

Iac-MRA Add: F/r 401Building A, Ying Da Feng industrial No,393, Jihua Rd. LongGang Report No: SZ09062021001 Date: 2021/09/06 Email: engineer@iclab-cn.com Page: 1/22

IEC

# **Project Inspection Report**

Company	:	<u>NA</u>
Address	:	NA
Sample Name	:	ADXL357BEZ-RL7
Manufacture	:	ADI
Date Code	:	<u>2108,2106,2113</u>
Package Type	:	CLCC14
Sample Number	:	2500 PCS
Check Number	:	<u>122 PCS</u>
Date of Received	:	08/30/2021
Date of Tested	:	<u>10:30/08/31/2021 ~ 17:10/09/02/2021</u>

Dis. Shenzhen China

Tel: 0755-83765367

#### WE HEREBY CERTIFY THAT:

The test(s) shown in the attachment were conducted according to the indicating procedures. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all personnel performing them.

Inspected by Engineer	<b>Reviewed by Project Manager</b>
Cherry	Felix

#### Note:

- 1. This report will be invalid if reproduced in whole or in part.
- 2. This report refers only to the specimen(s) submitted to test, and is invalid if used separately.
- 3. This report is only valid with the examination seal and signature of this institute.
- 4. The tested specimen(s) will only be preserved for thirty days from the date issued, if not collected by the applicant.
- 5. This report is only responsible for the samples tested.



Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



### Items test

- External visual inspection
- □ Pin Correlation Test
- □ Programming test
- □ Solder ability Analysis
- ☑ Radiography (X-ray)
- ☑ ROHS test
- □ Key Functional Testing (KFT)
- □ Baking
- $\Box$  Tape and Reel
- $\blacksquare$  Internal visual inspection
- $\Box$  Top permanency test
- Heated Chemical Test

# **Methods & Equipment**

#### 1.1 Applicable Standard

• AS6081

#### **1.2 Optical Microscope**

 Equipment Spec: Top view: FINIAL Hi-scope System SEZ-260: X7 ~ X45 FJ-3A: X50-X500

#### 1.3 Digital Caliper

 Equipment Spec: MASTERPROOF : Standard Digital Caliper 0-150mm

#### 1.4Radiography (X-ray)

• Equipment Spec: Hardware:XiDAT Dage XD6500 Software:11.56-DD6058 Magnification in excess of 2800x Resolution below 2um Energy:80KV/40uA



Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



#### 1.5 ROHS test

• Equipment Spec: ICP-OES

#### **1.6 Testing Environment**

- Ambient Temperature:  $25\pm5^{\circ}C$
- Relative Humidity: 45%-65% RH

#### 1.7 Testing Base

• [ADI ADXL357BEZ-RL7] https://www.analog.com/media/en/technical-documentation/data-sheets/ADXL356-357.pdf

# Analysis Summary

# **External Visual Inspection:**

Applicable Standard: AS6081

External Visual Inspection on 122 PCS(B1 to B41,C-1 to C-41,D1 to D40) samples. No secondary coating, sanding marks, crack or chips were observed on all inspected. Leads were in acceptable condition. Devices package and dimension matched to manufacturer's specification. All devices passed the external visual inspection.

Specification dimension: L: 5.85-6.25 MM W: 5.85-6.25 MM H: 2.20 REF MM Measurement dimension: L: 6.00 MM W: 6.02 MM H: 2.27 MM



Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



# X-ray Analysis:

### Applicable Standard: AS6081

X-ray Inspection 49 PCS(B1 to B16,C-1 to C-16,D1toD17)samples . No structure or bonding wire abnormal was found.

# **ROHS** Testing:

### Applicable Standard: AS6081

ROHS testing on 3 PCS samples. Cd (PPM), Hg(ppm) and Pb (ppm) tests comply with ROHS standards.

### **Heated Chemical Test:**

### Applicable Standard: AS6081

Heated Chemical Test were verified 3PCS (B1, C-1, D1) samples, all samples passed Heated Chemical Test.

### **Internal Visual Inspection:**

### Applicable Standard: AS6081

Internal Visual Inspection was verified on 3PCS (B1, C-1, D1) samples. 2 dies (Die1&Die2) were found. Die1: Manufacturer ADI marking were found with 2016 copyright year. Die marking XM357A were found on the die surface.

