

PRODUCT CHANGE NOTICE

产品变更申请

PCN#编号:	PCN#20251024-001	Date 日期:	2025/10/24		
Subject 主题: 关于封装形式为 DUB8 的 CA-IS1200U & CA-IS305XU & CA-IS3211XXU 系列产品的框架从 Etching 变更为 Stamping 的 PCN。 The DUB8 PKG with part numbers CA-IS1200U & CA-IS305XU & CA-IS3211XXU changed the lead frame of the product from Etching to Stamping PCN.					
Originator 发起人:	Taotao Gu	Phone 电话:	+86-021-50838601	Dept.部门:	Operation
Change Details 变更说明					
Change Classification 变更等级:	<input checked="" type="checkbox"/> 一级变更 <input type="checkbox"/> 二级变更 <input type="checkbox"/> 三级变更 <input type="checkbox"/> 四级变更				
Change Type 变更类型:	<input type="checkbox"/> Wafer Fabrication 晶圆制造 <input checked="" type="checkbox"/> Assembly 封装 <input type="checkbox"/> Test 测试 <input type="checkbox"/> Product Revision 产品改版 <input type="checkbox"/> Datasheet 产品规格书 <input type="checkbox"/> End of Line 停产 <input type="checkbox"/> Other 其它				
Description of Changes 变更描述: 框架工艺的变更，从蚀刻工艺升级为冲压工艺 Change in lead frame process, upgraded from etching process to stamping process					
Reason for Changes 变更原因: 1、此次工艺升级旨在通过先进的冲压技术，确保更一致的产品尺寸精度和更高的可靠性，从而加强我们产品的长期稳定性。 This process upgrade is designed to ensure more consistent product dimensional accuracy and higher reliability through advanced stamping technology, thus enhancing the long-term stability of our products. 2、通过转向冲压工艺，我们不仅优化了生产流程，减少了材料浪费，还提升了能效，这是我们对可持续发展承诺的一部分 By shifting to a stamping process, we have not only optimized our production processes and reduced material waste, but we have also improved energy efficiency as part of our commitment to sustainability. 3、此变更将使我们能够更快速地响应市场变化，缩短交货周期，增强我们的供应链管理，以更高效的方式支持您的业务需求 By shifting to a stamping process, we have not only optimized our production processes and reduced material waste, but we have also improved energy efficiency as part of our commitment to sustainability.					
Impact of the change (positive or negative) on fit, form, function & reliability 变更（正面或负面）对外观、尺寸、功能和可靠性的影响： 框架工艺变更后对产品的外观及尺寸无影响，我司已验证工程批对框架变更后的功能进行确认，并完成了完整可靠性实验，结果无影响。 The Lead frame process modification has no impact on the product's appearance or dimensions. Our company has verified the functionality of the modified lead frame through engineering validation and completed comprehensive reliability testing, with results confirming no adverse effects.					
Affected Part Number 受影响产品型号: 封装形式: DUB8 产品型号: CA-IS1200U & CA-IS3050U & CA-IS3050CU CA-IS3211VBU & CA-IS3211VCU & CA-IS3211CVCU					

Samples Status 样品状态: 根据客户要求, 可在六周内提供样品。 For other part numbers, samples can be provided within six weeks upon customer request.	
Implementation Date 实施日期: 量产切换: 预计工厂切换的日期为 2025 年 11 月 Volume production switchover: The expected date for plant switchover is Nov. 2025.	
Appendix 附件: 更新版可靠性报告 Updated Reliability Report	
Chipanalog Approval/Comment: <input checked="" type="checkbox"/> Approval <input type="checkbox"/> Not approval <input type="checkbox"/> Other	Date: 2025 年 10 月 24 日 Name/ title: Chen, Liang/Quality Director
Customer Approval/Comment: <input type="checkbox"/> Approval <input type="checkbox"/> Not approval <input type="checkbox"/> Other	Date: Name/ title:

Remark: After Chipanalog notice of change is issued, for class 1 change, please review within 30 calendar days. For class 2 change, please review within 15 calendar days. If there is any problem, please feedback timely. If there is no feedback, you will agree to the change by default.

备注: 川土变更通知发出后, 一级变更请您在 30 天内进行评审, 二级变更请您在 15 天内进行评审。若有问题, 请您及时反馈。若未反馈, 默认您同意变更。

For additional information regarding this change, contact your local sales representative or contact the PCN administrator at chenliang@chipanalog.com.
 有关此更改的其他信息, 请联系销售代表或 PCN 管理员: chenliang@chipanalog.com.



