

**PCN Number:** HC133304

**Notification Date:** September 11, 2013

<b>Title:</b> ATA6663-FAQW Additional Assembly Location			
<b>Product Identification:</b>			
<b>Current Part ID</b>		<b>New Part ID</b>	
ATA6663-FAQW		ATA6663-FAQW-1	
<b>Reason for Change:</b>			
<input type="checkbox"/> Material / Composition <input type="checkbox"/> Processing / Manufacturing <input type="checkbox"/> Design / Firmware <input type="checkbox"/> Datasheet		<input checked="" type="checkbox"/> Manufacturing Location <input type="checkbox"/> Quality / Reliability <input type="checkbox"/> Logistics <input type="checkbox"/> Other:	
<b>Change Description:</b>			
<p>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.</p> <p>The ATA6663-FAQW 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.</p> <p>Package qualification has been successfully completed in all respects with no technical/material deviation to the original package, making it drop-in replacement suitable.</p>			
<b>Identification Method to Distinguish Change:</b>			
Lot number			
<b>Qualification Data:</b>	<input checked="" type="checkbox"/> Available <i>(See the attached qual report)</i>	<input type="checkbox"/> Will be available (mm/dd/yr):	<input type="checkbox"/> Not Applicable
<b>Samples:</b>	<input checked="" type="checkbox"/> Available	<input type="checkbox"/> Will be available (mm/dd/yr):	<input type="checkbox"/> Not Applicable
<b>Quantifiable Impact on Quality &amp; Reliability:</b>			
No Impact.			
<b>Estimated Availability Date*:</b> Now			
<p><small>*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.</small></p>			

**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](mailto: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**

<b>Product</b>	ATA6663-DFN	<b>Quality Engineer</b>	D. Garmatter	<b>Phone</b>	+49 7131 67-2834	<b>Issue Date</b>	2013-08-16
<b>Technology</b>	AT75k	<b>Wafer Fab</b>	CSO	<b>Package</b>	DFN8	<b>Assembly Site</b>	ASE
<b>Final Test</b>	ata6663.dll	<input checked="" type="checkbox"/> <b>Cold Temp.</b>	-40 °C	<input checked="" type="checkbox"/> <b>Room Temp.</b>	25 °C	<input checked="" type="checkbox"/> <b>Hot Temp.</b>	125 °C

<b>Objective</b>	Package Transfer	<b>Start Date</b>	2013-04-12	<b>Completion Date</b>	2013-08-16
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**Special Practice** Family Qualification together with ATA6670  
 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	<a href="#">1621</a>		EV72460		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	<a href="#">1620</a>		EV72450		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	<a href="#">1622</a>		EV72450		0	PASS	
X A2 HAST	1	JESD22-A110	77	130°C / 85%rH / 96h; Tm=RT/HT	1633		EV72490			Generic	ATA6670, ASE DFN14
X A2 HAST	1	JESD22-A110	77	130°C / 85%rH / 96h; Tm=RT/HT	1632		EV72480			Generic	ATA6670, ASE DFN14
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 / 1500x; Tm=HT	<a href="#">1623</a>		EV72450		0	PASS	
X A4 TC	1	JESD22-A104	77	-65°C / 150°C / 1300x; Tm=RT/HT	1635		EV72490			Generic	ATA6670, ASE DFN14
X A4 TC	1	JESD22-A104	77	-65°C / 150°C / 1300x; Tm=RT/HT	1634		EV72480			Generic	ATA6670, ASE DFN14
A5 PTC		JESD22-A105									



