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PCN17014-1

【 A new fully-automated SMB backend assembly line increase 】

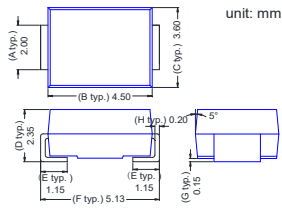
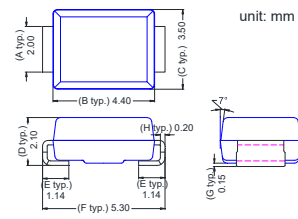
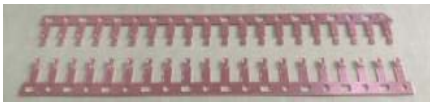
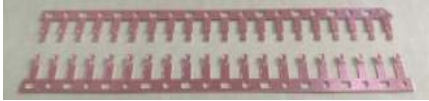
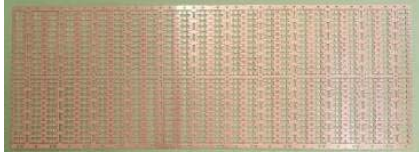
Prepared by May Zhang
Checked by Venkey
Approved by Keller
Issued date at 2017.2.16
Reversion for A

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HQ4PE03-A

Comparison report

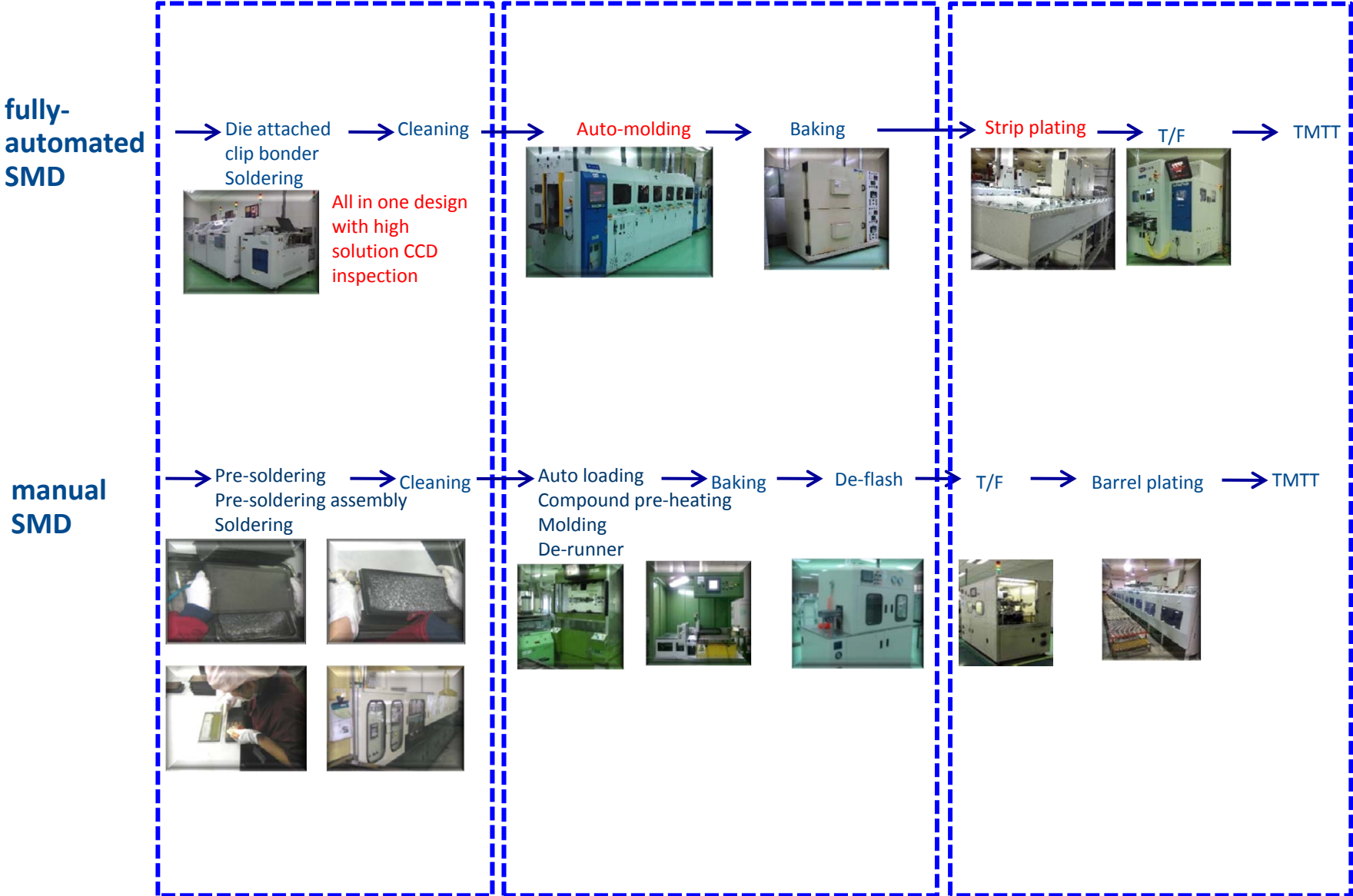
Subject PCN NO: PCN17014-1
Consumer SMB Comparison Report

