

Inspection Report

Report No:	KHT-20250220-007	Sales:	Wendy	Department Of Application	Sales
Receipt Date:	2025-02-17	Test Date:	2025-02-17	Report Date:	2025-02-20
Inspector:	Wade	Approved by:	David	Approved by:	Jan Guo

Sample Information					
Part Number:	RTL8305SC-LF	Package Type:	QFP128	D/C:	24+
Package Carrier:	Tray	Manufacturer:	REALTEK	MSL:	3
Quantity Received:	400pcs	Quantity Inspected:	5pcs	PO Number:	PO13 2 2025 KEHUIITE
Incoming information:Incoming goods are packed in trays, 400pcs in total.No original packaging and original labels, no abnormality such as damage or wetting.					

Test Content			
Report Summary:	Details:	Risk Level:	
Inspection Items	Reference Standards	Results	Notes
1.External Visual Inspection			
1.1 Product Information	AS6081 IDEA-STD-1010-B	PASS	
1.2 Surface Analysis		PASS	
1.3 Pin Plating Analysis		PASS	
1.4 Aceton Inspection		PASS	
1.5 Device Dimension Measurement	Device Datasheet	PASS	
2.X-RAY Test			
2.1 X-Ray Internal Structure Inspection	GJB548B-2005	PASS	
3.Solderability Test			
3.1 Solderability Test	IPC J-STD-002D/2C	/	
4.De-cap Die Analysis			

4.1 De-cap Die Analysis	GJB 4027A-2006	PASS	
5.SEM & EDS Analysis			
5.1 Microstructure Analysis	JY/T 0584-2020	/	
5.2 Pin Material Analysis	GB/T 17359-2012	/	
6.RoHS Test			
6.1 RoHS Test	RoHS Order	/	
7.IV Test/Electrical Performance Test			
7.1 IV Test/Electrical Performance Test	Datesheet	/	
8.XRF Analysis			
8.1 Coating Thickness Analysis	Datesheet	/	
9.C-SAM Analysis			
9.1 Ultrasonic Inspection	IPC/JEDEC J-STD-035:1999	/	

Conclusion and Suggestions	
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Conclusion:	Incoming 400pcs for the same marking. Check the appearance of the chips one by one, no significant abnormalities were observed; 5pcs were detected by sampling detection method, EVI passed, X-RAY test passed, De-cap Die analysis passed.
Suggestions:	

Notes and Disclaimers:

1. The report is invalid without the signature of the quality inspector and QC supervisor.
2. No part of this publication may be reproduced, altered or distributed publicly in any form or by any means without the prior written permission of Kehuite Technology Development Limited.
3. Any questions about the goods, please contact the corresponding salesman.

Datasheet:

https://item.szlcsc.com/datasheet/RTL8305SC-LF/141077.html?spm=sc.gb.xds.a__sc.hm.hd.ss&lcsc_vid=QVhdX1ReTlJaVwdRFIRXUFNUTgVdAlcHFFfVFMARlIxVINVTlhaUVNSQFdYVDtW



1.External Visual Inspection

1.1 Product Information

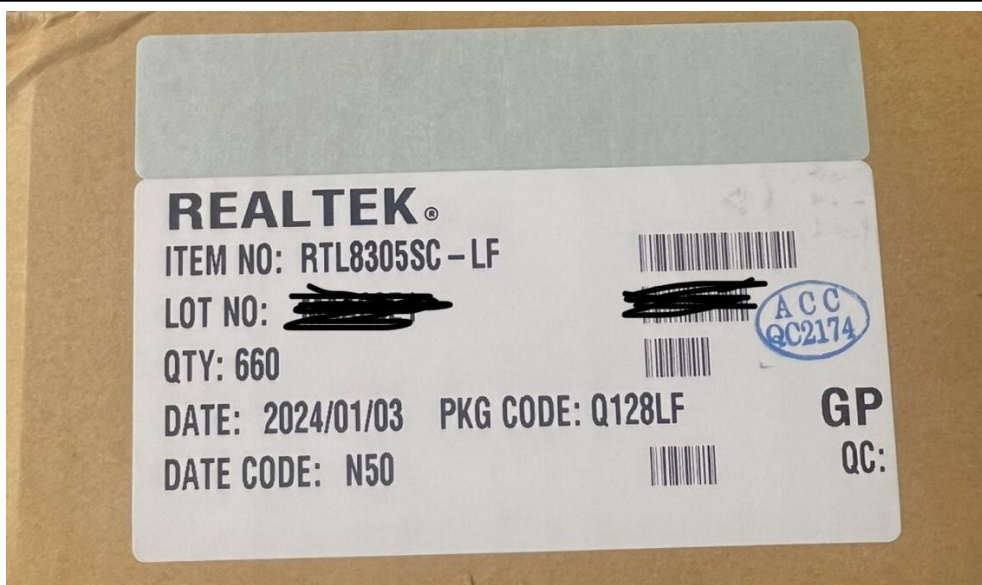
- **Packaging or label inspection of the samples are as follows:**

Labels are clear, no alterations, label information checks out; typed versions, typography, etc. conform to original factory characteristics.



Arrival picture

Fig1



Arrival label

Fig2

1.2 Surface Analysis

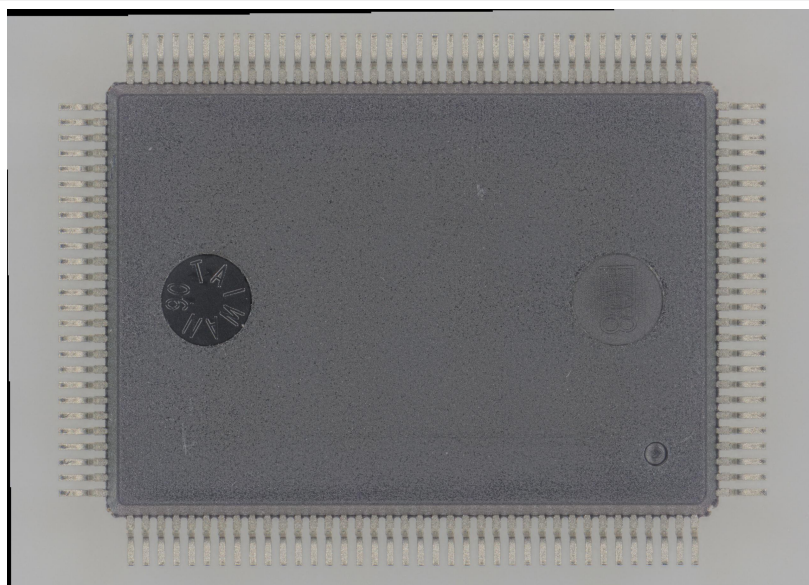
- The comparison specifications for the sampled samples show the following results:

Marking , typing version, typesetting and other comparison is consistent, chip packaging is not abnormal.