Die2: Manufacturer ADI marking were found with 2015 copyright year. Die marking XL355 were found on the die surface.

Summary: All samples show the same structures and marking and samples confirmed to be a ADI device.



Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



#### **External Visual Inspection Result: External Visual Criteria** Yes/No Result Mix-up No Pass **Top Scratches** No Pass **Bottom Scratches** No Pass Residues No Pass Indentation No Pass Contamination No Pass Cracks No Pass **Copper defect** No Pass Oxidization No Pass **Coplanarity** Yes Pass **Sanding Marks** No Pass **Secondary Coating** No Pass **Top permanency Test** N/A N/A



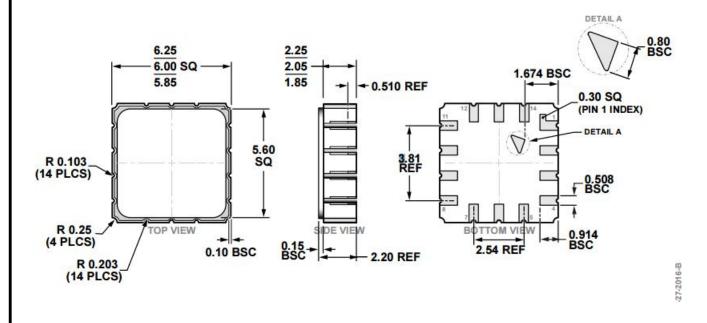
Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



### **1. Device Description:**

The analog output ADXL356 and the digital output ADXL357 are low noise density, low 0 g offset drift, low power, 3-axis accelerometers with selectable measurement ranges. The ADXL356B supports the  $\pm 10$  g and  $\pm 20$  g ranges, the ADXL356C supports the  $\pm 10$  g and  $\pm 40$  g ranges, and the ADXL357 supports the  $\pm 10$  g s,  $\pm 20$  g, and  $\pm 40$  g ranges.

# 2. Package Dimensions:





Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



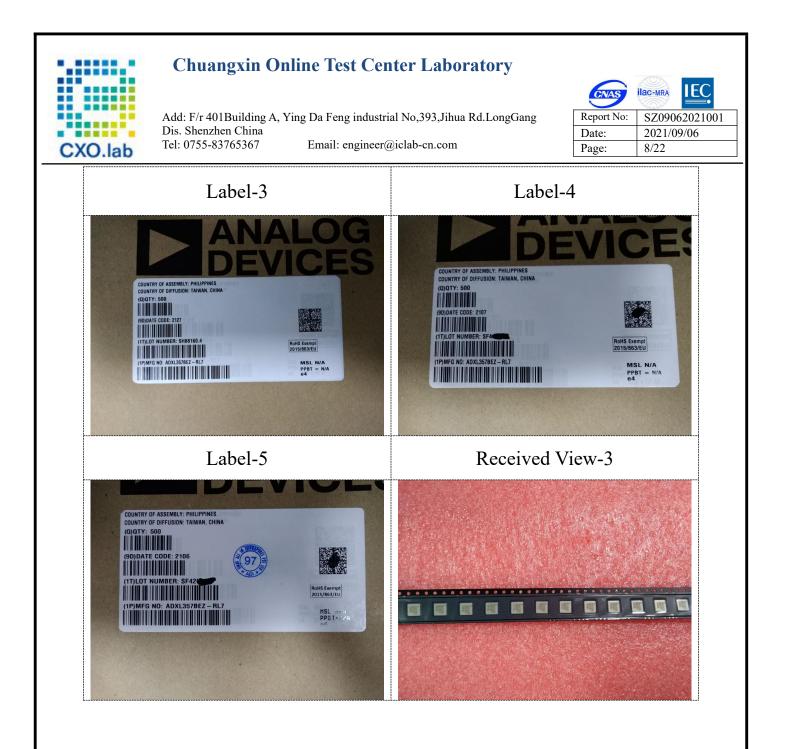
# **3. Receiving Inspection:**

Gross Weight	1036 g	Parts Total	2500 PCS	
Number Of Boxes	4	Full Label	Exist	
Package type	Reel	Moisture protection	Non Present	
MSL	N/A	ESD protection	Non Present	

Note: All devices contain 2500 PCS samples.

