JANtronic GmbH

QC Report Sample:

Work Order No : QC01189/ **Sales Order No** :FCPI202503250028

Product Manufacturer :ADI/ **Manufacturer Part No** :LT8631EFE#TRPBF

IT:P Internal Lot No : WH/IN/00233-95389

Component Lot No :/

Component Lot Quantity : 2504

Date Code : 2207+

Country of Origin :Malaysia

External Visual Inspection on 100PCS sample marked with D/C 2207. No secondary coating, sanding marks, crack or chips were observed on all inspected.

Samples pass chemical MPT for remarking, indicating that the samples are not remarked.

10PCS sample X-ray analysis reveals consistent internal structure within the tested samples. The samples do not exhibit internal connection defects, voids or other apparent anomalies.

Inspection Report:

#	Packaging Inspection	Sample Size	Result
1	Verify product condition – any damage on product or packaging	2504	Pass
2	Verify package structural integrity	2500	Pass
3	Verify labels – any signs of tampering	/	Pass
4	Verify packaging ESD compliance	2504	Pass
5	Verify if humidity control package (dry pack) is in good condition	/	Pass

6	Verify condition of humidity sensitivity card	/	Pass
7	Verify consistency of inner and outer packaging label	2500	Pass
8	Verify tape leader and trailer for factory sealed tape and reel products	2504	Pass
9	Verify PIN#1 orientation with respect to specific packaging type	2504	Pass

#	Component Surface Inspection	Sample Size	Result
1	Inspect parts surfaces have not been mechanically, resurfaced, or re-stamped	100	Pass
2	Inspect for blacktopping, overspray, surface sanding or uneven thickness	100	Pass
3	Inspect for minor cracks on the surface of the parts	100	Pass
4	Check for ink marks, colored dots and sticker on components indicating previous programming	100	Pass
5	PIN#1 indicator is consistent within the lot	100	Pass
6	Inspect for any type of residue–dirt,debris,flux,foreign objects, glue, or stickers	100	Pass
7	Inspect for evidence of tool/pull marks or heat-sink witness marking	100	Pass

#	Marking Inspection	Sample Size	Result
1	All markings are clear	100	Pass
2	Verify if markings on top and bottom of parts are consistent throughout the entire lot–font color and size orientation	100	Pass
3	Verify if marking of part number,datecode,country of origin or lot number are consistent	100	Pass
4	Check for evidence of test dots or engineering sample	100	Pass

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#	Lead Inspection	Sample Size	Result
1	Verify any bent, damaged, or missing lead	100	Pass
2	Check lead alignment	100	Pass
3	Verify leads for scratches on outer in inner lead surfaces.	100	Pass
4	Inspect consistency of lead with respect to color, gloss/dull and texture	100	Pass
5	Inspect if leads exhibit any corrosion, discoloration, or oxidation	100	Pass
6	Inspect if leads have been used or trimmed	100	Pass

#	Acetone Test	Test Result
1	Rub part surface with cotton bud dipped in acetone solvent. Check for transfer of Black coating on cotton bud.	3 - PASS

#	Measurements and Pin Count	Test Result
1	Counting number of pins per part - Verify if number of pins on component matches manufacturer's specifications	TSSOP20

Sample	Length	Width	Height
1	6.55mm	6.40mm	1.04mm
2	6.55mm	6.40mm	1.04mm
3	6.55mm	6.40mm	1.04mm

Appendixes

Outer Packaging

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Outer Label 1

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Inner Packaging

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Inner Label

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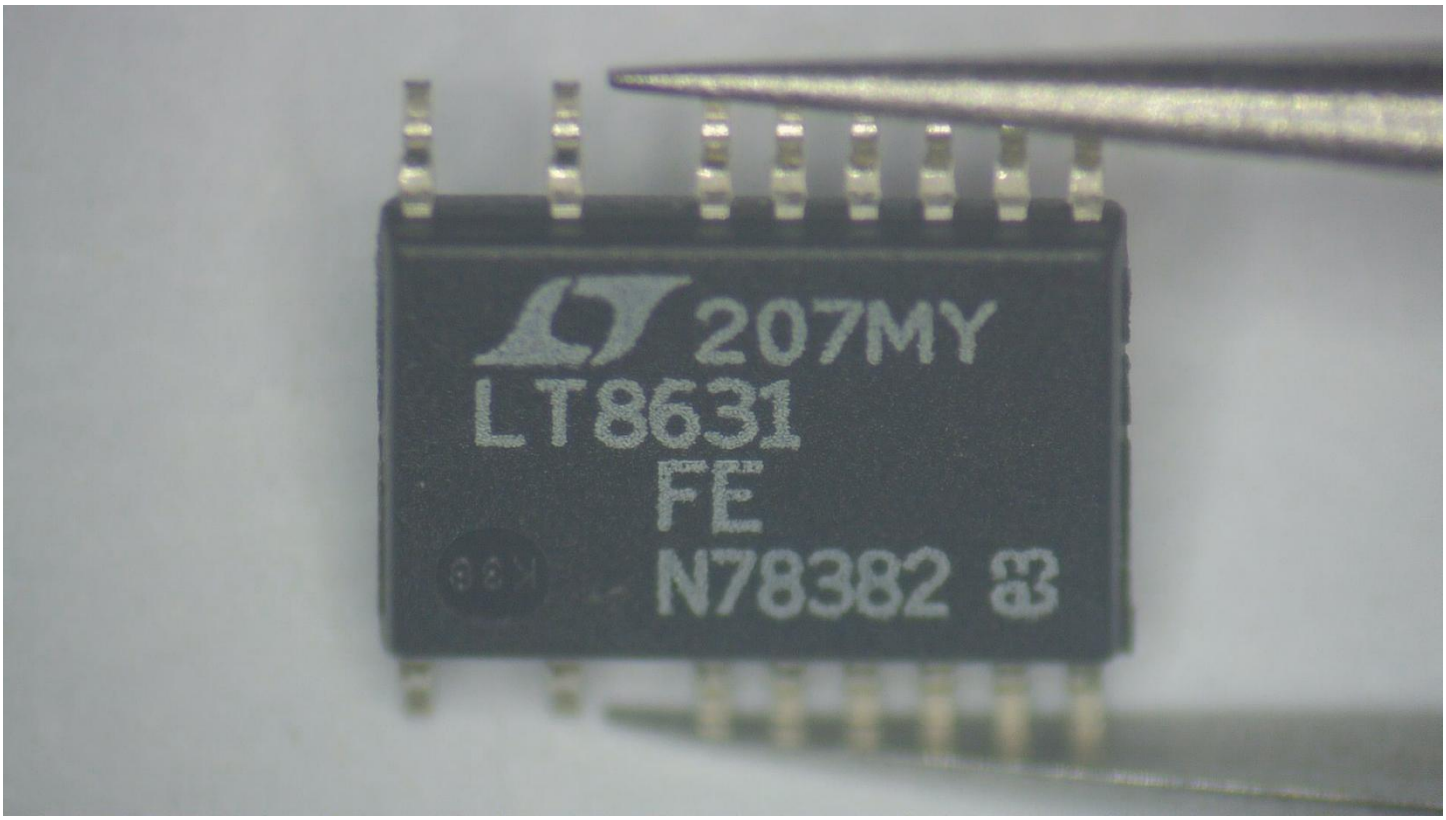

Top Marking(N78382)

