

Issue Date: 26/01/2024

MANAGEMENT SUMMARY

As part of AMPLEON’s continuous improvement activity, the die bond process for the IPD passive in OMP400 will be changed from CDAF to AgSinter. AgSinter gives a more robust die bond adhesion and enables simplification (and standardization) of the OMP400 process flow.

CHANGE CATEGORY

☒ Assembly Process ☒ Assembly Materials

CHANGE FROM CDAF TO AGSINTER FOR PASSIVE DIE BOND IN OMP400

INFORMATION NOTIFICATION

DIEBOND OF THE PASSIVE (IPD) DIE IN OMP400 WILL CHANGE FROM CDAF TO AGSINTER, SEE ALSO PRESENTATION AVAILABLE IN EPCN TOOL

WHY DO WE ISSUE THIS INFORMATION NOTIFICATION

TO INFORM THE CUSTOMER ON THE ISSUE OF A NEW DATASHEET.

IDENTIFICATION OF AFFECTED PRODUCTS

Product identification does not change

PRODUCT AVAILABILITY

SAMPLE INFORMATION

Samples are available upon request

IMPACT

DATA SHEET REVISION

No impact to existing datasheet.

DISPOSITION OF OLD PRODUCTS

Existing inventory will be shipped until depleted.

Additional Information

Affected products, sales history information as well as Self Qualification / additional documents can be accessed online.

TIMING AND LOGISTICS

First shipments are planned as of July 1 2024

THE SELF QUALIFICATION REPORT WILL BE READY ON 31/05/2024

THE FINAL PCN IS PLANNED TO BE ISSUED ON 03/06/2024

CONTACT AND SUPPORT

For all inquiries regarding the ePCN tool application or access issues, please contact [Ampleon "Quality Support Team"](#).
For all Quality Notification content inquiries, please contact your local Ampleon Sales Support team.

At Ampleon we are dedicated to creating optimal value for our customers.
Ampleon Quality Management Team.

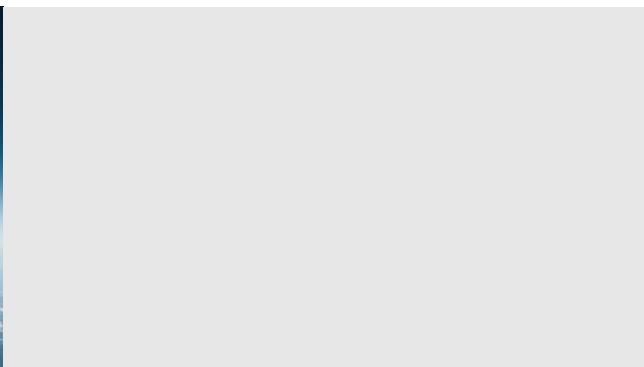
ABOUT AMPLEON

Created in 2015, Ampleon is shaped by 50 years of RF power leadership and is set to exploit the full potential of data and energy transfer in RF. Ampleon has more than 1,250 employees worldwide, dedicated to creating optimal value for customers. Its innovative, yet consistent portfolio offers products and solutions for a wide range of applications, such as cellular base stations, radio/TV/broadcasting, radar, air traffic control, cooking, lighting, industrial lasers and medical. For details on the leading global partner in RF Power, visit www.ampleon.com.

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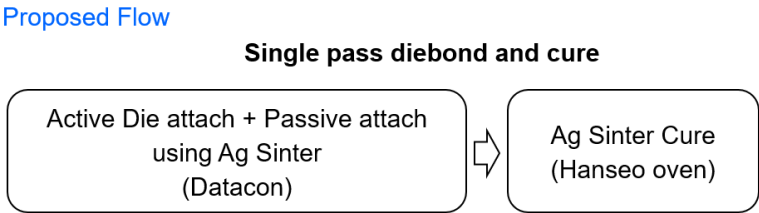
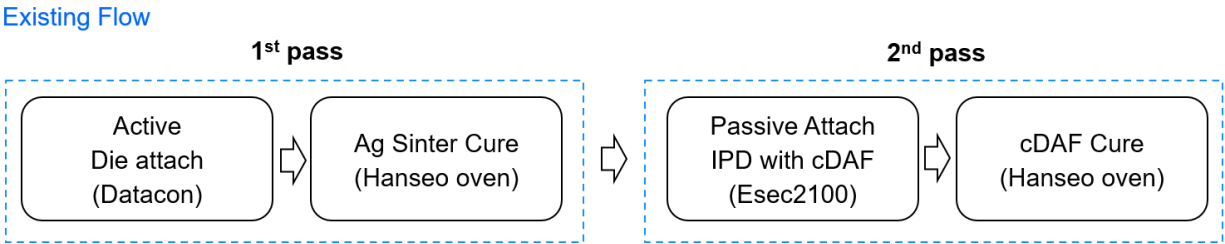
Advanced PCN _ Ag sinter on Passive die of OMP400



1/19/2024

Change

From	To	Rationale
Using cDAF on Passive die (IPD) of OMP400 BLM10D1822-61ABG device	Using Ag sinter on Passive die (IPD) of OMP400 BLM10D1822-61ABG device	<ul style="list-style-type: none">- Quality:<ul style="list-style-type: none">- improved diebond adhesion (to prevent video bandwidth performance issues).- Standardization and simplification in die bond processes: AgSi diebond, and Single Pass Diebond and Single Pass Oven Cure)



Content

This report describes the initial qualification results for the release of Ag sinter die attach on IPD capacitor of OMP400 devices. Data presented are the workmanship and reliability result of the Proof point samples, followed by qualification plan using three qualification lots. This qualification uses OMP400 BLM10D1822-61ABG device as carrier.

Comparison will be made between reliability performance of cDAF vs Ag sinter on IPD.

Assessment on Proof point samples show DC and RF performance meeting the DeltaSigma requirements and no delamination observed Post TMCL 1000c, Post uHAST 96H and Post HTSL 1008H.

Three qualification lots are now prepared for further Reliability testing to finalize the qualification.

Table 1. Qualification Plan and Reliability Test Results – Proof Point Sample

Test	Conditions	Requirement	Sample Size (Qty x Lot)	Test Carrier/s	RESULTS
TMCL	-65°C/+150°C w/ MSL3+3x reflow 260C	1000c	77x1	BLM10D1822-61ABG	PASS until 1000 cycles
TMCL	-65°C/+175°C w/ MSL3+3x reflow 245C	info	77x1	BLM10D1822-61ABG	PASS until 1000 cycles
UFAST	130°C/85% w/ MSL3+3x reflow 260C	96H	77x1	BLM10D1822-61ABG	PASS until 192H
HTSL	175C	1008H	77x1	BLM10D1822-61ABG	PASS until 1008H

- 1 lot used for the proof point build

Table 2. Qualification Plan and Reliability Test Results – Qualification Lots

Test	Conditions	Requirement	Sample Size (Qty x Lot)	Test Carrier/s	RESULTS
TMCL	-65°C/+150°C w/ MSL3+3x reflow 260C	1000c	77x3	BLM10D1822-61ABG	For load at REL
UHASt	130°C/85% w/ MSL3+3x reflow 260C	96H	77x3	BLM10D1822-61ABG	For load at REL
HTSL	175C	1008H	77x3	BLM10D1822-61ABG	For load at REL

➤ 3 lots used for the qualification build

