE CODE 65342	9. LDC START 1836/1507/1535	10. LDC END 1935/1906/1939	11. PRODUCT IDENTIFICATION CODE See table below for PA	12. BASE PART See table below																
13. BLANK			14. SMD NUMBER See table below	15. DEVICE TYPE DESIGNATOR 01																
			16. RHA LEVELS R	17. QML LEVEL See table below																
			18. NON QML LEVEL N/A	19. GIDEP NUMBER GB4-P-20-02A																
20. PROBLEM DESCRIPTION / DISCUSSION / EFFECT  This document describes a corner case that affects specific versions of the LEON3/FT processor core that can cause the LEON3/FT core to hang while executing an atomic instruction directly after a load instruction. The corner case requires a number of additional conditions to be met and the processor's memory management unit must be enabled.																				
<table border="1"> <thead> <tr> <th>Base part number</th> <th>PIC</th> <th>SMD number</th> <th>QML Level</th> </tr> </thead> <tbody> <tr> <td>UT699</td> <td>WG07</td> <td>5962-08228</td> <td>Q,V</td> </tr> <tr> <td>UT699E</td> <td>WQ02</td> <td>5962-13237</td> <td>Q</td> </tr> <tr> <td>UT700</td> <td>WQ03</td> <td>5962-13238</td> <td>Q,V</td> </tr> </tbody> </table>					Base part number	PIC	SMD number	QML Level	UT699	WG07	5962-08228	Q,V	UT699E	WQ02	5962-13237	Q	UT700	WQ03	5962-13238	Q,V
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21. ACTION TAKEN / PLANNED  LEON3/FT AHB Deadlock After Sequence of Load and Atomic Instructions Technical note 2017-12-21 Doc. No GRLIB-TN-0010 Issue 1.3																				
22. DISPOSITIONARY RECOMM 23. ENDATION:		CHECK & <input checked="" type="checkbox"/> USE AS IS	CONTACT <input type="checkbox"/> MANUFACTURER	REMOVE & <input type="checkbox"/> REPLACE	CORRECT & <input type="checkbox"/> USE AS SPECIFIED															
24. ADEPT REPRESENTATIVE <b>Lin-Chi Huang</b>		25. SIGNATURE 		26. DATE 2018, February 22nd																