Test samples contain 41 PCS of D/C 2108(B1 to B41) , 41 PCS of D/C 2106(C-1 to C-41) and 40 PCS of D/C 2113(D1 to D40) .







Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com

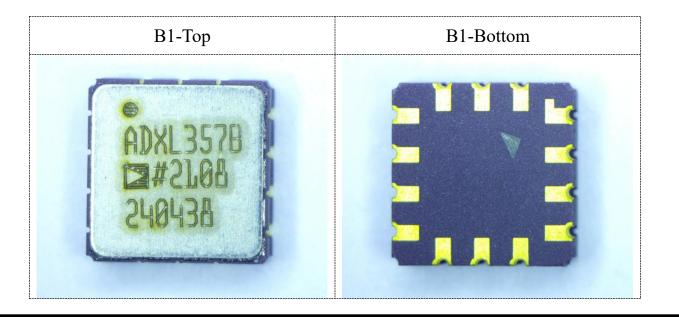


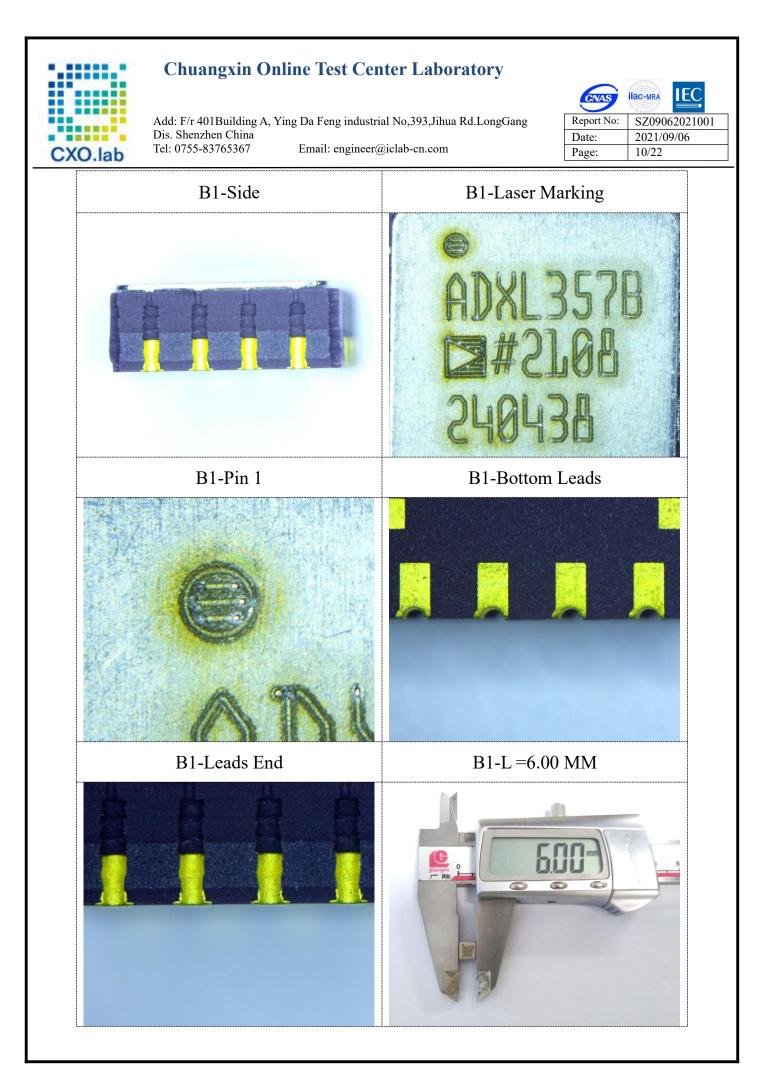
# 4. External Visual Inspection:

