



Product Change Notification

PCN Number: HC133305

Notification Date: September 10, 2013

Title: ATA6670-FFQW Additional Assembly Location							
Product Identification:							
<table border="1"><thead><tr><th>Current Part ID</th><th>New Part ID</th></tr></thead><tbody><tr><td>ATA6670-FFQW</td><td>ATA6670-FFQW-1</td></tr></tbody></table>		Current Part ID	New Part ID	ATA6670-FFQW	ATA6670-FFQW-1		
Current Part ID	New Part ID						
ATA6670-FFQW	ATA6670-FFQW-1						
Reason for Change:	☐ Material / Composition ☐ Processing / Manufacturing ☐ Design / Firmware ☐ Datasheet	☒ Manufacturing Location ☐ Quality / Reliability ☐ Logistics ☐ Other:					
Change Description: As part of long term second source strategy for DFN assembly, Atmel has selected automotive certified supplier ASE (ChungLi, Taiwan) as second qualified source. ASE (ChungLi, Taiwan) is a strategic assembly partner and high volume sub-contractor for Atmel. The ATA6670-FFQW has a broad, global, customer base and is running in high volumes. The addition of a new assembly subcontractor is necessary to meet increasing demand. Package and footprint remain the same. Package qualification has been successfully completed in all respects with no technical/material deviation to the original package, making it drop-in replacement suitable.							
Identification Method to Distinguish Change: Lot number							
Qualification Data:	☒ Available <i>See the attached Qual data</i>	☐ Will be available (mm/dd/yr):	☐ Not Applicable				
Samples:	☒ Available	☐ Will be available (mm/dd/yr):	☐ Not Applicable				
Quantifiable Impact on Quality & Reliability: No Impact.							
Proposed First Ship Date*: November 20, 2013							
<i>*The Proposed First Ship Date is the forecasted date that a customer may expect to receive changed product. This is determined by the estimated date of inventory depletion on the PCN issue date. This may be affected by fluctuations in supply and demand. Consequently, although customers should be prepared to receive changed product on this date, Atmel will continue to ship pre-changed product until a time in which inventory has been depleted. This may result in pre-changed product being shipped to customers after this forecasted date.</i>							
Atmel Contact: Please contact your Atmel Sales Representative or Distributor for additional information (when replying via e-mail please include the PCN number in subject line).							

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CUSTOMER ACKNOWLEDGEMENT OF RECEIPT: Atmel requests you acknowledge receipt of this PCN. Please complete and email to pcnadm@atmel.com and the Atmel Contact listed above. In your acknowledgement, you can grant approval or request additional information. **Atmel will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice.**

To be completed by customer:

☐ Approved

☐ Rejected (Please state reason for rejection):

Company:

Name:

Title:

Date:

Email

Address:

Location:

Comments:



Qualification Report

PASS

Product	ATA6670	Quality Engineer	D. Garmatter	Phone	+49 7131 67-2834	Issue Date	2013-08-16
Technology	AT75k	Wafer Fab	CSO	Package	DFN14	Assembly Site	ASE CL
Final Test	ata6670.dll	X Cold Temp.	-43 °C	X Room Temp.	25 °C	X Hot Temp.	128 °C

Objective	Package Transfer	Start Date	2013-04-17	Completion Date	2013-08-16
Special Practice	Qual family together with ATA6663 ASE Operating temperature grade 1 (-40°C to +125°C); Pre-conditioning (PC): 1 = HTS 125°C/24h, 85°C/85%rH/168h, IR reflow 260°C/3x				

Reliability Tests and Results

Stress Test	PC	Standard	S.S.	Conditions	Reg.No.	Rev.	Lot	Code	Fails	Result	Comments
X A1 MSL	1	J-STD-020	11	HTS 125°C, 85°C/85%rH, IR reflow 260°C/3x; Tm=RT/HT	1629		EV72490		0	PASS	
X A1 MSL	1	J-STD-020	11	HTS 125°C, 85°C/85%rH, IR reflow 260°C/3x; Tm=RT/HT	1628		EV72480		0	PASS	
A2 THB		JESD22-A101									
A2 THB		JESD22-A101									
A2 THB		JESD22-A101									
X A2 HAST	1	JESD22-A110	77	130°C / 85%rH / 96h; Tm=RT/HT	1633		EV72490		0	PASS	
X A2 HAST	1	JESD22-A110	77	130°C / 85%rH / 96h; Tm=RT/HT	1632		EV72480		0	PASS	
X A2 HAST	1	JESD22-A110	77	130°C / 85%rH / 96h; Tm=RT/HT	1622		EV72450			Generic	ATA6663 DFN8, ASE
A3 AC		JESD22-A102									
A3 AC		JESD22-A102									
A3 AC		JESD22-A102									
A3 UHST		JESD22-A118									
A3 UHST		JESD22-A118									
A3 UHST		JESD22-A118									
X A4 TC	1	JESD22-A104	77	-65°C / 150°C / 1300x; Tm=RT/HT	1635		EV72490		0	PASS	
X A4 TC	1	JESD22-A104	77	-65°C / 150°C / 1300x; Tm=RT/HT	1634		EV72480		0	PASS	
X A4 TC	1	JESD22-A104	77	-65°C / 150°C / 1500x; Tm=HT	1623		EV72450			Generic	ATA6663 DFN8, ASE