Top view

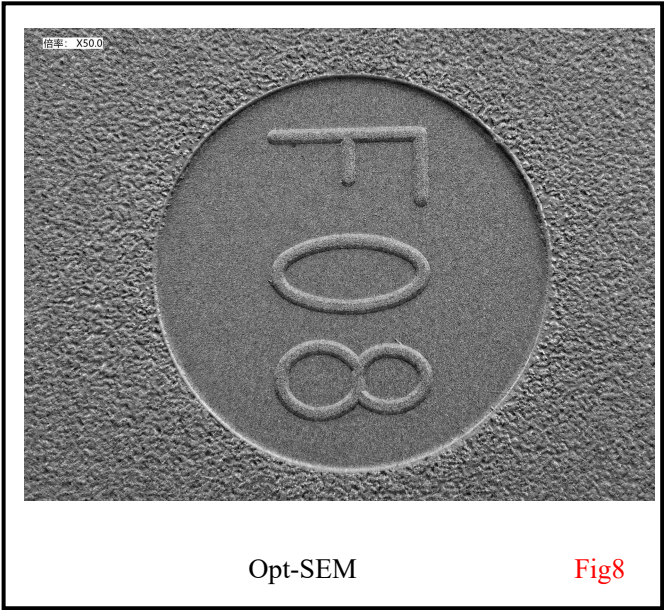
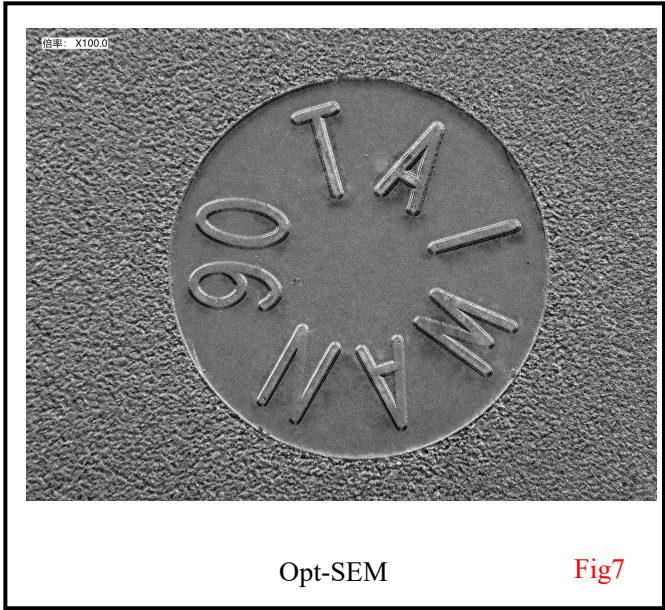
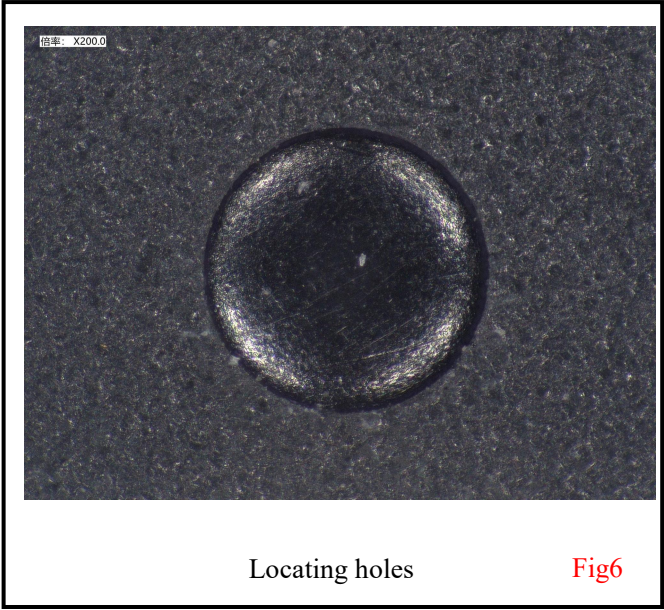
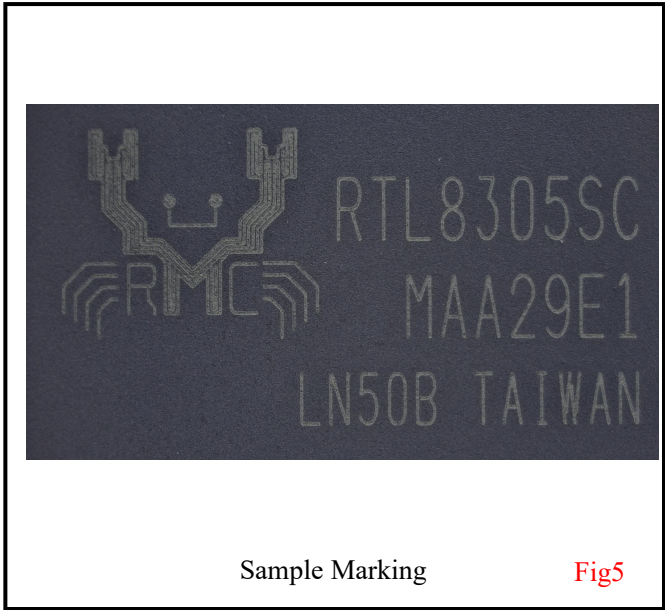
Fig3