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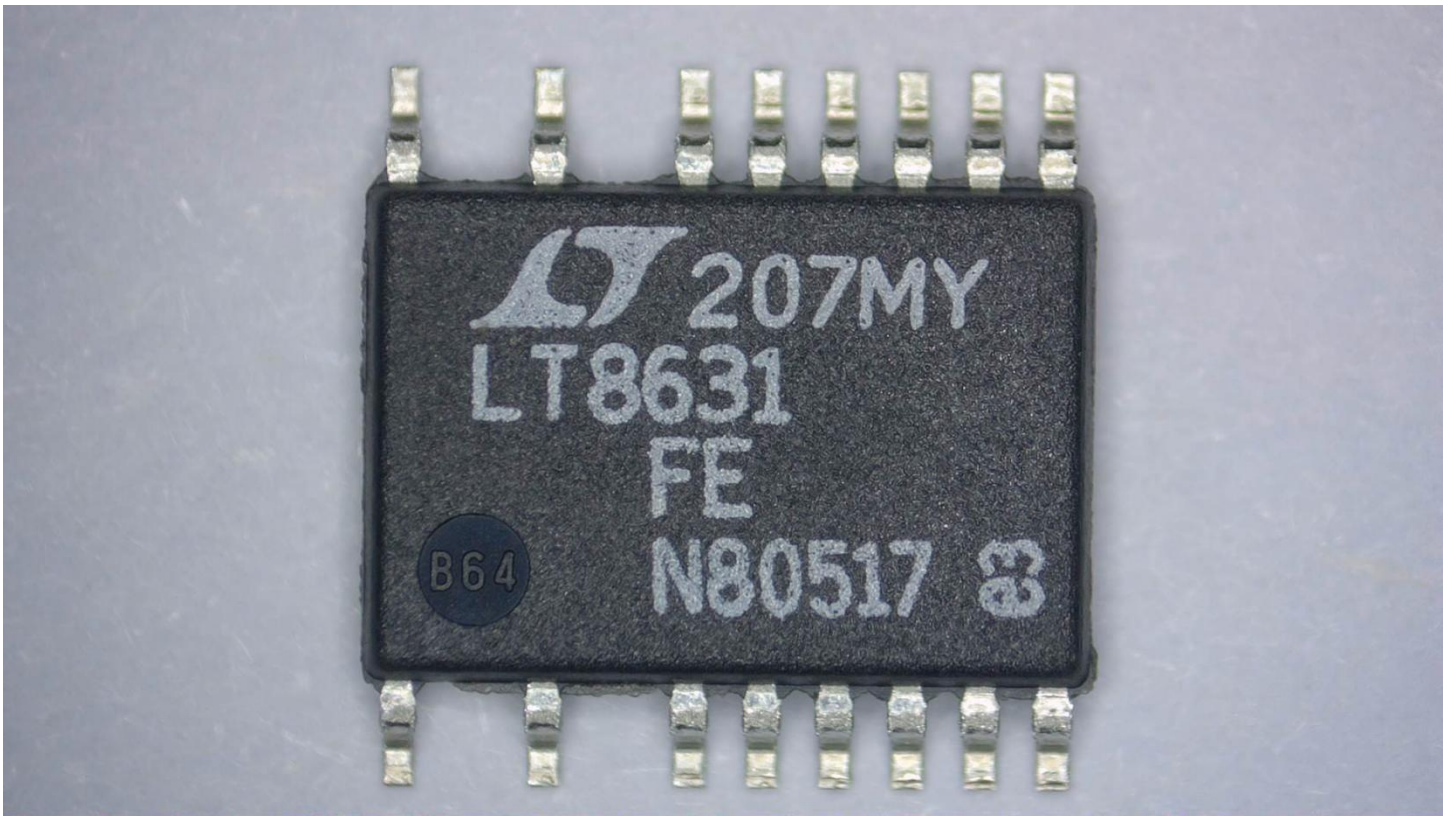

Top View

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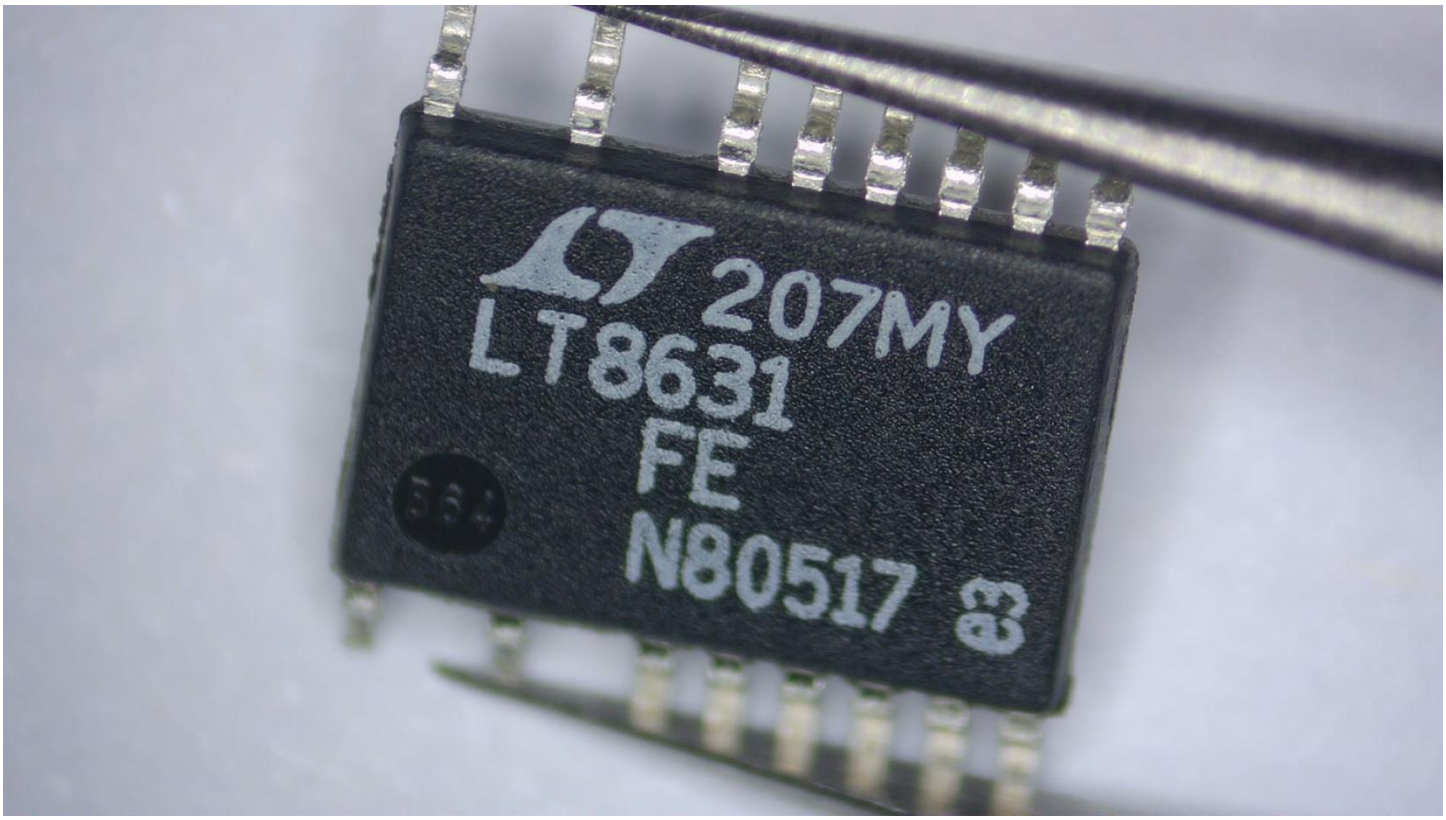

Top Marking (N80517)

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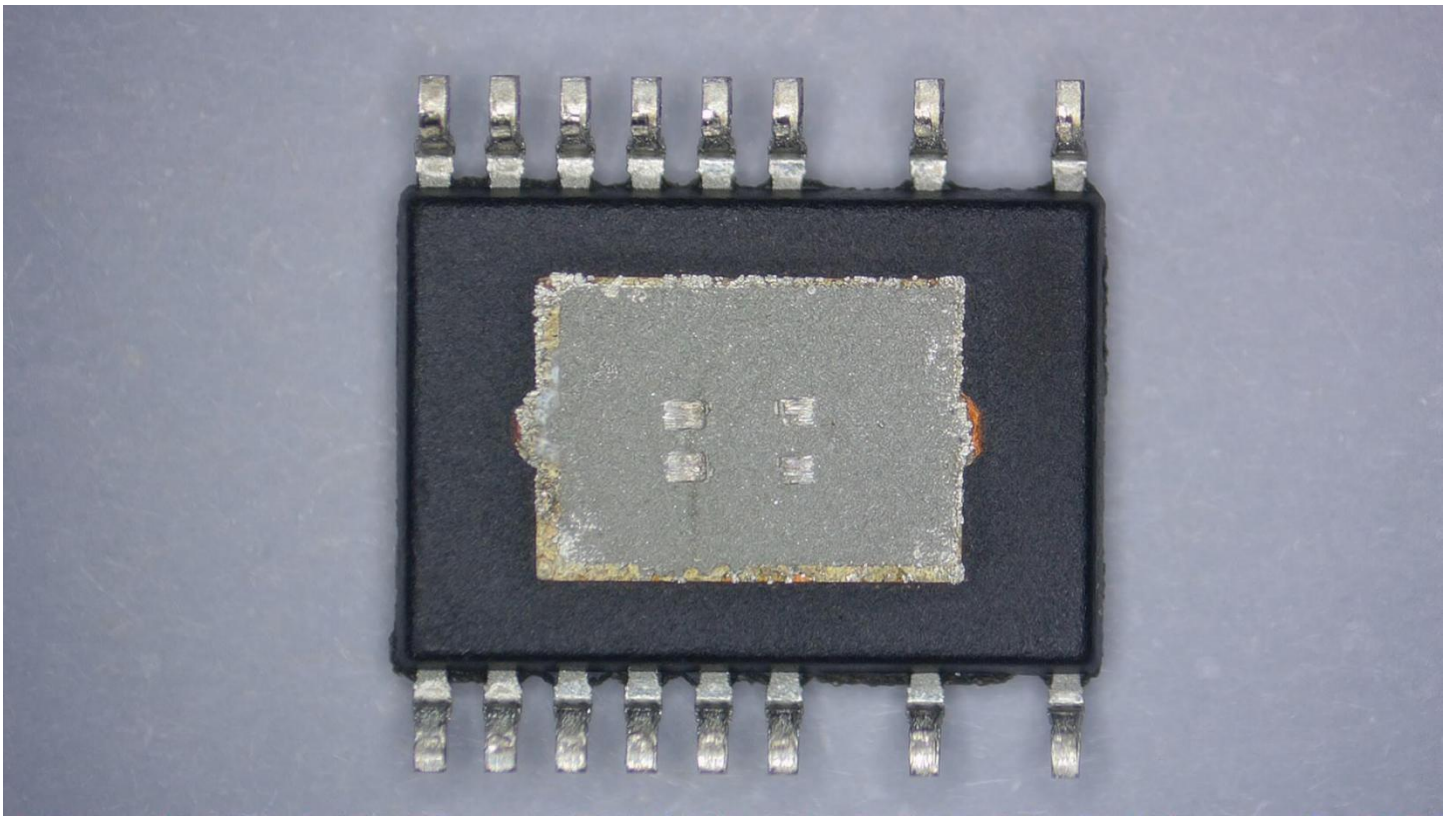