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Reliability Tests and Results

Stress Test	PC	Standard	S.S.	Conditions	Reg.No.	Rev.	Lot	Code	Fails	Result	Comments
A5 PTC		JESD22-A105									
X A6 HTSL	—	JESD22-A103	45	Ts=150°C / 1000h; Tm=RT/HT	1636		EV72480		0	PASS	
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h ; Tm=LT/RT/HT	1639		EV72500		0	PASS	
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h; Tm=LT/RT/HT	1638		EV72490		0	PASS	
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h; Tm=LT/RT/HT	1637		EV72480		0	PASS	
(B1) LTOL		JESD22-A108									
X B2 ELFR	—	AEC-Q100-008, JESD22-A108	800	Ta=125°C / Tj=150°C / 48h; Tm=RT/HT	1674		EV73380		0	PASS	
X B2 ELFR	—	AEC-Q100-008, JESD22-A108	800	Ta=125°C / Tj=150°C / 48h; Tm=RT/HT	1641		EV72490		0	PASS	
X B2 ELFR	—	AEC-Q100-008, JESD22-A108	799	Ta=125°C / Tj=150°C / 48h; Tm=RT/HT	1640		EV72480		0	PASS	
B3 EDR		AEC-Q100-005									
B3 EDR		AEC-Q100-005									
B3 EDR		AEC-Q100-005									
X C1 WBS	—	AEC-Q100-001, JESD22-B116	5	30 bonds	1643		EV72480		0	PASS	
X C2 WBP	—	MIL-STD-883-2011	5	30 bonds	1643		EV72480		0	PASS	
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	1646		EV72500		0	PASS	
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	1645		EV72490		0	PASS	
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	1644		EV72480		0	PASS	
X C4 PD		JESD22-B100/B108	10				EV72500		0	PASS	
X C4 PD		JESD22-B100/B108	10				EV72490		0	PASS	



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Stress Test	PC	Standard	S.S.	Conditions	Reg.No.	Rev.	Lot	Code	Fails	Result	Comments
X C4 PD		JESD22-B100/B108	10				EV72480		0	PASS	
C5 SBS		AEC-Q100-010, JESD22-B117									
C5 SBS		AEC-Q100-010, JESD22-B117									
C5 SBS		AEC-Q100-010, JESD22-B117									
D1 EM		JESD61, JESD202, JEP119									
D2 TDDB		JESD35, JESD92									
D3 HCI		JESD28, JESD60									
D4 NBTI		JESD90									
D5 SM		JESD87									
E2 HBM		AEC-Q100-002, JS-001-2010,									
E2 MM		AEC-Q100-003, ESD STM5.2,									
E3 CDM		ESD STM5.3.1									
E4 LU		AEC-Q100-004,									
X E5 ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	1662		EV72500		0	PASS	
X E5 ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	1648		EV72490		0	PASS	



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Stress Test	PC	Standard	S.S.	Conditions	Reg.No.	Rev.	Lot	Code	Fails	Result	Comments
X E5 ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	1647		EV72480		0	PASS	
E6 FG		AEC-Q100-007									
E7 CHAR		AEC-Q003									
X E8 GL	—	AEC-Q100-006	6	Tm=RT	1649		EV72480		0	PASS	
E9 EMC		SAE J1752/3									
E9 SL-HBM		IEC/TS 62228, IEC 61000-4-2									
E10 SC		AEC-Q100-012									
E10 SC		AEC-Q100-012									
E10 SC		AEC-Q100-012									
E11 SER		JESD89-1/2/3									
F1 PAT		AEC-Q001									
F2 SBA		AEC-Q002									

Stress Test Classification: X = Required I = Only for investigation purposes

Atmel Automotive GmbH is certified according to ISO 9001:2008 and ISO/TS 16949:2009

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QualReport Rev. 20.4, 10/2012