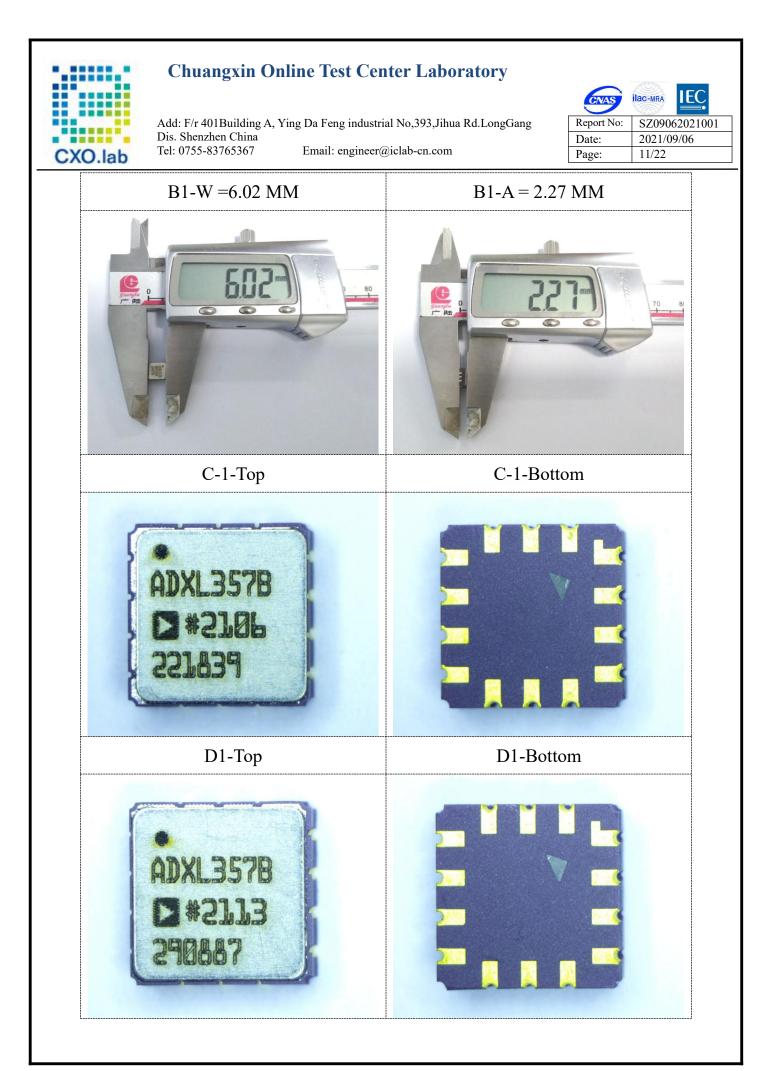
### Applicable Standard: AS6081

External Visual Inspection on 122 PCS(B1 to B41,C-1 to C-41,D1 to D40) samples. No secondary coating, sanding marks, crack or chips were observed on all inspected. Leads were in acceptable condition. Devices package and dimension matched to manufacturer's specification. All devices passed the external visual inspection.

Specification dimension: L: 5.85-6.25 MM W: 5.85-6.25 MM H: 2.20 REF MM Measurement dimension: L: 6.00 MM W: 6.02 MM H: 2.27 MM









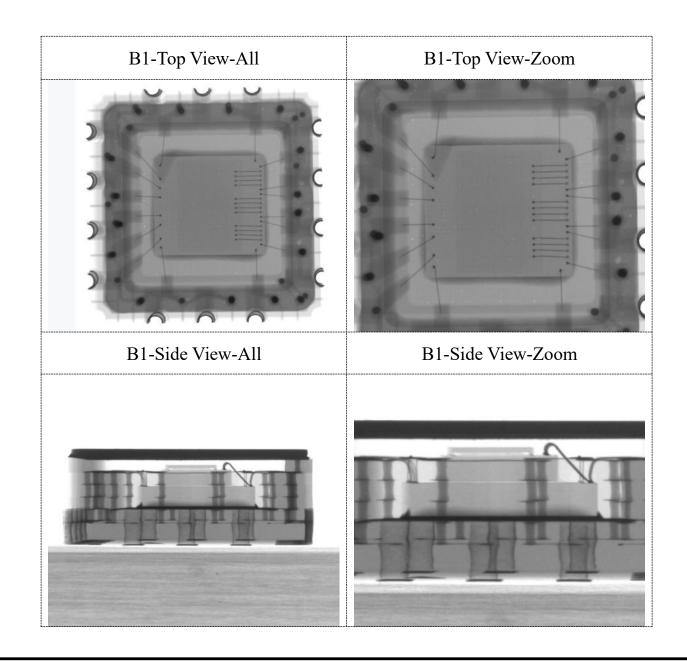
Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



# 5.X-ray Analysis:

### Applicable Standard: AS6081

X-ray Inspection 49 PCS(B1 to B16,C-1 to C-16,D1toD17)samples . No structure or bonding wire abnormal was found.





Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com

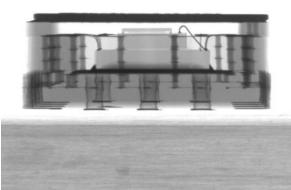


C-1-Top View-All

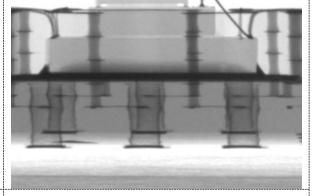
C-1-Top View-Zoom

V1ew-All

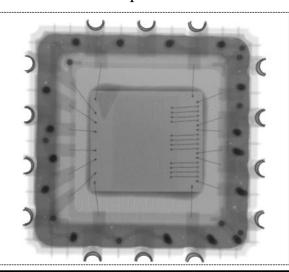
C-1-Side View-Zoom

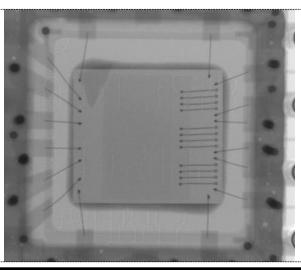


D1-Top View-All



D1-Top View-Zoom





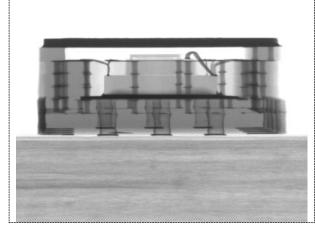


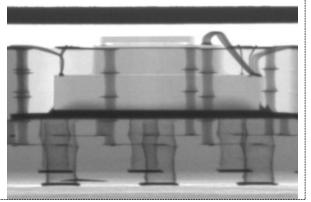
Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



D1-Side View-All

D1-Side View-Zoom







Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



# 6. ROHS Testing:

### Applicable Standard: AS6081

ROHS testing on 3 PCS samples. Cd (PPM), Hg(ppm) and Pb (ppm) tests comply with ROHS standards.

B1						
Element	Intensity	Content (ppm)	Equipment	Error (ppm)	Limits (ppm)	Result
Cd(ppm)	0	ND	ICP-OES	0.00	100	Pass
Hg(ppm)	0	ND	ICP-OES	0.00	1000	Pass
Pb(ppm)	0	ND	ICP-OES	0.00	1000	Pass
C-1						
Element	Intensity	Content (ppm)	Equipment	Error (ppm)	Limits (ppm)	Result
Cd(ppm)	0	ND	ICP-OES	0.00	100	Pass
Hg(ppm)	0	ND	ICP-OES	0.00	1000	Pass
Pb(ppm)	0.00015	768.47	ICP-OES	153.69	1000	Pass
D1						
Element	Intensity	Content (ppm)	Equipment	Error (ppm)	Limits (ppm)	Result
Cd(ppm)	0	ND	ICP-OES	0.00	100	Pass



Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com

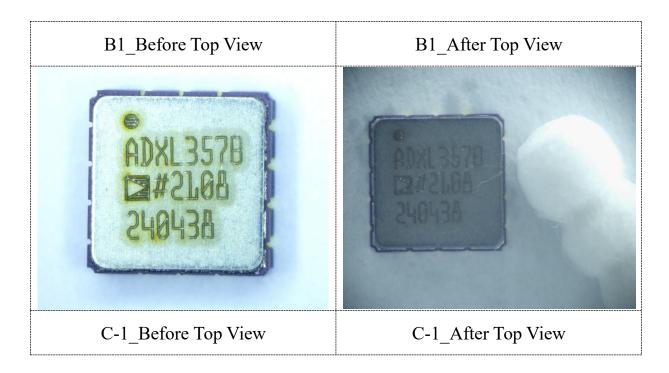


Hg(ppm)	0	ND	ICP-OES	0.00	1000	Pass
Pb(ppm)	0	ND	ICP-OES	0.00	1000	Pass

### 7.Heated Chemical Test:

### Applicable Standard: AS6081

Heated Chemical Test were verified 3PCS (B1, C-1, D1) samples, all samples passed Heated Chemical Test.





Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com IEC

SZ09062021001

2021/09/06

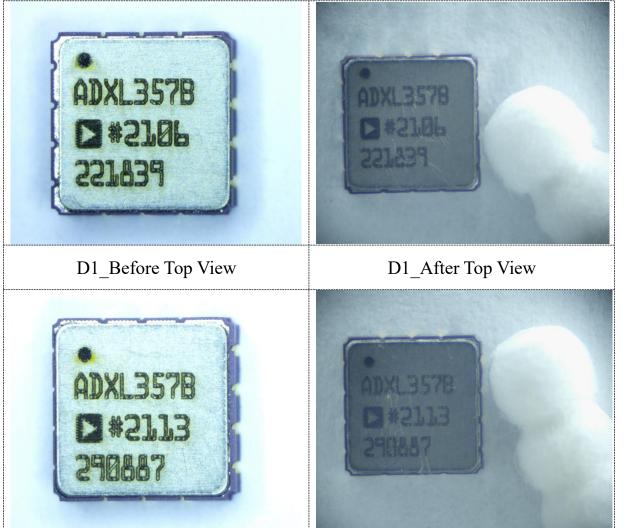
ilac-MRA

17/22

Report No:

Date:

Page:





Add: F/r 401Building A, Ying Da Feng industrial No,393,Jihua Rd.LongGang Dis. Shenzhen China Tel: 0755-83765367 Email: engineer@iclab-cn.com



# 8.Internal Visual Inspection:

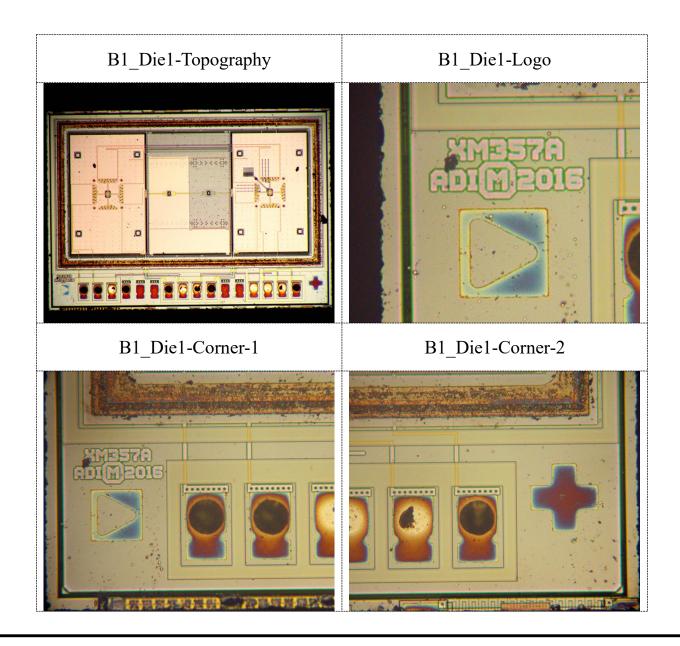
### Applicable Standard: AS6081

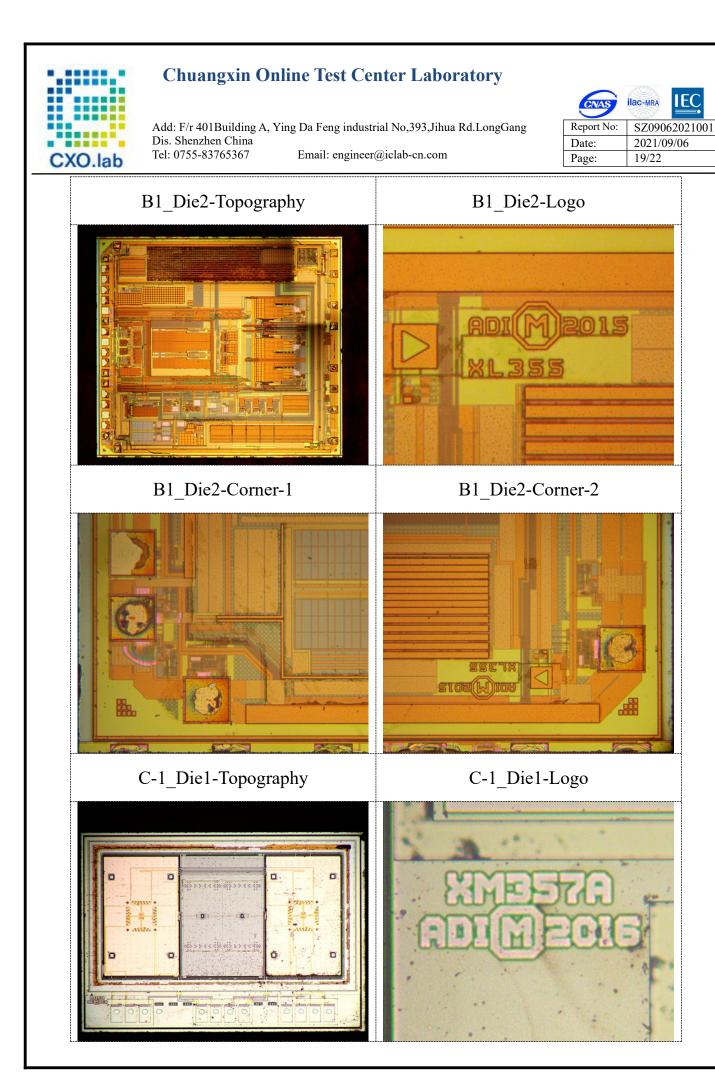
Internal Visual Inspection was verified on 3PCS (B1, C-1, D1) samples. 2 dies (Die1&Die2) were found.