Bottom view

Fig4

The marking on the surface of the sample is clear, the granularity is obvious, the shape of the marking is regular, and there is no trace of secondary polishing;



1.3 Pin Plating Analysis

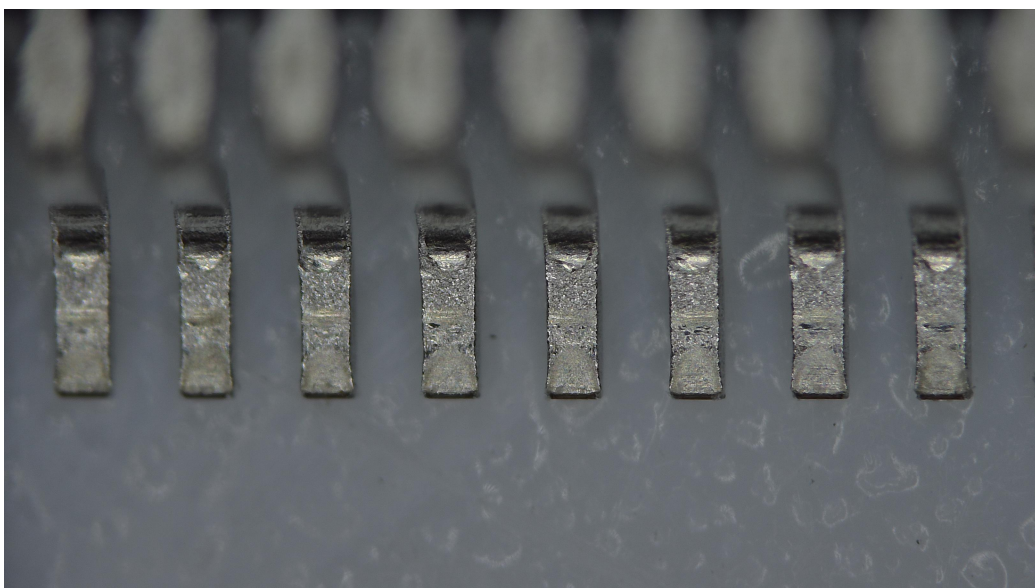
• Analysis of the sampled samples for inspection of the pin coating showed the following results:

The tin on the pin is uniform without abnormal, the cross-section of the exposed copper substrate is a normal phenomenon, there is no obvious sanding characteristics, the overall condition is good.