No	Item	Before	After	Remark
1	Processes	manual SMB production line	1.manual SMB production line 2.fully-automated SMB production line	Refer the attached 1.Processes Comparison
2	General appearance	Follow D/S POD refer to the attached	Follow D/S POD refer to the attached	Refer the attached 2.SMB Appearance
3	Package Outline	Follow D/S Spec.  unit: mm	Follow D/S Spec.  unit: mm	
4	Lead Frame	Supplier : A Material : Copper 	1. manual SMB Supplier : A Material : Copper  2. fully-automated SMB Supplier : B Material : Copper 	
5	Molding Compound	Consumer (Non-HF) Type: EME-1100 Supplier : A Material : Epoxy Consumer (HF) Type: EME-E110 Supplier : A Material : Epoxy	1.manual SMB Consumer (Non-HF) Type: EME-1100 Supplier : A Material : Epoxy Consumer (HF) Type: EME-E110 Supplier : A Material : Epoxy 2. fully-automated SMB Consumer (HF) Type: EME-E500 Supplier : A Material : Epoxy	






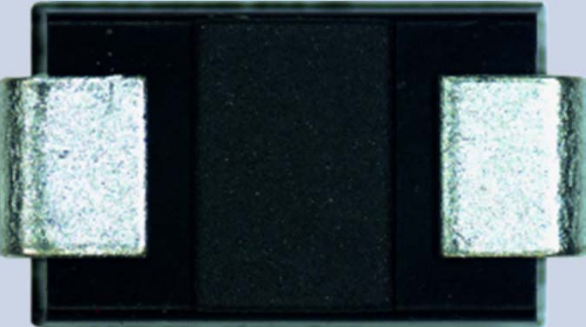
6	Marking	Marking no square around datecode	1.manual SMB Marking no special square around datecode 2. fully-automated SMB Marking add special square around datecode	Refer the attached 6.Marking
7	Packing	13" Paper Reel & 13" Plastic Reel refer to the attached	1.manual SMB Marking 13" Paper Reel & 13" Plastic Reel 2. fully-automated SMB Marking 13" Plastic Reel	Refer the attached 7.Packing

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Processes Comparison---fully-automated SMD vs manual SMD processes