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<b>Product</b>	ATA6663-DFN	<b>Quality Engineer</b>	D. Garmatter	<b>Phone</b>	+49 7131 67-2834	<b>Issue Date</b>	2013-08-16
<b>Technology</b>	AT75k	<b>Wafer Fab</b>	CSO	<b>Package</b>	DFN8	<b>Assembly Site</b>	ASE
<b>Final Test</b>	ata6663.dll	<input checked="" type="checkbox"/> <b>Cold Temp.</b>	-40 °C	<input checked="" type="checkbox"/> <b>Room Temp.</b>	25 °C	<input checked="" type="checkbox"/> <b>Hot Temp.</b>	125 °C
<b>Objective</b>	Package Transfer			<b>Start Date</b>	2013-04-12	<b>Completion Date</b>	2013-08-16
<b>Special Practice</b>	Family Qualification together with ATA6670 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 A6 HTSL	—	JESD22-A103	45	Ts=150°C / 1000h; Tm=RT/HT	<a href="#">1624</a>		EV72450		0	PASS	
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h; Tm=LT/RT/HT	1639		EV72500			Generic	ATA6670, ASE DFN14
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h; Tm=LT/RT/HT	1638		EV72490			Generic	ATA6670, ASE DFN14
X B1 HTOL	—	JESD22-A108	77	Ta=125°C / Tj=150°C / 408h; Tm=LT/RT/HT	1637		EV72480			Generic	ATA6670, ASE DFN14
(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			Generic	ATA6670, ASE DFN14
X B2 ELFR	—	AEC-Q100-008, JESD22-A108	800	Ta=125°C / Tj=150°C / 48h; Tm=RT/HT	1641		EV72490			Generic	ATA6670, ASE DFN14
X B2 ELFR	—	AEC-Q100-008, JESD22-A108	799	Ta=125°C / Tj=150°C / 48h; Tm=RT/HT	1640		EV72480			Generic	ATA6670, ASE DFN14
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			Generic	ATA6670, ASE DFN14
X C2 WBP	—	MIL-STD-883-2011	5	30 bonds	1643		EV72480			Generic	ATA6670, ASE DFN14
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	<a href="#">1627</a>		EV72470		0	PASS	
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	<a href="#">1626</a>		EV72460		0	PASS	
X C3 SD	—	JESD22-B102	15	HTS 150°C, SnAgCu, 245°C	<a href="#">1625</a>		EV72450		0	PASS	
X C4 PD		JESD22-B100/B108	10				EV72470			PASS	
X C4 PD		JESD22-B100/B108	10				EV72460			PASS	
X C4 PD		JESD22-B100/B108	10				EV72450			PASS	



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**PASS**

<b>Product</b>	ATA6663-DFN	<b>Quality Engineer</b>	D. Garmatter	<b>Phone</b>	+49 7131 67-2834	<b>Issue Date</b>	2013-08-16
<b>Technology</b>	AT75k	<b>Wafer Fab</b>	CSO	<b>Package</b>	DFN8	<b>Assembly Site</b>	ASE
<b>Final Test</b>	ata6663.dll	<input checked="" type="checkbox"/> <b>Cold Temp.</b>	-40 °C	<input checked="" type="checkbox"/> <b>Room Temp.</b>	25 °C	<input checked="" type="checkbox"/> <b>Hot Temp.</b>	125 °C

<b>Objective</b>	Package Transfer	<b>Start Date</b>	2013-04-12	<b>Completion Date</b>	2013-08-16
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**Special Practice** Family Qualification together with ATA6670  
 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
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 STM.5.3.1									
E4	LU	AEC-Q100-004,									
X	E5	ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	<a href="#">1726</a>		EV72470	0	<b>PASS</b>
X	E5	ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	<a href="#">1725</a>		EV72460	0	<b>PASS</b>
X	E5	ED	—	AEC-Q100-009, JESD86	30	Tm=CT/RT/HT	<a href="#">1724</a>		EV72450	0	<b>PASS</b>



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Product	ATA6663-DFN	Quality Engineer	D. Garmatter	Phone	+49 7131 67-2834	Issue Date	2013-08-16
Technology	AT75k	Wafer Fab	CSO	Package	DFN8	Assembly Site	ASE
Final Test	ata6663.dll	X Cold Temp.	-40 °C	X Room Temp.	25 °C	X Hot Temp.	125 °C

Objective	Package Transfer	Start Date	2013-04-12	Completion Date	2013-08-16
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Special Practice	Family Qualification together with ATA6670 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
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## Reliability Tests and Results

Stress Test	PC	Standard	S.S.	Conditions	Reg.No.	Rev.	Lot	Code	Fails	Result	Comments
E6	FG	AEC-Q100-007									
E7	CHAR	AEC-Q003									
X E8	GL	AEC-Q100-006	6	Tm=RT	<a href="#">1727</a>		EV72470		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