Bottom View

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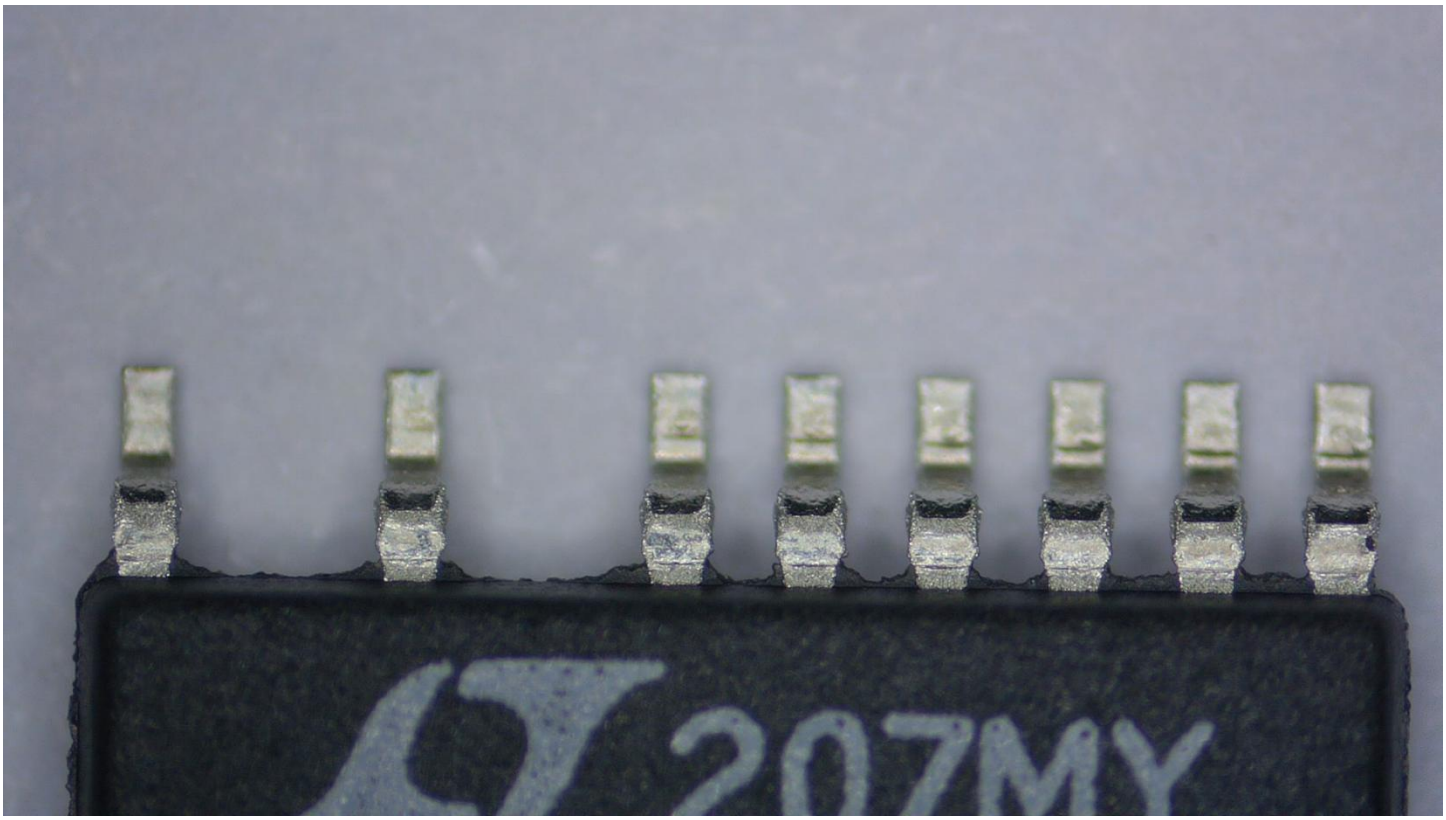
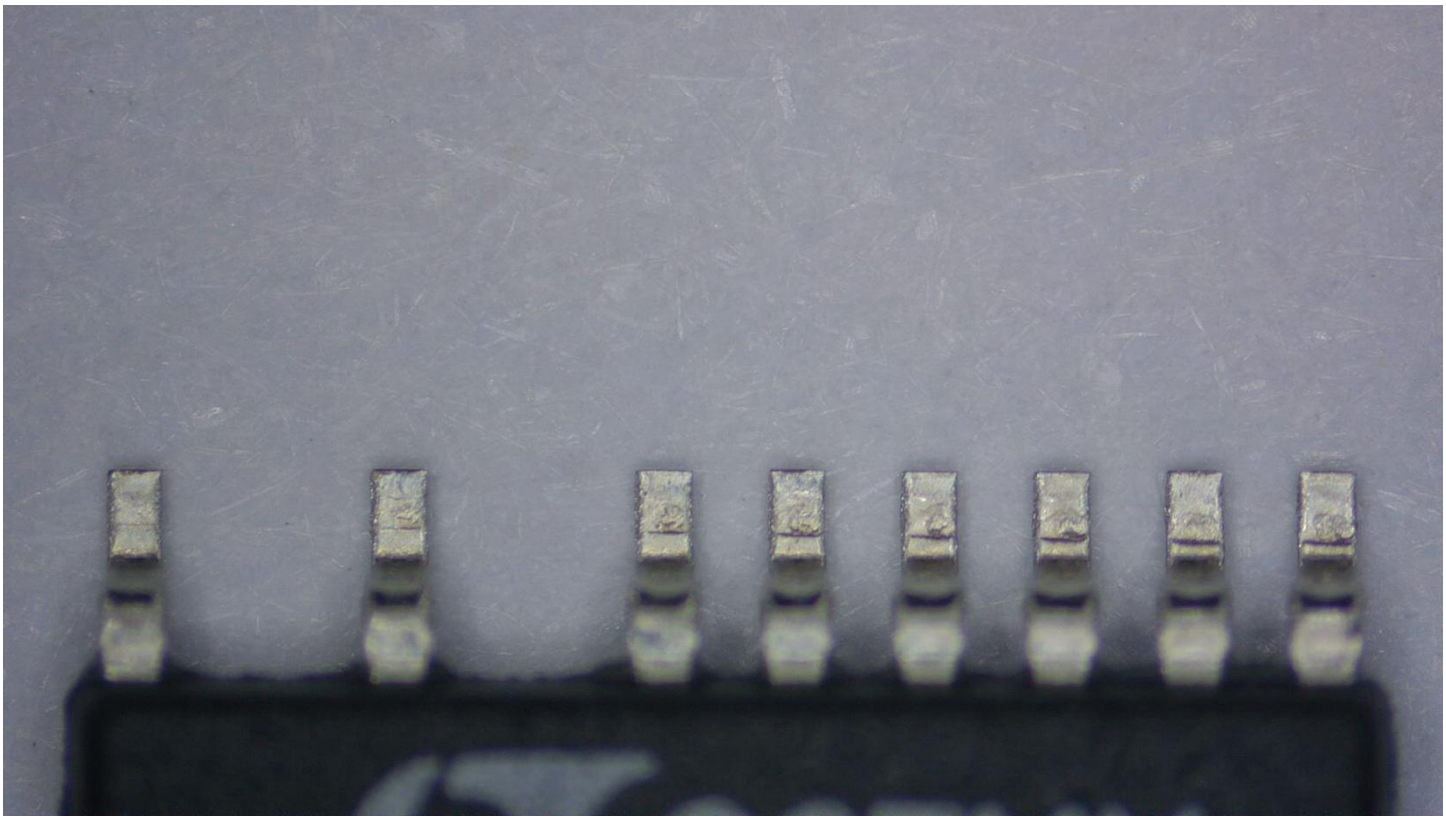