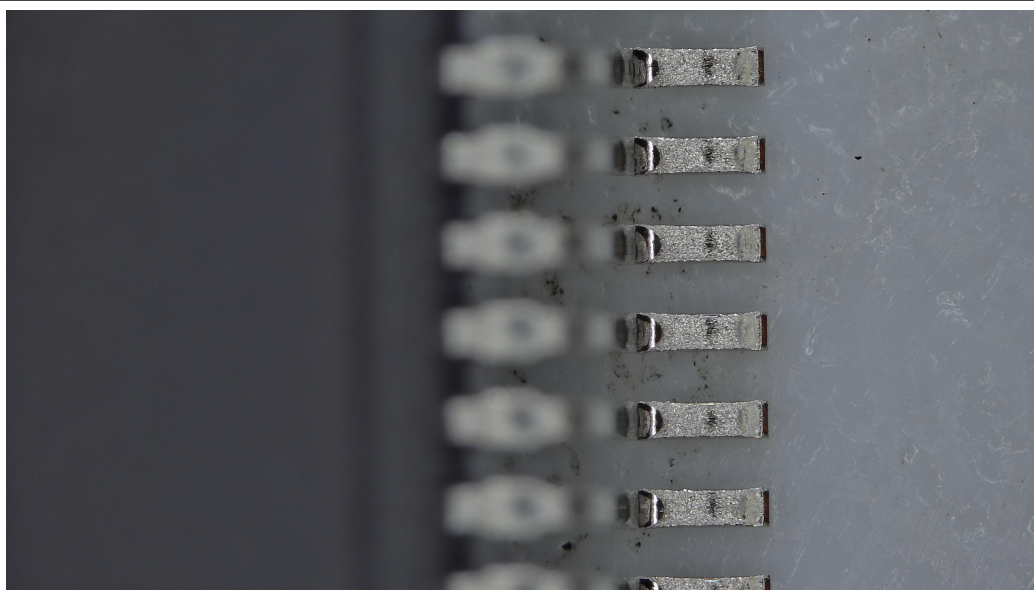
Top view

Fig9



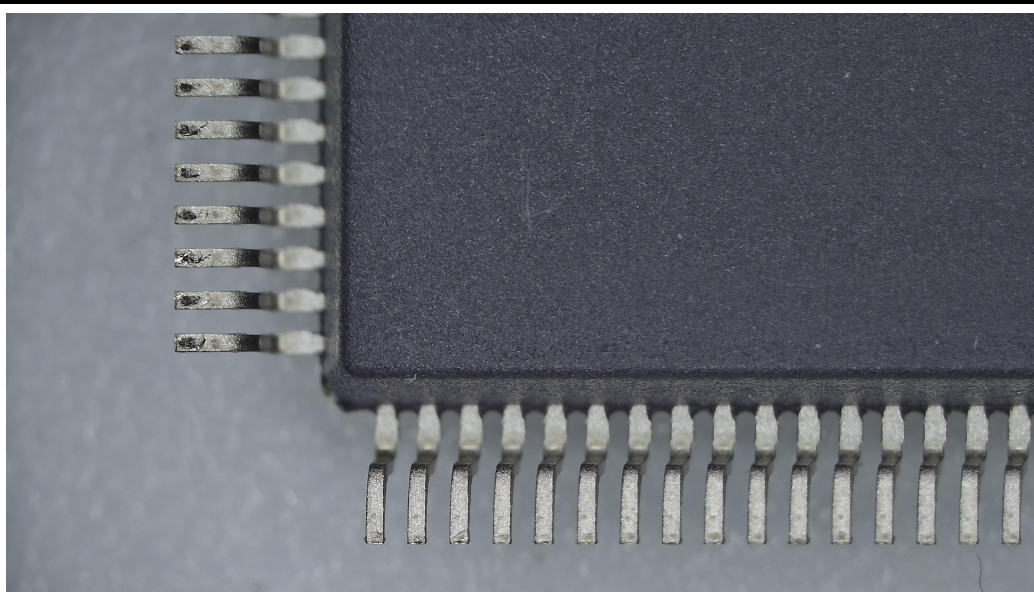
Top view

Fig10



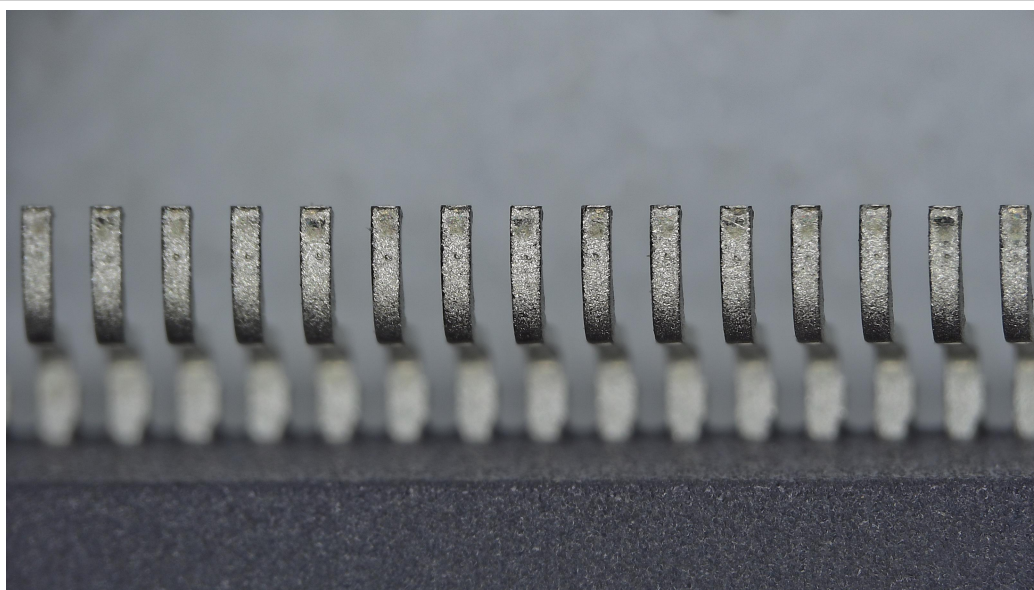
Top view

Fig11



Bottom view

Fig12



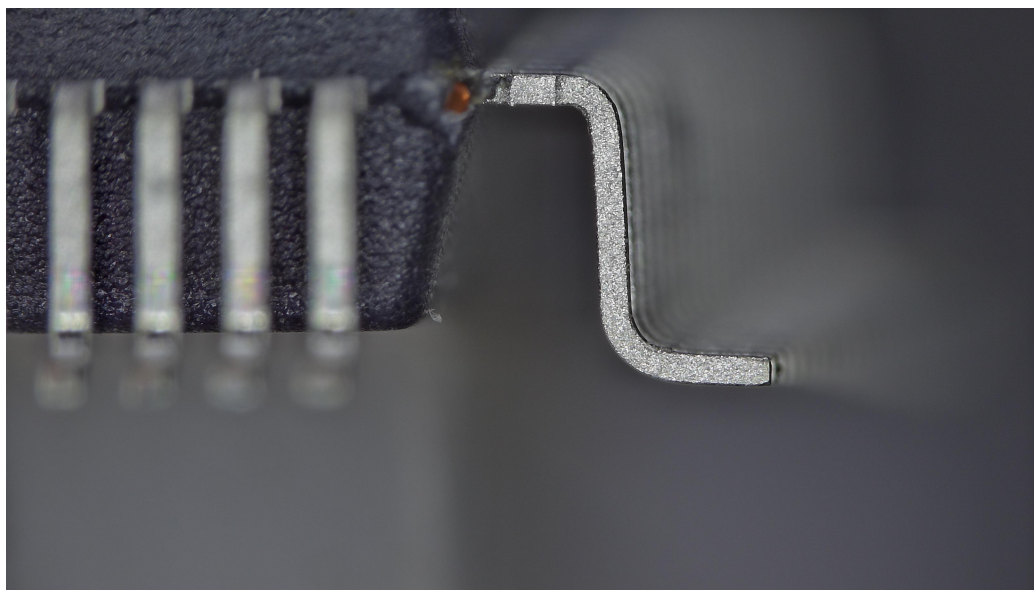
Bottom view

Fig13



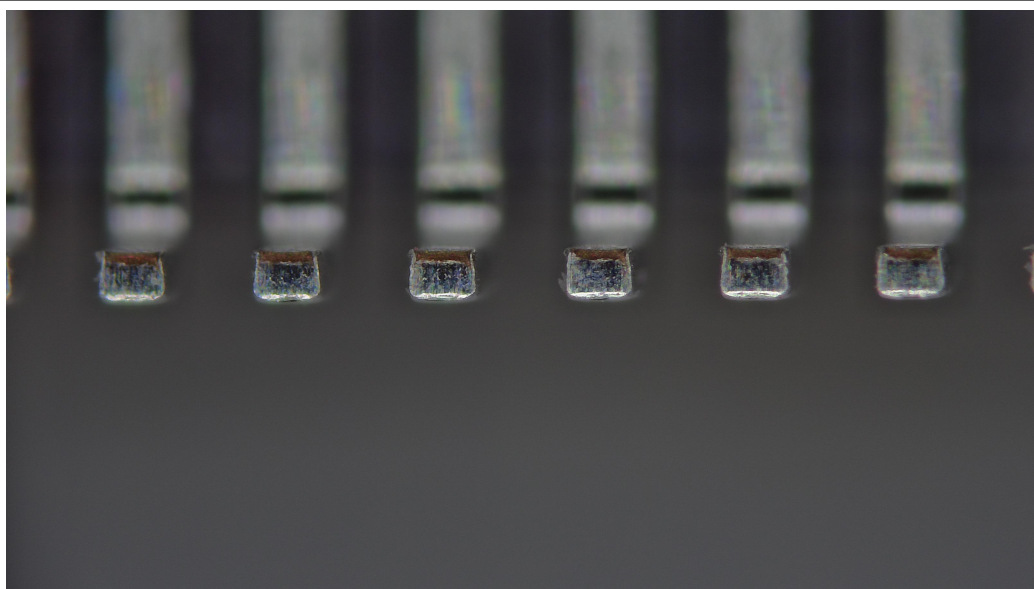
Bottom view

Fig14



Side view

Fig15

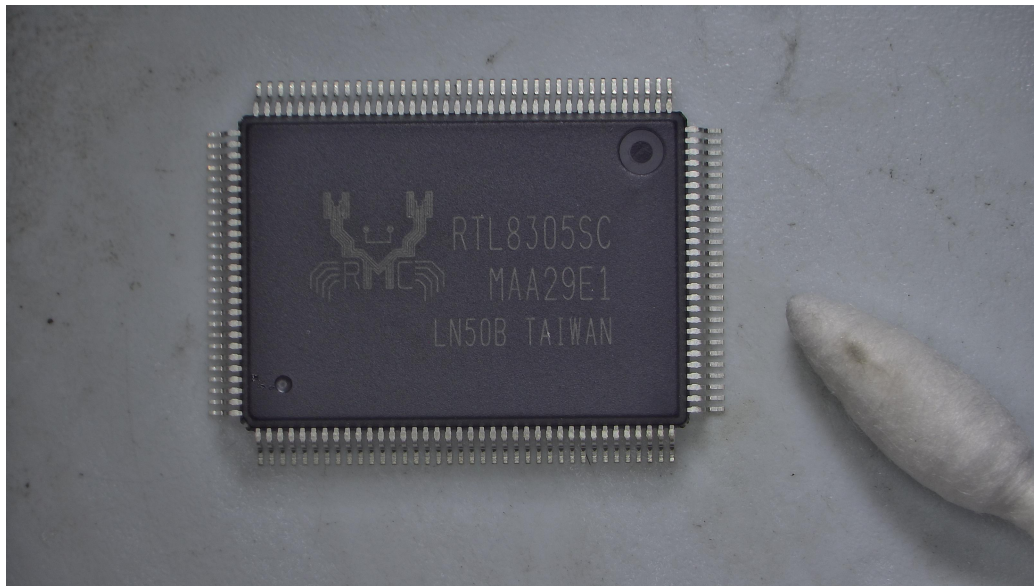


Pin Cross-section

Fig16

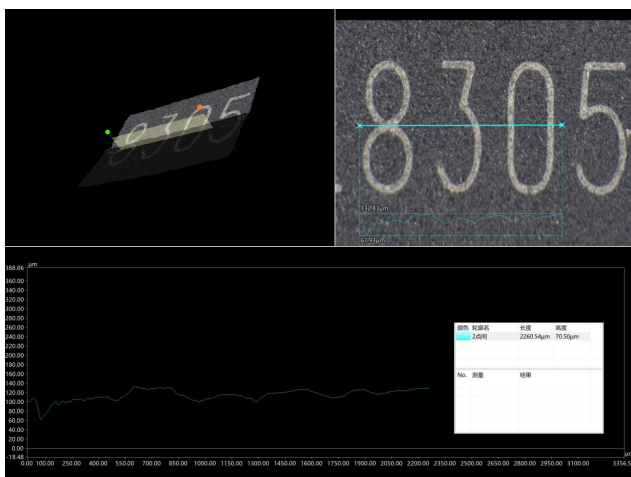
1.4 Aceton Inspection