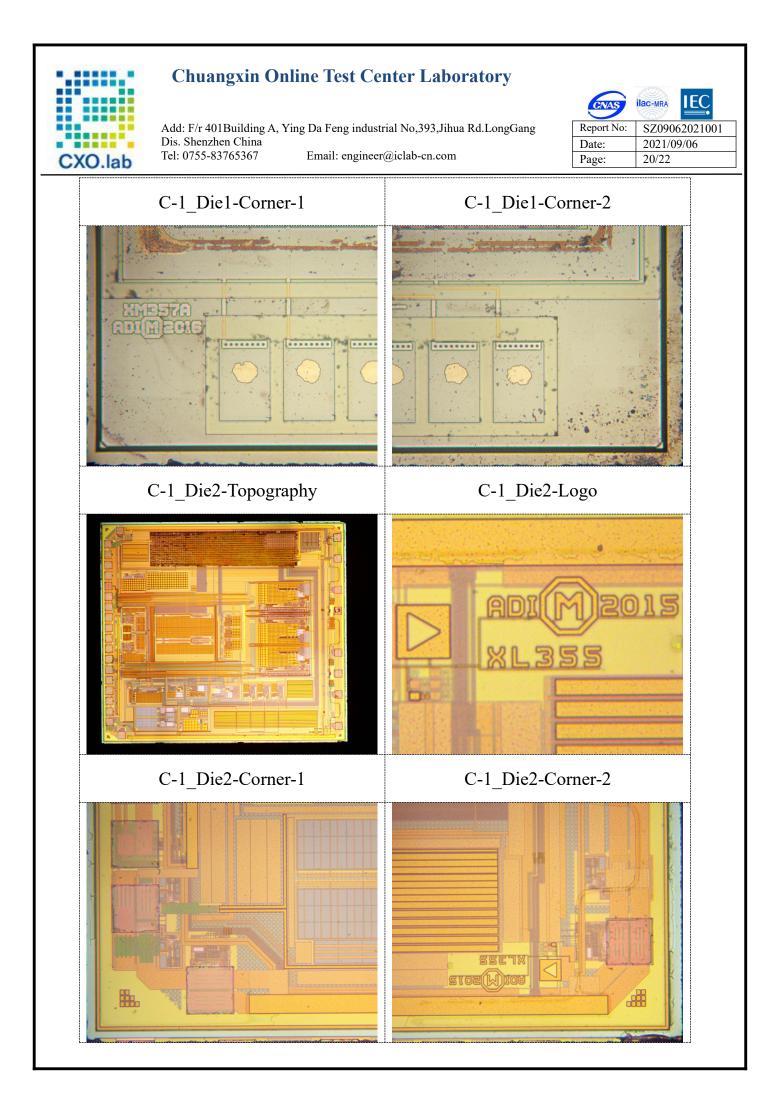
Die1: Manufacturer ADI marking were found with 2016 copyright year. Die marking XM357A were found on the die surface.