Top Leads 1



Top Leads 2

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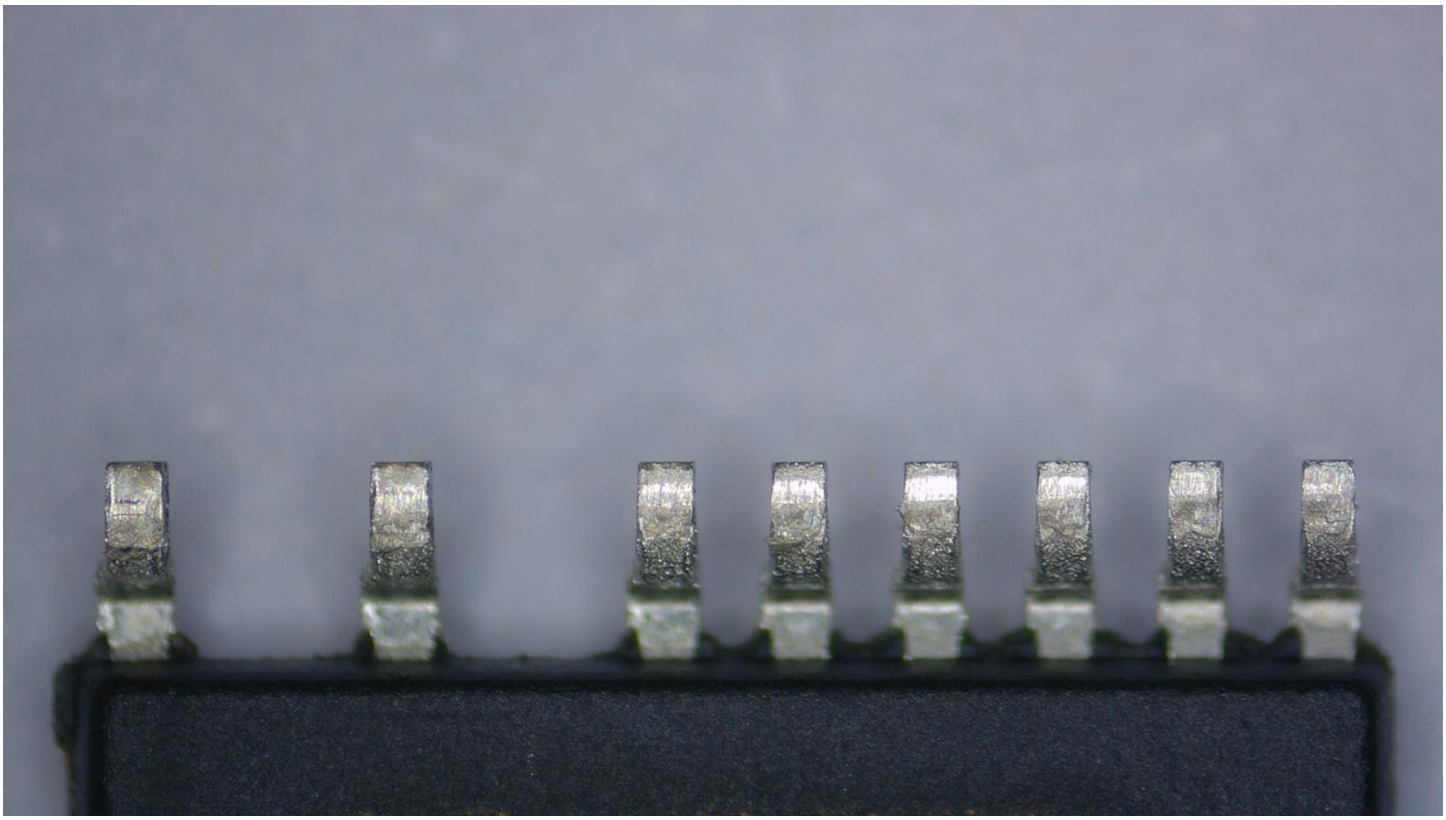

Bottow Leads 1

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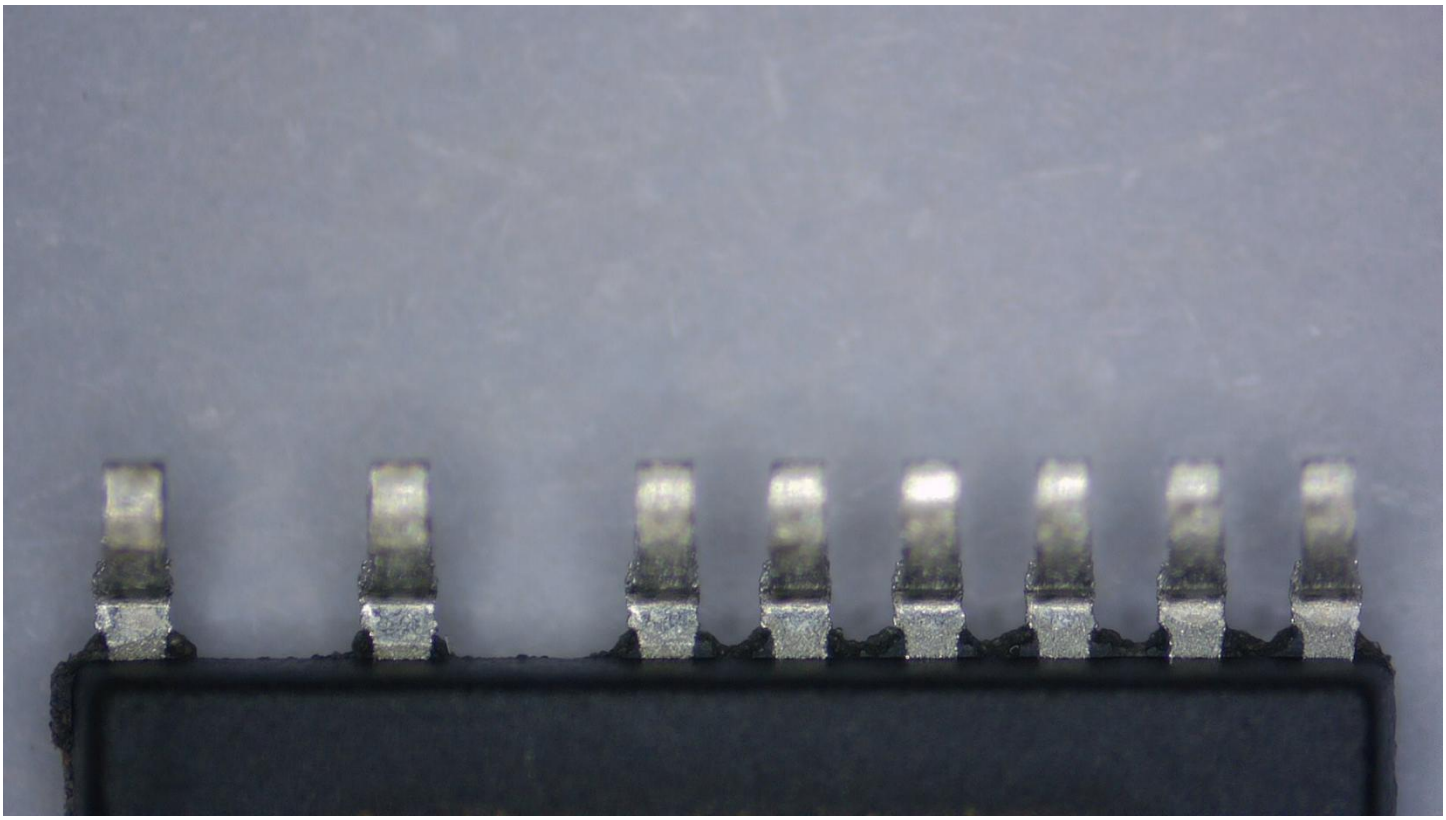
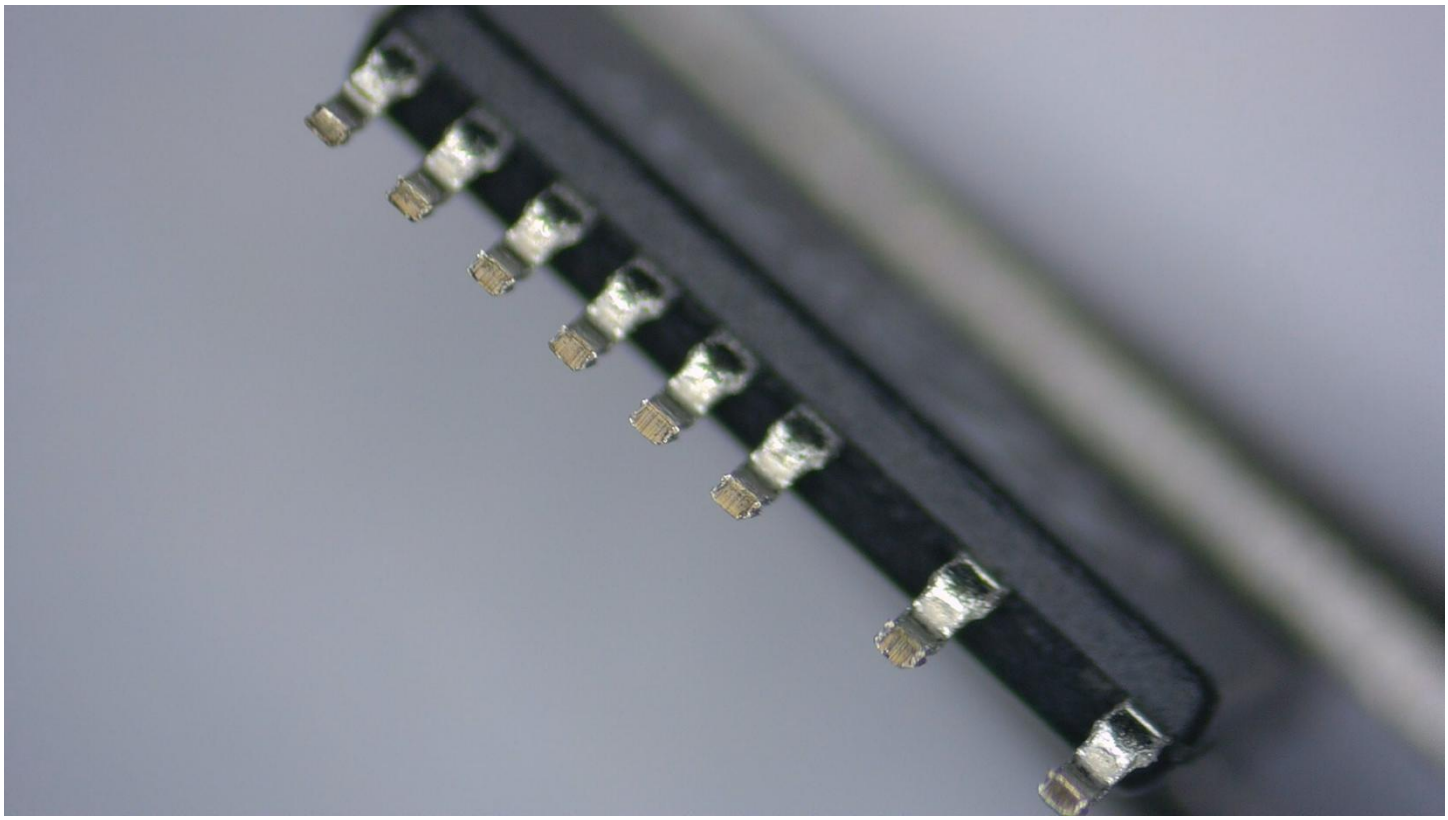