After the surface and side of the sample were wiped back and forth with acetone for 3 times, the mark was still clearly visible, there was no obvious secondary coating, the depth of the mark did not change significantly under the EMS(Electron Microscope Scan),and the cotton swab was not blackened and other abnormal phenomena.



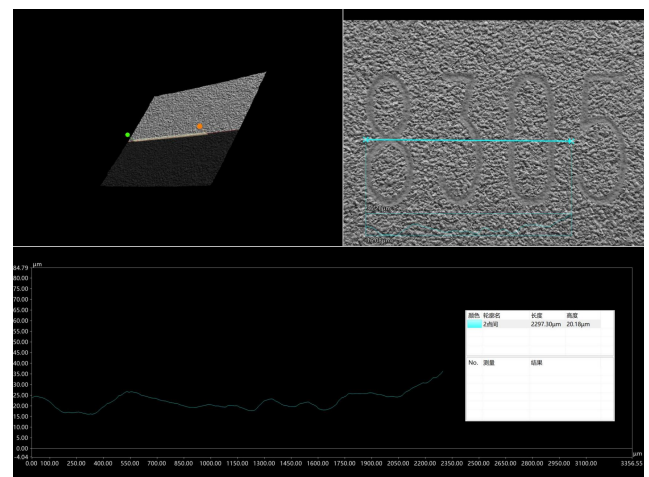
Acetone Test

Fig17



#1 Electron Microscope Scan

Fig18



#2 Electron Microscope Scan

Fig19

1.5 Dimension Measurement

- All size of the samples meet the requirement of the specifications.