Reliability Test Report

Qualification Purpose: Device Change Qualification
Report Version: V1.0

Prepared by	Reviewed by	Approved by
邵晓梅	孙和芳	陈亮

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1. Overview

Reliability testing of microelectronic products is a risk mitigation process designed to ensure the service life of device in customer applications. Semiconductor wafer manufacturing process and package-level reliability can be assessed in a variety of ways and may include accelerated environmental test conditions. Chipanalog evaluates manufacturability of the device to verify a robust silicon and assembly flow to ensure continuity of supply to customers. Chipanalog qualifies new devices, significant changes, and product families based on JEDEC JESD47. This report aims to show the reliability test results for the bonding wire change and lead frame process change on certain products in the DUB8 package.

2. Part Number List

Change List	Package Type	Part Number
GroupA	DUB8(U)	CA-IS1200U/CA-IS3050U
GroupB	DUB8(U)	CA-IS3050CU/CA-IS3211VBU/CA-IS3211VCU/CA-IS3211CVCU

Note: JEDEC specification is designed to also qualify a family of similar components utilizing the same fabrication process, design rules, and similar circuits. The family qualification may also be applied to a package family where the construction is the same and only the size and number of leads differs.

3. Product Information

3.1. Package Information-DUB8-GroupA

	Before	After
Assembly site	JCET-D9	JCET-D9
FT site	JCET-D9	JCET-D9
Package	DUB8	DUB8
Lead frame Process	Etching Process	Stamping Process
Bond wire	20um Au	20um AuPdCu
MSL level	MSL3	MSL3

3.2. Package Information-DUB8-GroupB

	Before	After
Assembly site	JCET-D9	JCET-D9
FT site	JCET-D9	JCET-D9
Package	DUB8	DUB8
Lead frame Process	Etching Process	Stamping Process
Bond wire	AuPdCu	AuPdCu
MSL level	MSL3	MSL3

4. Reliability Requalification Plan

Base on JESD 47L Part 6.4 Guidelines for Stress Tests for Product / Process Changes, the wire bonding related process change reliability qualification plan is as following:

Stress	Ref.	Abbv.	Conditions	Duration /Accept
MSL Preconditioning	JESD22-A113	PC	Per appropriate MSL level per J-STD-020	Electrical Test (optional)
High Temperature Storage	JESD22-A103 & A113	HTSL	150°C, 1000 hrs	1000 hrs/0 Fail
Temperature Cycling	JESD22-A104	TC	-65°C to 150°C	1000 cycles/0 Fail
Unbiased Temperature	JESD22-A102	uHAST	130°C, 85% RH, 33.3 psia	96hrs/0 Fail
Biased Temperature/Humidity	JESD22-A110	HAST	130°C, 85% RH, 33.3 psia, Vcc=Vcc _{max}	96hrs/0 Fail
Bond Pull Strength	JESD22-B120	BPS	Characterization, Pre Encapsulation	Ppk≥1.66 or Cpk≥1.33
Bond Shear	JESD22-B116	BS	Characterization, Pre Encapsulation	Ppk≥1.66 or Cpk≥1.33

Note: Three lots totally come from the impact list .

5. Reliability Test Results

5.1. Package Reliability Test Results

Package Type: DUB8				
Stress	Condition	Duration	Sample size	Results
PC	MSL 3	/	231*4 lot	Pass
HTSL	T _A = 150°C	1000 hrs	77*4 lot	Pass
TC	-65°C to 150°C	1000 cycles	77*4 lot	Pass
uHAST	130°C, 85% RH, 33.3 psia	96 hrs	77*4 lot	Pass
HAST	130°C, 85% RH, 33.3 psia, Vcc=5.5V	96 hrs	77*4 lot	Pass
BPS	JESD22-B120	/	30 bonds/5 ea.	Pass
BS	JESD22-B116	/	30 bonds/5 ea.	Pass

Note: qual vehicle is CA-IS1200U & CA-IS3050U& CA-IS3211VCU& CA-IS3211CVCU.

6. Conclusion

The reliability qualifications for the bonding wire process change and the lead frame process change have been passed according to JEDEC standards.

Disclaimer

This information is provided to assist customers in design and development. It could change for technology innovation without notice.

The devices are shipped after passing final test. Customers are responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications.

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Revision History

Revision	Change Log	Date
V1.0	Initial release	Oct, 2025