Bottow Leads 2

JANtronic GmbH



Side of View

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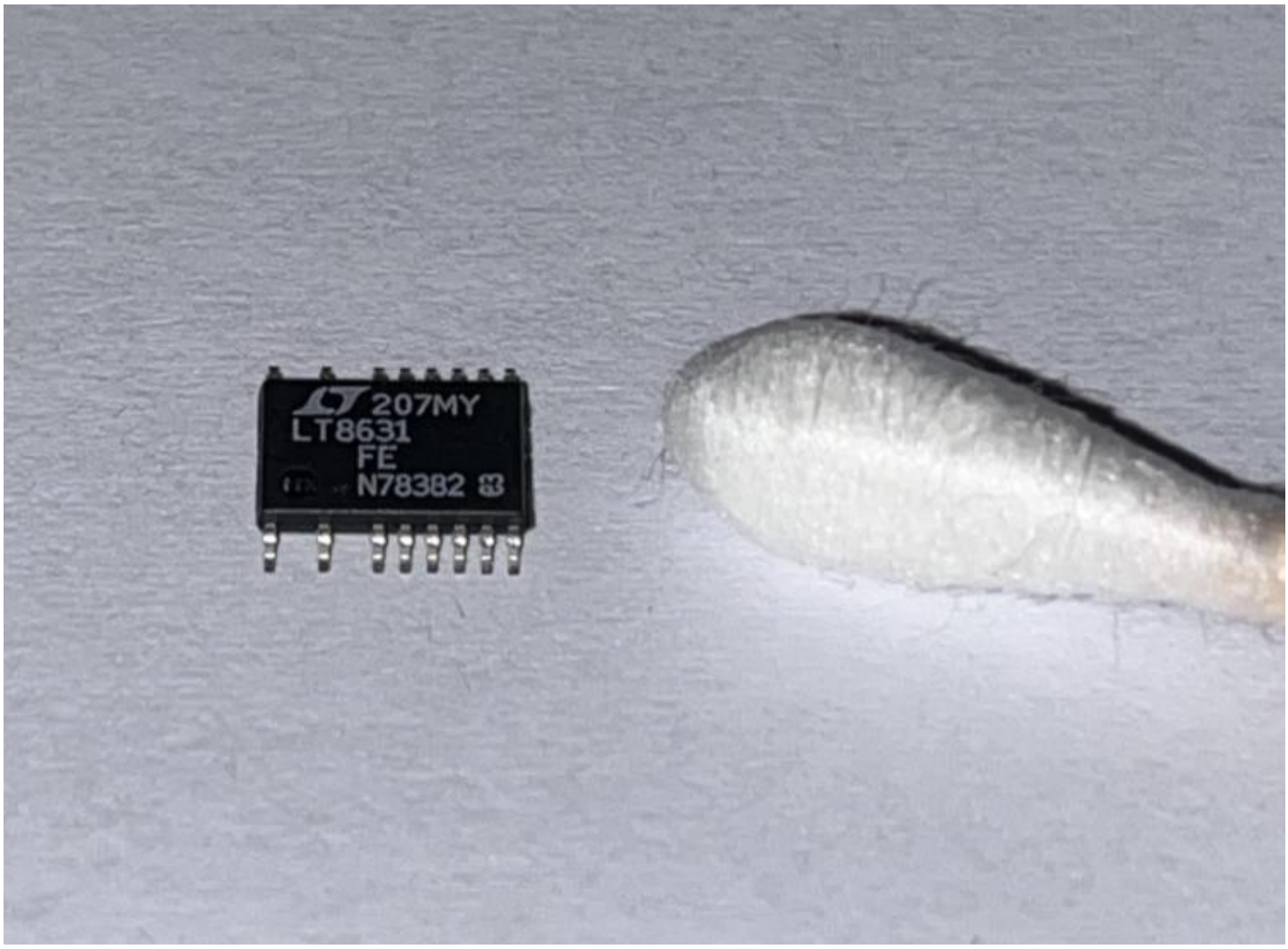

Acetone Test

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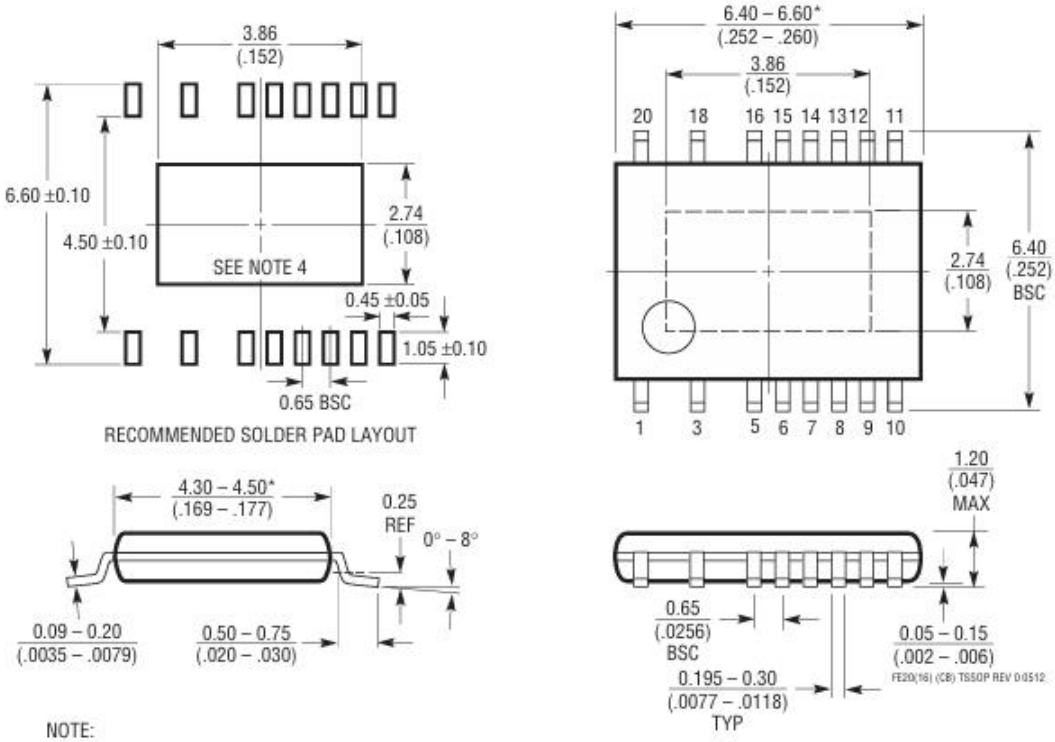
PACKAGE DESCRIPTION

FE Package
Variation: FE20(16)
20-Lead Plastic TSSOP (4.4mm)
(Reference LTC DWG # 05-08-1924 Rev Ø)
Exposed Pad Variation CB