Length: 19.84mm

Fig20



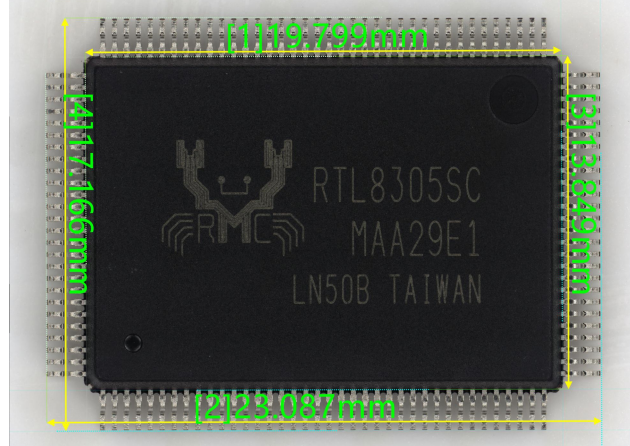
Width: 13.85mm

Fig21



Thicknesses: 2.74mm

Fig22



Electronic Measurement

Fig23

Measurement data:

Sample number	Length/mm	Width/mm	Thicknesses/mm	Result
#1	19.80	13.85	2.74	PASS
#2	19.84	13.85	2.74	PASS
#3	19.92	13.85	2.74	PASS
#4	19.86	13.85	2.75	PASS
#5	19.87	13.86	2.74	PASS