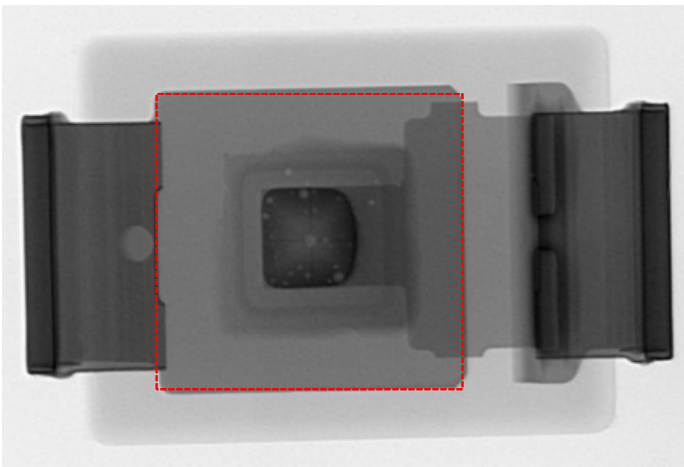
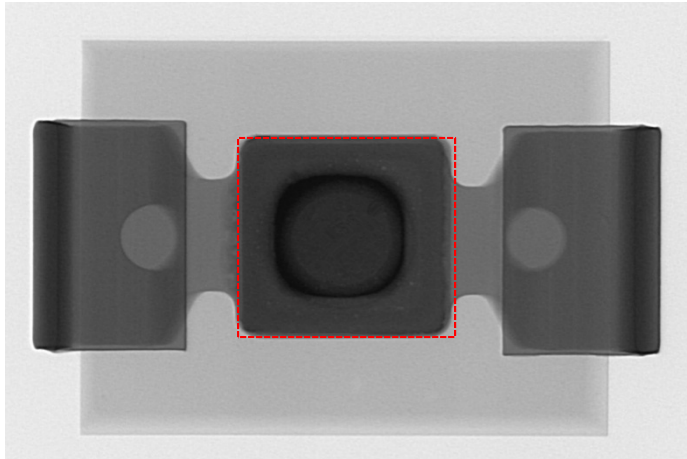
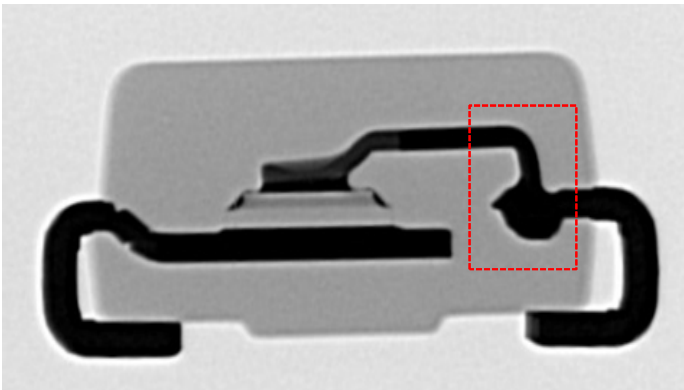
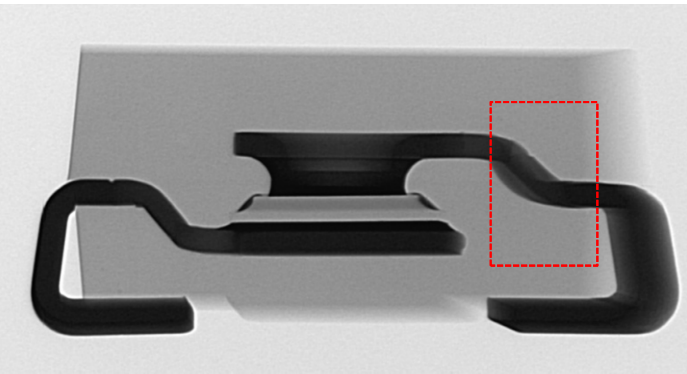


Appearance Comparison---fully-automated SMB & SMB

Item	fully-automated SMB	SMB
Top		
Side		
Bottom		

Uniform forming designed

X-RAY Comparison----- example SMB

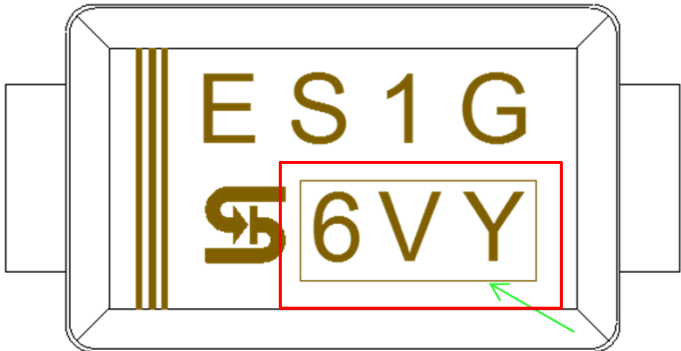
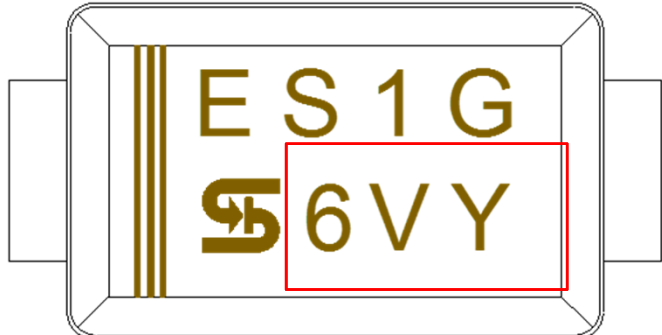