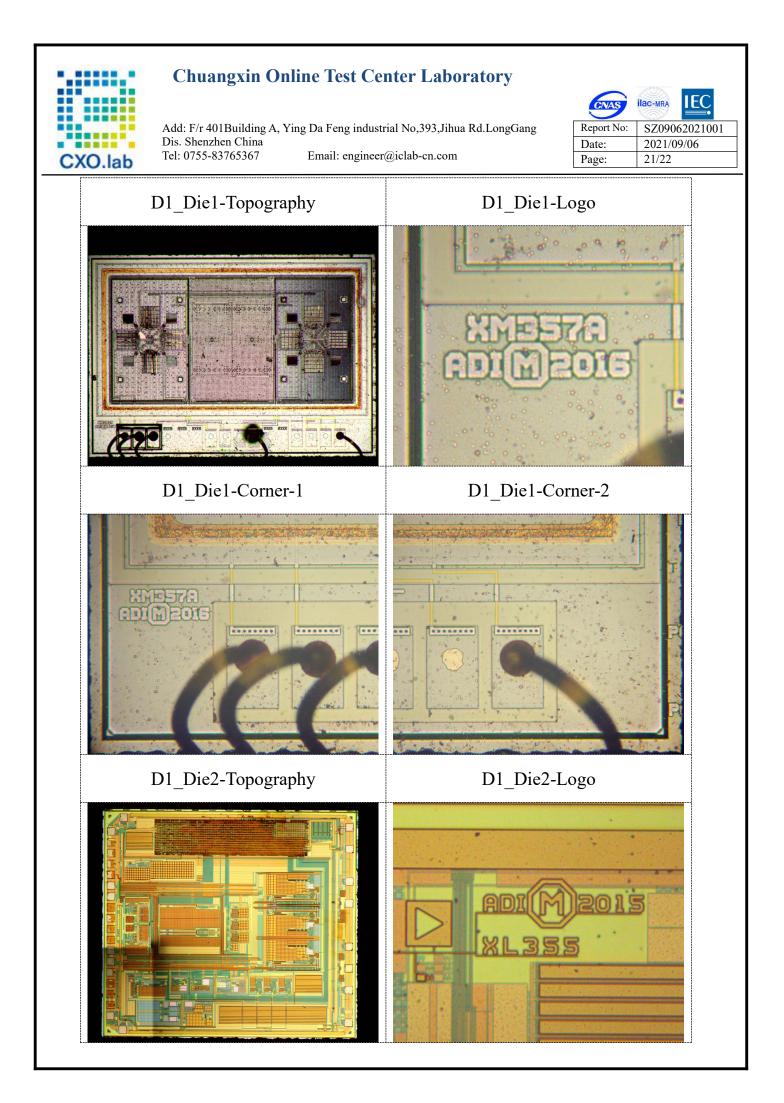
Die2: Manufacturer ADI marking were found with 2015 copyright year. Die marking XL355 were found on the die surface.

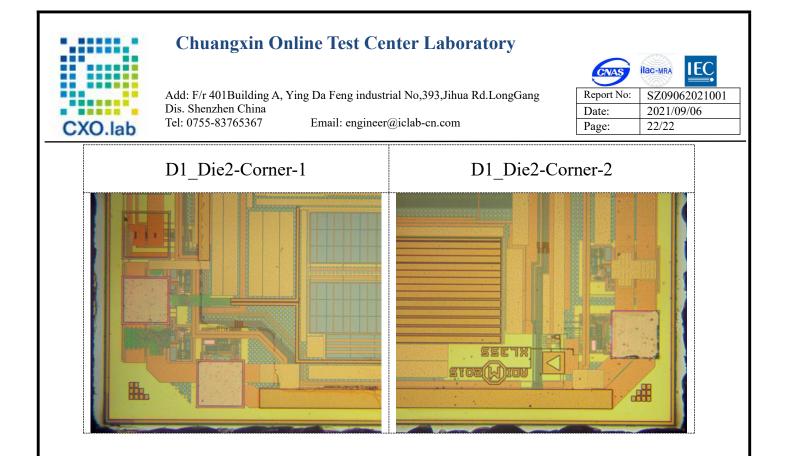
Summary: All samples show the same structures and marking and samples confirmed to be a ADI device.











### End

For more information, please visit: <u>http://www.iclabcn.com</u>

CXO Lab WeChat official account