NOTE:
1. CONTROLLING DIMENSION: MILLIMETERS
2. DIMENSIONS ARE IN $\frac{\text{MILLIMETERS}}{(\text{INCHES})}$
3. DRAWING NOT TO SCALE
4. RECOMMENDED MINIMUM PCB METAL SIZE FOR EXPOSED PAD ATTACHMENT

*DIMENSIONS DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.150mm (.006") PER SIDE

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Length

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Width

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Height

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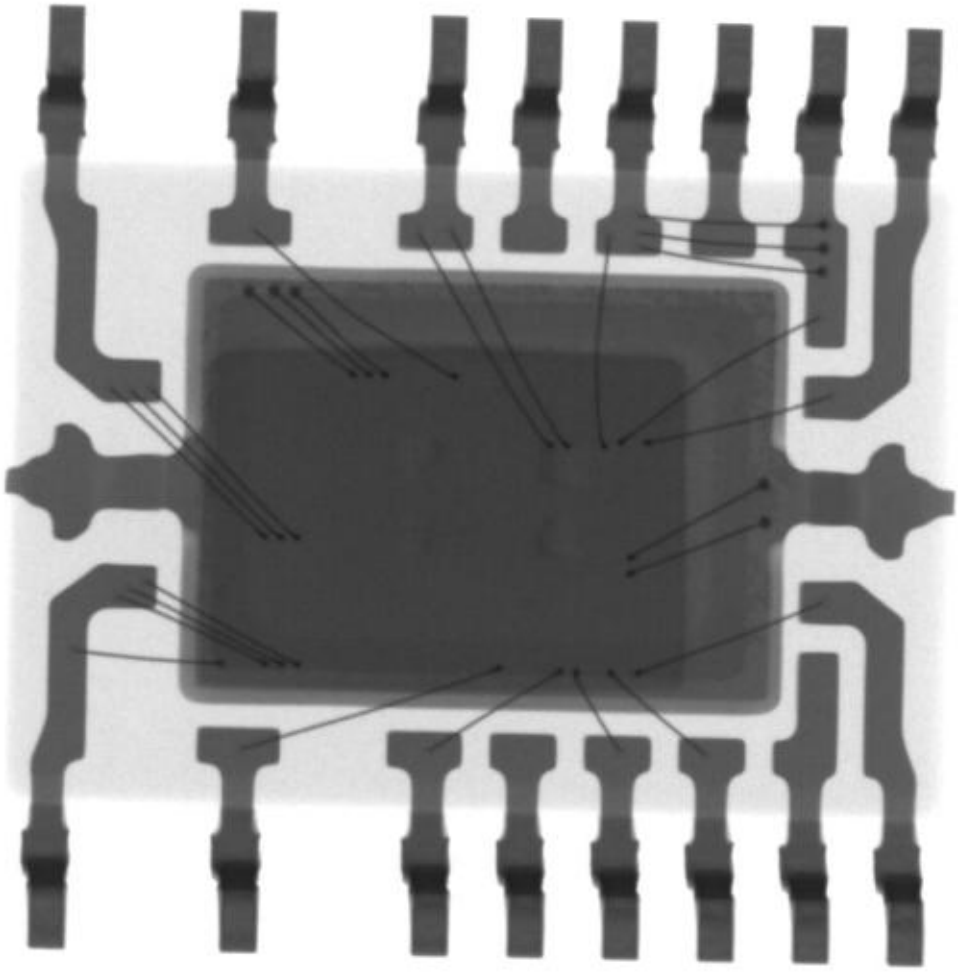

X-RayTopView-Sample1

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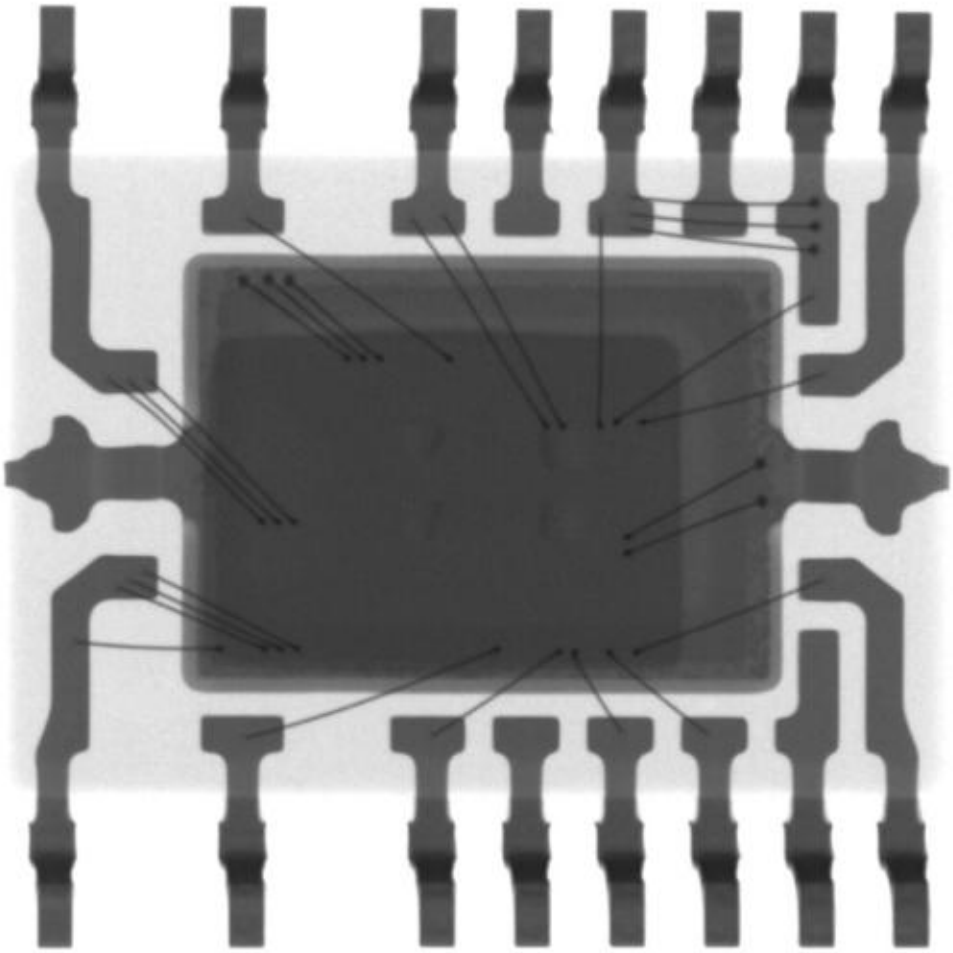
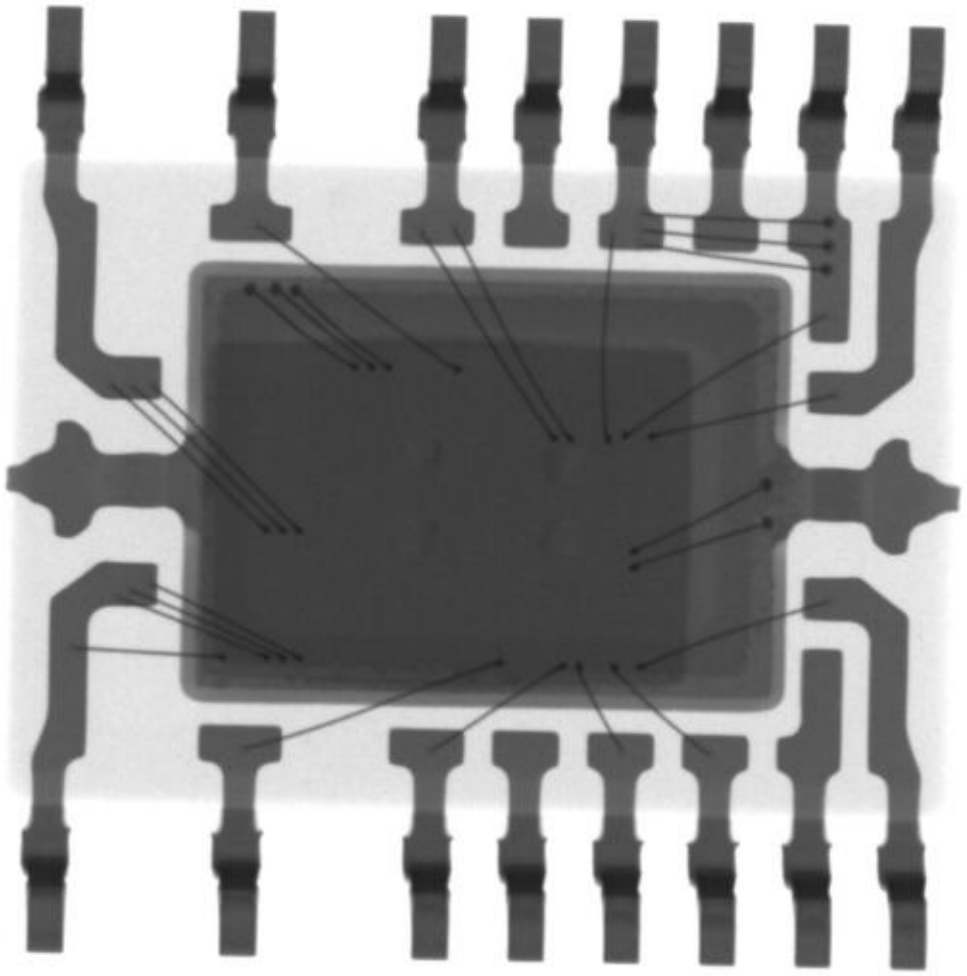


X-RayTopView-Sample2

JANtronic GmbH



X-RayTopView-Sample3

Test Report

Sample Name: The integrated circuit

Part Number: LT8631EFE#TRPBF

Manufacturer: ADI

Customer: JANtronic GmbH

Shenzhen Chuangxin Online Testing Service Co., Ltd.

