PCN / EOL Notification

Product Change Notification Number: CC121605 **Notification Date*:** July 12, 2012

Title: 2-Kbit / 4-Kbit 3-wire Interface Automotive Grade (-40C to 125C) Serial EEPROM (AT93C56A/ AT93C66A) Process Geometric Shrink and Device Enhancement

Product Identification:

All Packages of the Automotive Temperature Grade (-40C to +125C) AT93C56A/AT93C66A

Reason for Change:

- ☒ Material / Composition
- ☒ Processing / Manufacturing
- ☒ Design / Firmware
- ☐ Logistics
- ☐ Manufacturing Location
- ☐ Quality / Reliability

Change Description:

Atmel has performed a process geometry shrink of the Serial EEPROM Automotive Temperature Grade AT93C56A/93C66A device (3-wire interface, 2-Kbit / 4-Kbit densities) from .35µ to .25µ. The catalog part number AT93C56A/93C66A will be replaced by AT93C56**B**/93C66**B** (see Table 1). The new devices are pin-to-pin and functionally backward compatible with the current AT93C56A/93C66A devices with the following exceptions and enhancements.

Extended-VCC Operation

With a growing number of application segments moving to lower supply voltages, Atmel is developing next generation devices to meet the needs of these lower voltages. These voltage ranges are used by various MCUs, SoCs, and ASICs as process lithographies for such products continue to reduce. To address these voltage requirements, Atmel has designed the AT93C56**B**/93C66**B** devices to operate over a 2.5V to 5.5V range versus the previous 2.7V to 5.5V range.

Conversion to Nickel-Palladium-Gold (NiPdAu) lead finish

New devices will be available in the more robust NiPdAu lead finish. The NiPdAu lead finish complies with “green” packaging standards, and all package options remain RoHS compliant and Pb/Halide/Halogen-free. The “P” designation as part of the package designator suffix in the catalog part number identifies the NiPdAu lead finish for Automotive Temperature grade product.

Package material set changes

Atmel assembly subcontractor, Amkor Technology Philippines, SOIC and TSSOP package material sets will change as noted in the following table:

ATP	SOIC		TSSOP	
Material Set	**From**	**To**	**From**	**To**
Die Attach	Ablebond 84-1 LMISR4	Ablebond 8290	Ablebond 8290	NO Change
Wire Diameter	0.8 mil Au	0.6 mil Au	0.8 mil Au	NO Change
Mold Compound	Sumitomo EME-G700	Nitto-GE900S	Sumitomo EME-G700	Hitachi CEL-8240HF 10P
Lead Finish	Matte Sn	NiPdAu	Matte Sn	NiPdAu

Delivery Options

To further stream line the shipping and handling process, Atmel is eliminating bulk delivery options. The new AT93C56**B**/93C66**B** devices will be offered in Tape and Reel only.

Identification Method to Distinguish Change:

NEW catalog part numbers use "**B**" suffix for the device revision (AT93C56A changes to AT93C56**B** and AT93C66A changes to AT93C66**B**). Please refer to Attachment A for part marking scheme.

Table 1.

This is the listing for standard datasheet offering, PCN also applies to all (customer specific) special CAN part numbers that are not listed in the table below:

EOL Part Number	Replacement Part Number	Package	Carrier Type
AT93C56A-10SQ-2.7[1]	AT93C56**B**-SSPD-T[3]	SOIC	T/R, 4K per reel
AT93C56A-10SQ-2.7 SL383[2]	AT93C56**B**-SSPD-T[3]	SOIC	T/R, 4K per reel
AT93C56A-10TQ-2.7[1]	AT93C56**B**-XPD-T[3]	TSSOP	T/R, 5K per reel
AT93C56A-10TQ-2.7 SL383[2]	AT93C56**B**-XPD-T[3]	TSSOP	T/R, 5K per reel

Notes:

1. **Bulk will no longer be an ordering option, Tape and Reel ordering only offered**
2. **SL383 will be eliminated and replaced with "-T" to denote Tape and Reel**
3. **Please reference qualification pack for further details**

EOL Part Number	Replacement Part Number	Package	Carrier Type
AT93C66A-10SQ-2.7[1]	AT93C66**B**-SSPD-T[3]	SOIC	T/R, 4K per reel
AT93C66A-10SQ-2.7 SL383[2]	AT93C66**B**-SSPD-T[3]	SOIC	T/R, 4K per reel
AT93C66A-10TQ-2.7[1]	AT93C66**B**-XPD-T[3]	TSSOP	T/R, 5K per reel
AT93C66A-10TQ-2.7 SL383[2]	AT93C66**B**-XPD-T[3]	TSSOP	T/R, 5K per reel

Notes:

1. **Bulk will no longer be an ordering option, Tape and Reel ordering only offered**
2. **SL383 will be eliminated and replaced with "-T" to denote Tape and Reel**
3. **Please reference qualification pack for further details**

Qualification Data:	☒ Available	☐ Will be available (mm/dd/yr):	☐ Not Applicable
Samples:	☒ Available	☒ TSSOPs will be available (08/10/12)	☐ Not Applicable

Quantifiable Impact on Quality & Reliability:

None

Forecasted Availability Date: Now

Last Time Buy Date: December 31, 2012

Last Ship Date: June 25, 2013

**All orders placed after the notification date are non-cancellable and non-returnable (NCNR).*

Atmel Contact: pcnadm@atmel.com

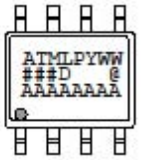
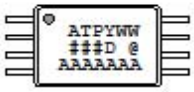
Attention Distributors: Product(s) identified in this notification will become obsolete and as such this EOL notification will act as the official written notification. All obsolete products will be listed in the next published quarterly distributor price book, following an PCN/EOL change, and listed on the obsolescence form which accompanies said price book. Within thirty (30) days from the published date of the price book, Distributor shall notify Atmel in writing of Distributor's then current inventory of the obsolete product

CUSTOMER ACKNOWLEDGEMENT OF RECEIPT: Atmel requests you acknowledge receipt of this PCN / EOL. Please complete and email to 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.**

Company:	
Name:	
Title:	
Date:	
Email Address:	
Location:	
Comments:	

Attachment A

AT93C56B and AT93C66B: Package Marking Information

8-lead SOIC	8-lead TSSOP
	

Note 1: Ⓓ designates pin 1
Note 2: Package drawings are not to scale

Catalog Number Truncation			
AT93C56B		Truncation Code ###: 56B	
AT93C66B		Truncation Code ###: 66B	
Date Codes			**Voltages**
Y = Year	**M = Month**	**WW = Work Week of Assembly**	D: 2.5V min
2: 2012 6: 2016 3: 2013 7: 2017 4: 2014 8: 2018 5: 2015 9: 2019	A: January B: February ... L: December	02: Week 2 04: Week 4 ... 52: Week 52	
Country of Assembly	**Lot Number**		**Grade/Lead Finish Material**
@ = Country of Assembly	AAA...A = Atmel Wafer Lot Number		P: Automotive/NiPdAu
Trace Code			**Atmel Truncation**
XX = Trace Code (Atmel Lot Numbers Correspond to Code) Example: AA, AB.... YZ, ZZ			AT: Atmel ATM: Atmel ATML: Atmel

3/15/12

	TITLE	DRAWING NO.	REV.
Package Mark Contact: DL-CSO-Assy_eng@atmel.com	93C56-66BAM, AT93C56B and AT93C66B Automotive Package Marking Information	93C56-66BAM	C