Item	fully-automated SMB	SMB
Top		
Side		

Big die solder pad designed for better thermal dissipation.

Additional solder joint between Leadframe and clip reduce soldering thermal stress from wave soldering.

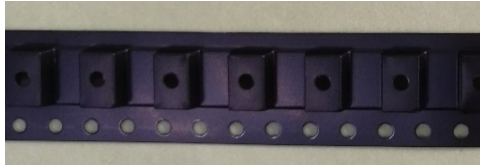

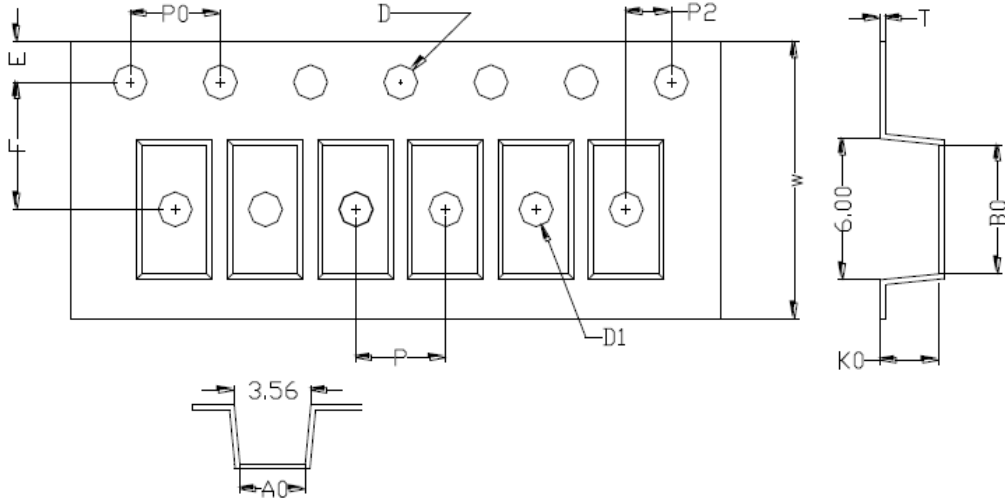
Extension temperature cycle from 1000cyc. To 3000cyc.

Identified marking on device between fully-automated SMD VS manual SMD




fully-automated SMD	manual SMD
	
	

Device special square around datecode during marking to identified new fully-automated SMD comparing with before

fully-automated SMD APPLIED STATIC FREE PACKING INSTEAD ANTi_ESD

Package	fully-automated SMD (Static Free)	Original SMD (Anti-ESD)
Carry	 <p>Surface resistance $10^6 \sim 10^8$; Term of validity: permanent</p> <p>SMA:A0:2.80mm;B0:5.33mm;K0:2.35mm SMB:A0:3.70mm;B0:5.55mm;K0:2.35mm A0:width B0:length K0:height</p>	 <p>Surface resistance: $10^6 \sim 10^{11}$ Term of validity: 12 months</p> <p>SMA:A0:2.90mm; B0:5.59mm;K0:2.36mm SMB:A0:3.76mm; B0:5.69mm;K0:2.67mm A0:width B0:length K0:height</p>
		

fully-automated SMD APPLIED STATIC FREE PACKING INSTEAD ANTI_ESD

Package	fully-automated SMD (Static Free)	Original SMD (Anti-ESD)	
Reel	 <p data-bbox="624 644 1028 724">13" Plastic Reel Surface resistance <math>< 10^8</math></p>	 <p data-bbox="1207 667 1458 703">13" Paper Reel</p>	 <p data-bbox="1534 644 1946 724">13" Plastic Reel Surface resistance <math>< 10^{11}</math></p>
Pizza Box	