



PRODUCT CHANGE NOTIFICATION

PCN-001149

Date: 5 AUGUST 2026

Change Details																							
Part Number(s) Affected: - SX1508BIULTRT - SX1508QBIULTRT		Customer Part Number(s) Affected: ☒ N/A																					
Description, Purpose and Effect of Change: This is a notification of changes to replace the lead frame manufacturer that has closed its operations. There is no change to form, fit, function or reliability. Due to DCI'S (Dynacraft Industries) plant closure, a new lead frame manufacturer, AAMI, has been qualified to replace DCI at Carsem. A comparison of materials between the old and new lead frames is listed below. All products named in this PCN are qualified by similarity to SC183CQULTRT. <table border="1"><thead><tr><th>LDF Attribute</th><th>POR DCI Lead Frame</th><th>New AAMI Lead Frame</th><th>Remark</th></tr></thead><tbody><tr><td>LDF material</td><td>C7025</td><td>C7025</td><td>No Change</td></tr><tr><td>LDF thickness</td><td>0.152mm</td><td>0.152mm</td><td>No Change</td></tr><tr><td>Finish plating thickness</td><td>Matte Tin, 300 ~1000μ"</td><td>Matte Tin, 300 ~1000μ"</td><td>No change</td></tr><tr><td>Anti-EBO</td><td>Yes</td><td>Yes</td><td>Common (coating material may be different due to proprietary material used by each supplier)</td></tr></tbody></table>				LDF Attribute	POR DCI Lead Frame	New AAMI Lead Frame	Remark	LDF material	C7025	C7025	No Change	LDF thickness	0.152mm	0.152mm	No Change	Finish plating thickness	Matte Tin, 300 ~1000μ"	Matte Tin, 300 ~1000μ"	No change	Anti-EBO	Yes	Yes	Common (coating material may be different due to proprietary material used by each supplier)
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Anti-EBO	Yes	Yes	Common (coating material may be different due to proprietary material used by each supplier)																				
Change Classification	☒ Major ☐ Minor	Impact to Form, Fit, Function	☐ Yes ☒ No																				
Impact to Data Sheet	☐ Yes ☒ No	New Revision or Date	☒ N/A																				



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Impact to Performance, Characteristics or Reliability:

- No impact to performance, characteristics; or reliability
- No Impact to data sheet content or package dimensions

Implementation Date	November 2026 or Upon customer approval	Work Week	WW46, 2026
Last Time Ship (LTS) Of unchanged product	Not Applicable	Affecting Lot No. / Serial No. (SN)	Not Applicable
Sample Availability	30 days after notification	Qualification Report Availability	Included

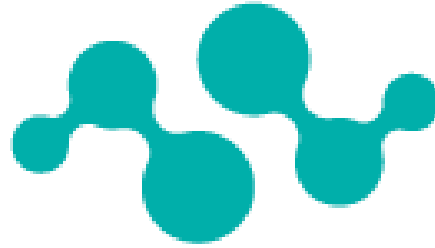
Supporting Documents for Change Validation/Attachments:

- PRODDOC037386 RelJob #8250 SC183CQULTRT Final Reliability Customer Report

Issuing Authority

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FOR FURTHER INFORMATION & WORLDWIDE SALES COVERAGE: <http://www.semtech.com/contact/index.html#support>



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**SC183CQ – BOM Change – Carsem Assembly
Final Reliability Qualification Report**

Revision History

Version	Doc #	Date	Modifications / Changes
1	PRODDOC037386	July 2026	New document

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1 Device Specifics

1.1 Manufacturing Summary

Table 1. Manufacturing Summary

Semtech Device Codes	SC183CQ
Semtech Job #	8250
Qualification Standard	JESD47
Silicon Fab Process	ASMC CMOS 0.35um
Packaging House	Carsem
Package Type	QFN 4x4 16 lead
Qual lot #	AER-011593 A/B/C

1.2 Product Qualification Approach

- Qualified wafer fab process at ASMC Fab.
- Qualified QFN package at Carsem Ipoh assembly.
- Lead frame vendor change from DCI to AAMI, epoxy change from 2700HT to ABP6395T.
- Three package qualification lots, and one HTOL / PTC lot was planned for this reliability qualification per AEC-Q100 grade 2.
- Detailed descriptions of the qualification and results can be found in the table below.

2 Reliability Qualification Stresses

Table 2.

Stress	Conditions	Duration	#Lots/SS per lot	Result	Remarks
High Temperature Operating Life	AEC-Q100 JESD22-A108 $T_j \geq 150^\circ\text{C}$, $V_{cc} \geq V_{ccmax}$	1000 hours	1 lot / 77 units*	Pass	*ATE test at room, cold, and HOT
Temperature Cycling	AEC-Q100 JESD22-A104 MSL1 Preconditioning, -55°C to $+125^\circ\text{C}$	1000 cycles	3 lots / 77 units*	Pass	*ATE test at room and HOT
Highly Accelerated Stress Test (HAST)	AEC-Q100 JESD22-A110 MSL1 Preconditioning, 110°C , 85% R.H.	264 hours	3 lots / 77 units*	Pass	*ATE test at room and HOT
High Temperature Storage	AEC-Q100 JESD22-A103 150°C	500 hours	1 lots / 45 units	Pass	*ATE test at room and HOT
Power and Temperature Cycling (PTC)	AEC-Q100 JESD22-A105 MSL1 Preconditioning, -40°C to $+105^\circ\text{C}$	1000 cycles	1 lot / 45 units	Pass	*ATE test at room and HOT
Moisture Sensitivity Level	J-STD-020 MSL1, $T_{max}=260^\circ\text{C}$ Preconditioning	168 hours	1 lot / 199 units 2 lots / 154 units	Pass	*ATE test at room and HOT

3 Conclusion

SC183CQ has completed and passed high temperature operating life (HTOL) 1000 hrs, temperature cycle (TC), biased highly accelerated stress test (HAST), high temperature storage (HTS), power and temperature cycling (PTC) 1000 cyc, and moisture sensitivity level (MSL1) testing, fulfilling final release requirements.