Data Sheet Reference Dimensions

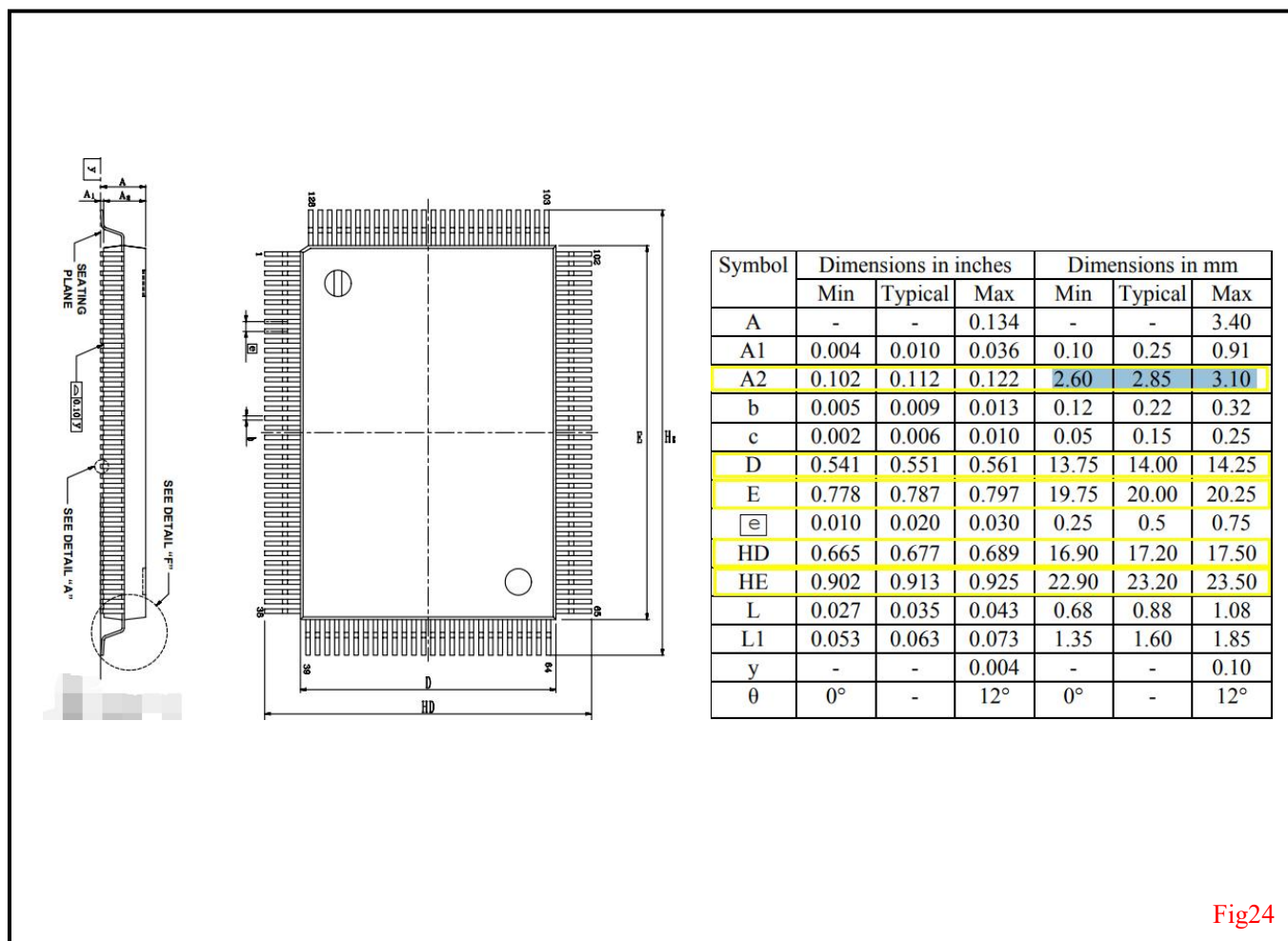
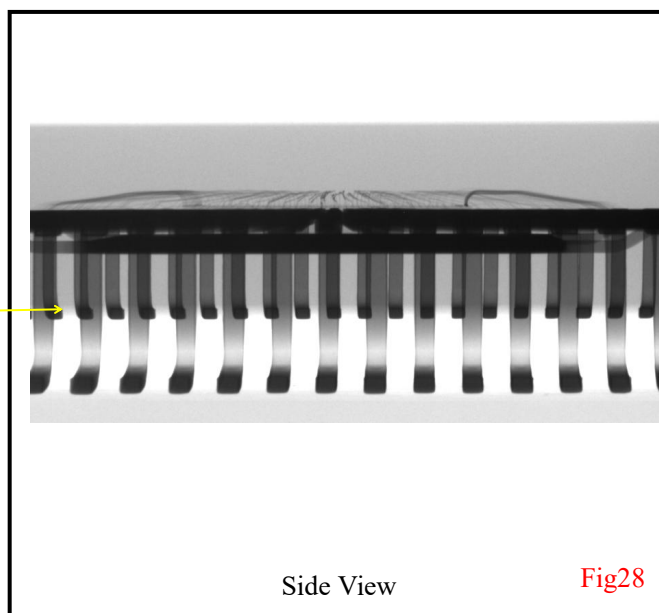
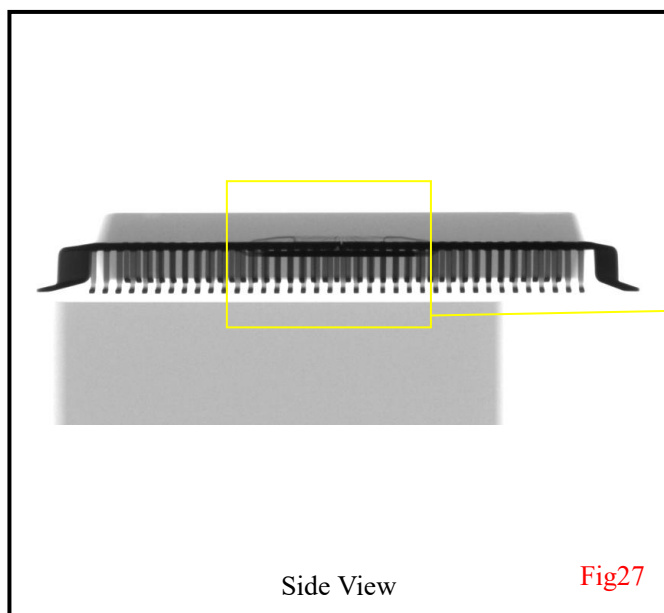
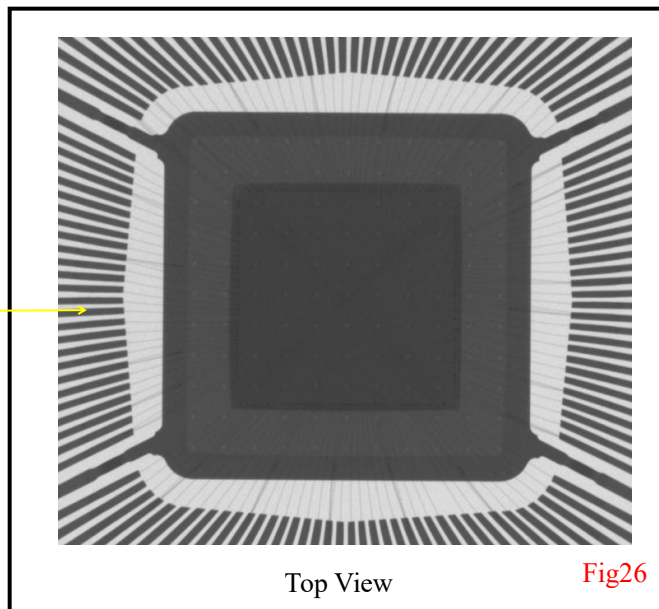
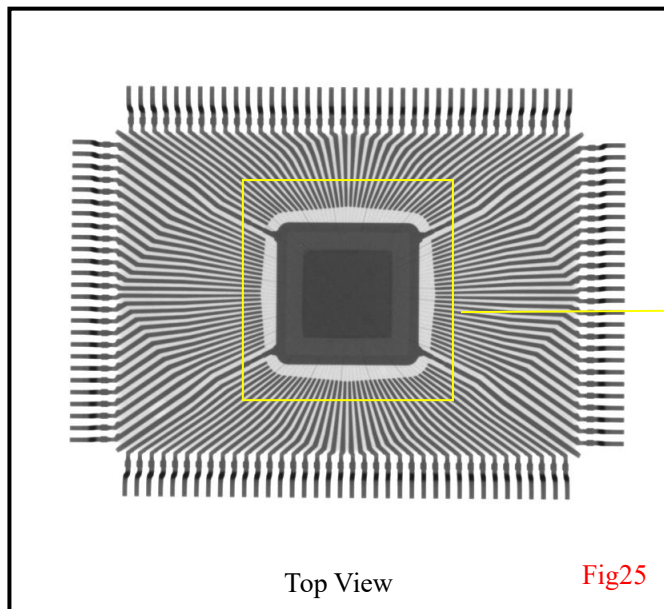
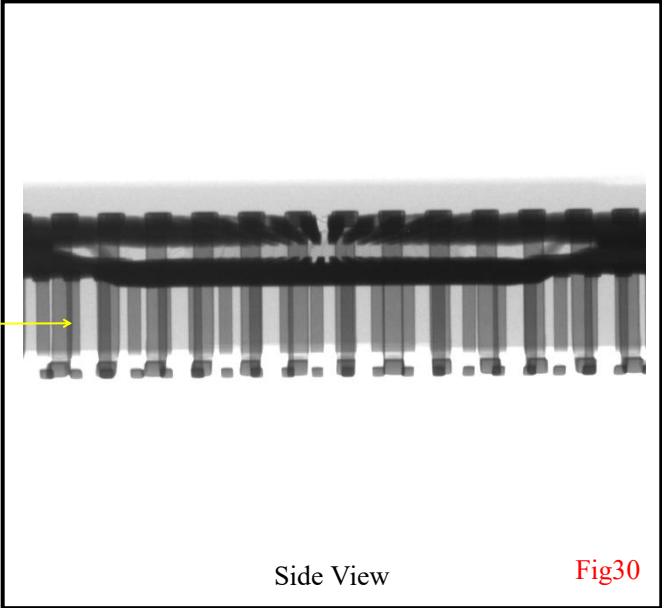
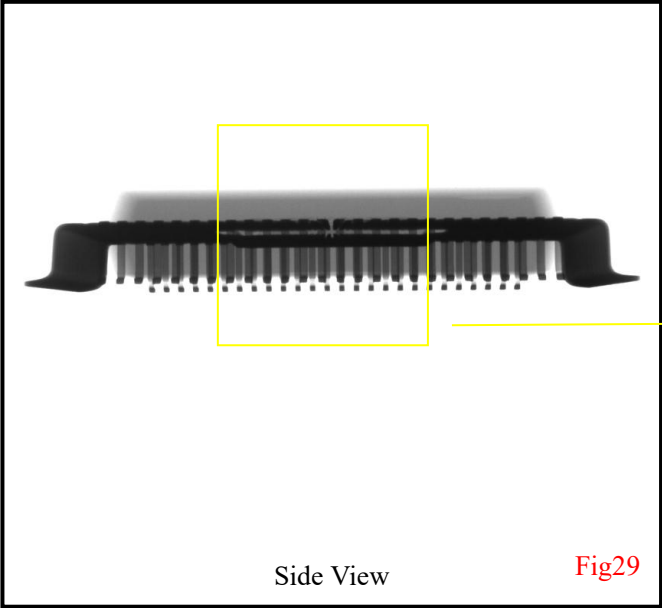


