

### FINAL PRODUCT/PROCESS CHANGE NOTIFICATION Generic Copy

### 28-Jul-2009

### SUBJECT: ON Semiconductor Final Product/Process Change Notification #16302

TITLE: Update Wafer FAB for ADM1034ARQZ and ADM1033ARQZ from Analog Devices Limerick Fab to TSMC Wafer Fab.

PROPOSED FIRST SHIP DATE: 26-Oct-2009

AFFECTED CHANGE CATEGORY(S): ADM1034ARQZ and ADM1033ARQZ

AFFECTED PRODUCT DIVISION(S): Computer Products Group

### FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Mike Miskho < <u>Mike.Miskho@onsemi.com</u>> or David Short < <u>David.Short@onsemi.com</u>>

SAMPLES: Contact your local ON Semiconductor Sales Office

### ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Mike Miskho < <u>Mike.Miskho@onsemi.com</u>> or David Short < <u>David.Short@onsemi.com</u>>

### **NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact your local ON Semiconductor Sales Office.

### **DESCRIPTION AND PURPOSE:**

This PCN is to inform the customer that the ADM1034ARQZ and ADM1033ARQZ products have a change in Wafer Fab location. Note the ADM1034ARQZ and ADM1033ARQZ were originally sourced from Analog Devices internal Limerick wafer Fab. Now the ADM1033ARQZ and ADM1034ARQZ will be sourced from TSMC. This transfer was required in order to eliminate supply constraints for the subject products.

ON Semiconductor acquired the voltage regulation and thermal monitoring products (ADI-PTC) for computing applications from Analog Devices, Inc. Analog Devices continued to provide the ADM1034ARQZ and ADM1033ARQZ products for a limited time period.



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### **RELIABILITY DATA SUMMARY:**

### **Reliability Test Results:**

Test	Conditions	Duration	Results
High Temp. Storage Life (HTSL)	Ta=150°C	1008hrs	1 lot, 0/80
Hight Temp. Op Life (HTOL)	Ta=125°C	1008hrs	1 lot, 0/80
Pre-Conditioning (PC)	MSL 3 @260°C All units prior to AC/TC/HAST	N/A	Passed
Highly Accelerated Stress Test (HAST-PC)	130°C/85%RH/18.8psig/Bias	96hrs	3 lots, 0/240
Temp Cycling (TC-PC)	-65°C to +150°C, Air to Air	500cycs	3 lots, 0/240
Autoclave (AC-PC)	121°C/100%RH/15psig	96hrs	3 lots, 0/240
ESD - Human Body Model (HBM)	JESD22-A114	N/A	+/-1.5kV
ESD – Machine Model (MM)	JESD22-A115	N/A	+/-200V
Latch-up (LU)	JESD78	N/A	Passed



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# ELECTRICAL CHARACTERISTIC SUMMARY:

ADM1034 / ADM1033				New ADM1034 / ADM1033		,						
Parameter	Min	Тур	Max	Test Conditions/Comments	Min	Тур	Max	Test Conditions/Comments	Unit			
TEMPERATURE-TO-DIGITAL CONVERTER												
Internal Sensor Accuracy		±1	±2	$20^{\circ}C \leq T_A \leq 60^{\circ}C$		±1	±2	$20^{\circ}C \leq T_A \leq +60^{\circ}C$	°C			
	-4		2	$-40^\circ C \leq T_A \leq +100^\circ C$			±2.5	$-40^{\circ}\mathrm{C} \leq \mathrm{T_A} \leq +100^{\circ}\mathrm{C}$				
Resolution		0.03125				0.03125			°C			
External Diode Sensor Accuracy		±0.5	±1	$-40^{\circ}C \le T_D \le +100^{\circ}C;$ $T_A = +40^{\circ}C$		±0.5	±1	$-40^{\circ}C \le T_{D} \le +100^{\circ}C;$ $T_{A} = +40^{\circ}C$	°C			
		±1		$\label{eq:constraint} \begin{array}{l} -40^\circ C \leq T_D \leq +100^\circ C; \\ +20^\circ C \leq T_A \leq +60^\circ C \end{array}$		±1	±1.25	$\label{eq:constraint} \begin{array}{l} -40^\circ C \leq T_D \leq +100^\circ C; \\ +20^\circ C \leq T_A \leq +60^\circ C \end{array}$	°C			
	-3		2	$\begin{array}{l} -40^{\circ}C \leq T_{D} \leq +100^{\circ}C; \\ -40^{\circ}C \leq T_{A} \leq +100^{\circ}C \end{array}$			±2.5	$\begin{array}{l} -40^{\circ}C \leq T_{D} \leq +100^{\circ}C; \\ -40^{\circ}C \leq T_{A} \leq +100^{\circ}C \end{array}$	°C			
Resolution		0.03125				0.03125			°C			
Remote Sensor Source Current		85		High level		85		High level	μА			
		34		Mid level		34		Mid level	μΑ			
		5		Low level		5		Low level	μA			
Series Resistance Cancellation			1000				1000		Ω			
Power Supply Sensitivity		±1				±1			%/V			
Conversion Time (Local Temperature)		11		Averaging enabled		11		Averaging enabled	ms			
Conversion Time (Remote Temperature)		32		Averaging enabled		32		Averaging enabled	ms			
Total Conversion Time		75		Averaging enabled		75		Averaging enabled	ms			



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AFFECTED DEVICE LIST

ADM1033ARQZ ADM1033ARQZ-RL7 ADM1033ARQZ-REEL ADM1034ARQZ ADM1034ARQZ-REEL