April 02, 2025

Test Report

Customer:	JANtronic GmbH
Customer Address:	N/A
Sample Name:	The integrated circuit
Part Number:	LT8631EFE#TRPBF
Manufacturer:	ADI
Date Code:	2207
Package Type:	TSSOP-20
Quantity Received:	4 PCS
Quantity Inspected:	2 PCS
Date Received:	03/28/2025
Date Tested:	03/31/2025/13:00 - 03/31/2025/17:00

Issued by (Stamp)

Tested by Allen

Inspected by Nacy

Approved by Leo

Test Items

☐ External visual inspection

☐ Pin correlation test

☐ Programming test

☑ Solderability analysis

☐ Radiography(X-ray)

☐ XRF test

☐ Key functional test(KFT)

☐ Baking

☐ Tape and reel

☐ Top permanency test

☑ Internal visual inspection

☐ SAT test

☐ Cross section

Methods & Equipment

1.1 Test standard:

- AS6081A-2023
- J-STD-002E-2017

1.2 Optical microscope:

- Equipment spec:

Optical microscope: SEZ-260 X7-X45(Due date: 07/17/2025)

Metalloscope：FJ-5A X50-X1000 (Due date：07/17/2025)

1.3 Tin melting furnace:

- Equipment spec:

Tin melting furnace: BK-207(Due date: 07/17/2025)

Flux: No. 2 standard active rosin flux

1.4 Laser lid opener:

- Equipment spec:

Laser lid opener: DM300-IC(Due date: 07/17/2025)

1.5 Datasheet Reference:

- 《ADI LT8631EFE#TRPBF》:

https://item.szlcsc.com/datasheet/LT8631EFE%2523TRPBF/705145.html?spm=sc.gb.xds.a___sc.gb.hd.ss&c=Z&lcsc_vid=E1FaUQADRwRdBVFWRlUNVFJTQAJaBVZWRlYPU1YHE1kxVlNSRFRbUlxVRVdbVTtW

Analysis Summary

Solderability analysis:

Applicable standard: J-STD-002E-2017

Solderability tested were performed on 2 PCS samples(1 PCS of #N80517 and 1 PCS of #N78382) using the dip and look methods. 2 PCS pass solderability test. The dipped portion of the terminations is more than 95% covered by a continuous new solder coating.

The dipped portion of the bonding pad is more than 80% covered by a continuous new solder coating.

Internal visual inspection:

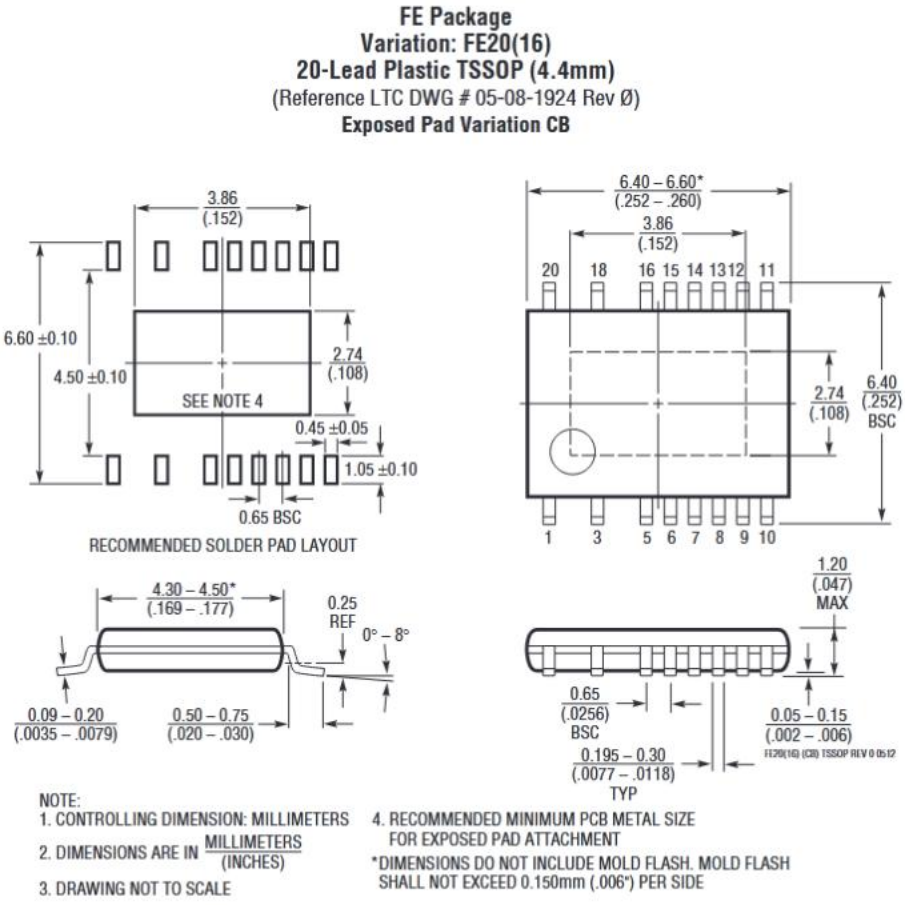
Applicable standard: **AS6081A-2023**

Internal visual inspection was verified on 2 PCS samples(1 PCS of #N80517 and 1 PCS of #N78382). The 2 PCS samples have the same structure. Manufacturer LINEAR marking with 2012 copyright year and die marking RP JP 8631 were found on the die surface. Devices confirmed to be the LINEAR device.

1. Device description:

The LT®8631 is a current mode PWM step-down DC/DC converter with internal synchronous switches that provide current for output loads up to 1A. The wide input range of 3V to 100V makes the LT8631 suitable for regulating power from a wide variety of sources, including automotive and industrial systems and 36V to 72V telecom supplies.Low ripple Burst Mode operation enables high efficiency operation down to very low output currents while keeping the output ripple below 10mVp.p.

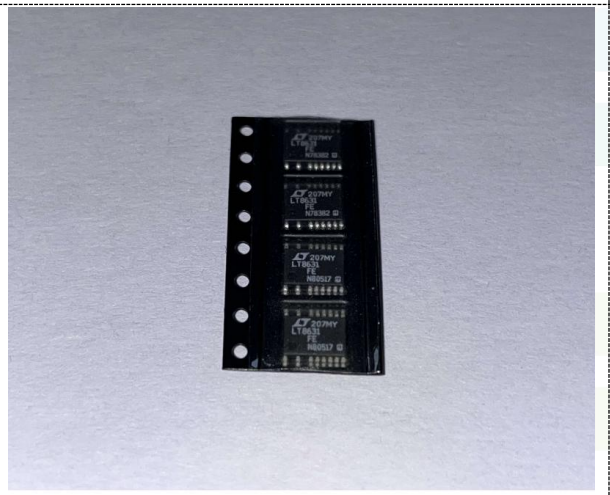
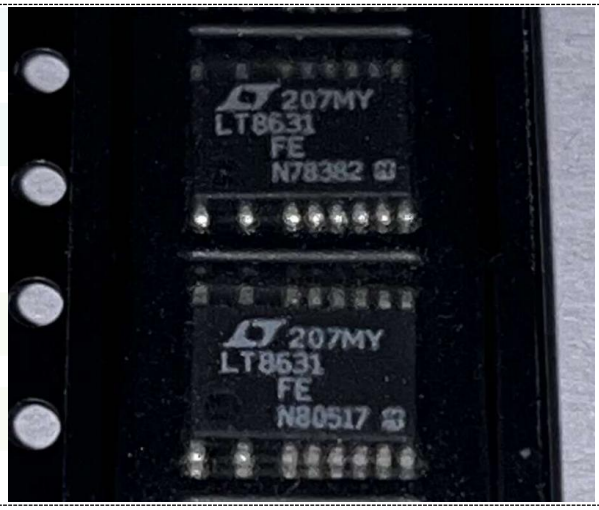
2. Package dimensions:



3. Documentation and packaging inspection:

Gross Weight	3.2 g	**Quantity Received**	4 PCS
Number of Boxes	N/A	**Full Label**	N/A
Package Type	Reel	**Moisture Protection**	N/A
MSL	N/A	**ESD Protection**	N/A

Note: All devices contain 4 PCS samples.