Fig24

2.X-Ray Inspection

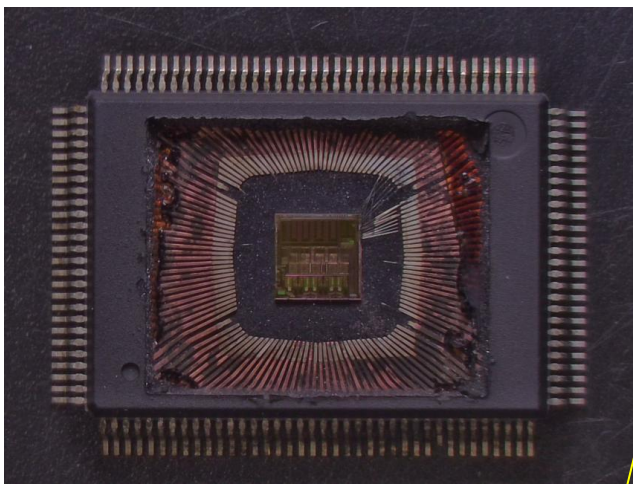
- X-RAY: Test does not reveal any abnormal inside the chips





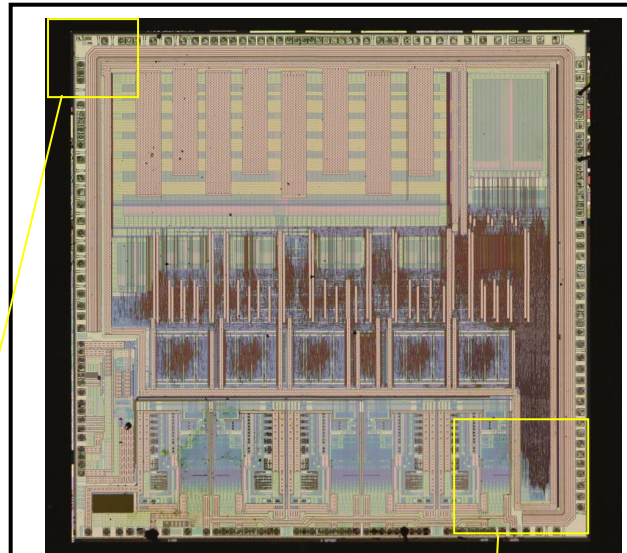
3.De-cap Die Analysis

• De-cap die analysis according to the standard , After opening the die, it was found that the internal structure was complete , The inside of the wafer displays information such as "RL5982" and "P75A" , It is judged to be made by the original factory.



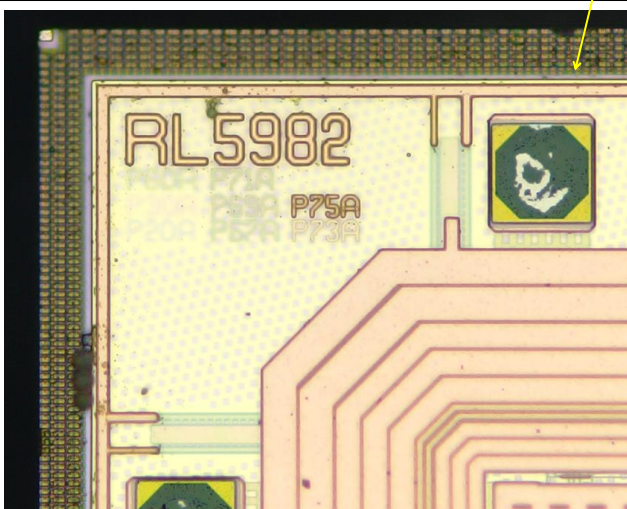
Die topography

Fig31



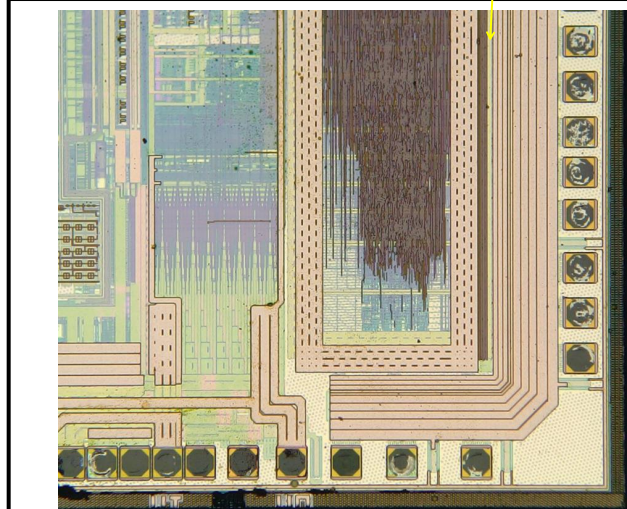
Die architecture

Fig32



Wafer

Fig33



Wafer

Fig34

4.List of Test Equipments

NO.	Inspection Item	Type of Equipment	Proofreading Period
1	Video microscope	SWG-N714	2024.07.28~2025.07.27
2	X-Ray	ZM-X5600	2024.12.04~2025.12.03
3	Digital Caliper	Mitutoyo 0-150mm	2025.01.08~2026.01.07
4	3D microscope	VHX-7000	2024.11.03~2025.11.02
5	Tin furnace	QUICK100-15S	2024.08.20~2025.08.19
6	Chemical unpacker	RKD motor-Lithium etching7000	2024.06.21~2025.06.20
Operation Environment		Temperature:15°C~35°C,humidity:30%~60%RH	