Received view-1	Received view-2
	

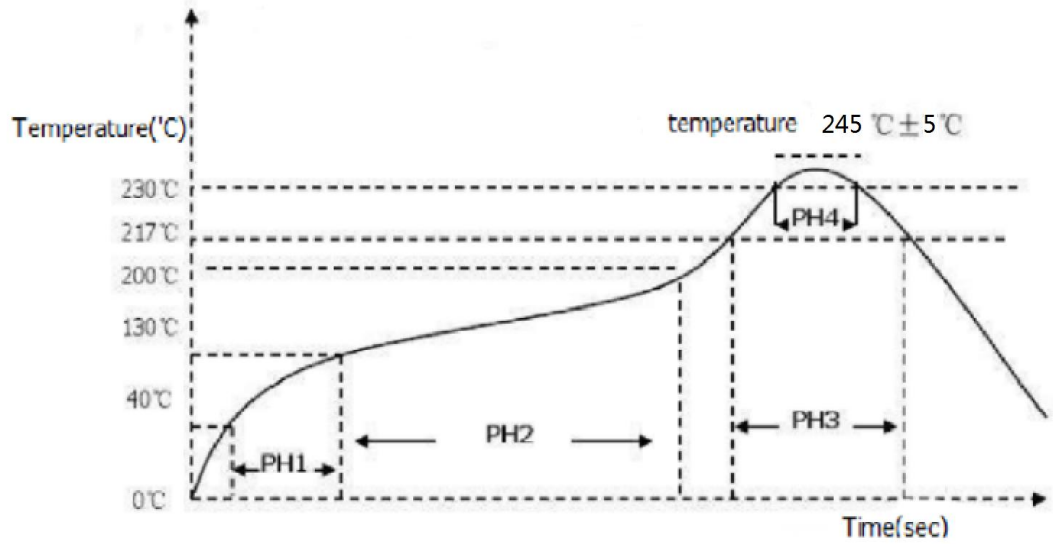
4. Solderability analysis:

Applicable standard: **J-STD-002E-2017**

Solderability tested were performed on 2 PCS samples(1 PCS of #N80517 and 1 PCS of #N78382) using the dip and look methods. 2 PCS pass solderability test. The dipped portion of the terminations is more than 95% covered by a continuous new solder coating.

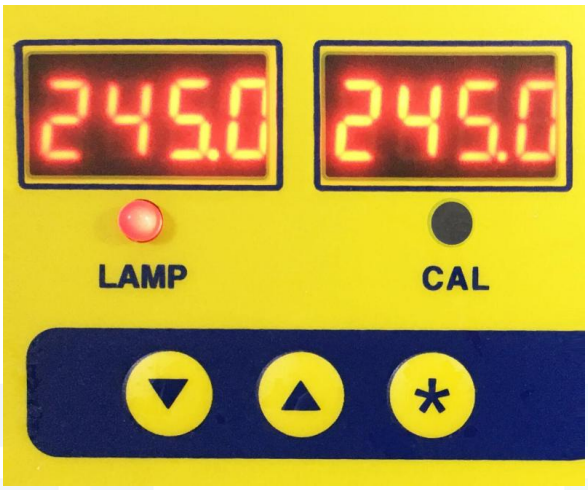
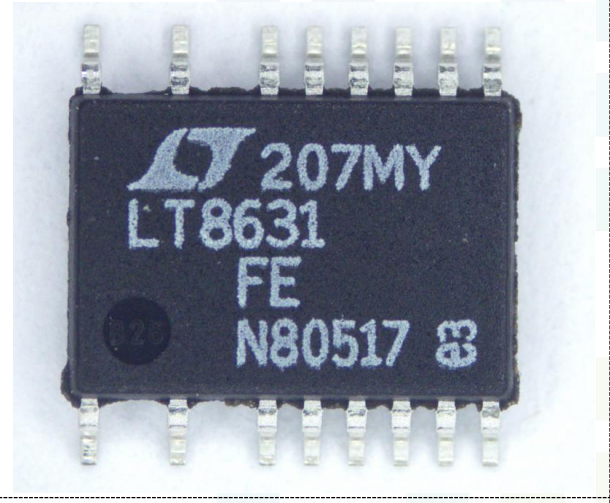
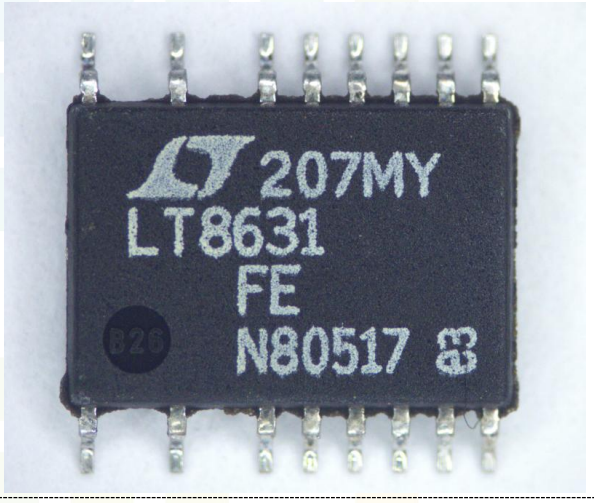
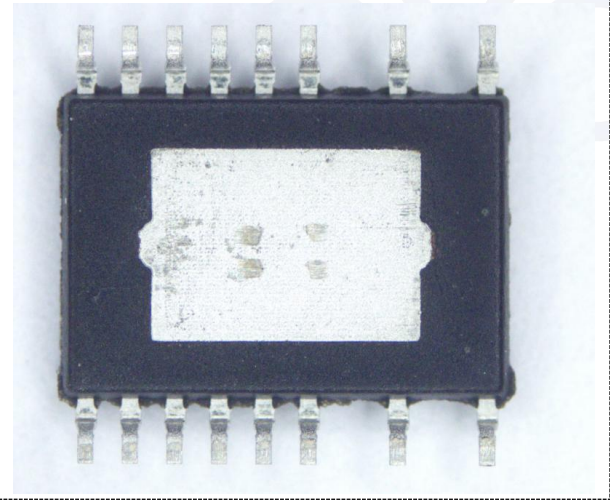
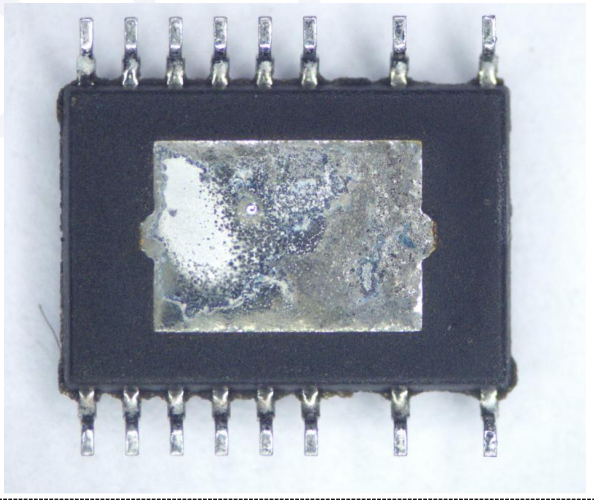
The dipped portion of the bonding pad is more than 80% covered by a continuous new solder coating.

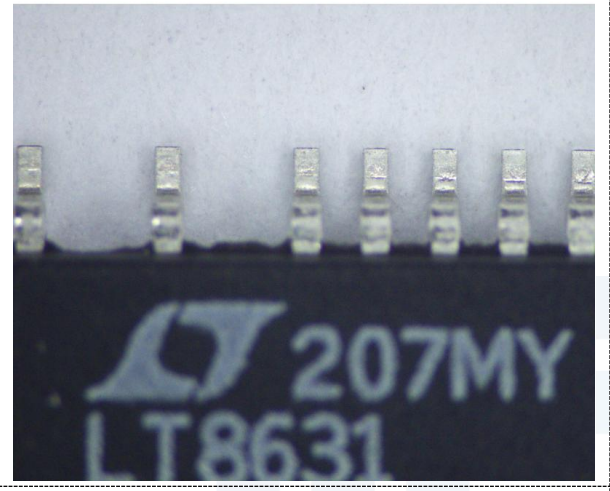
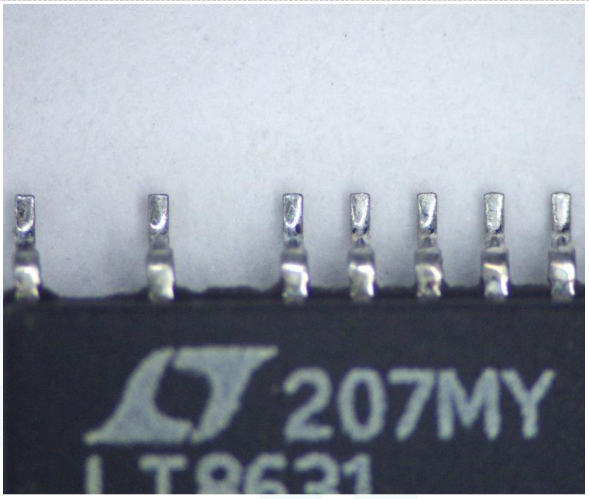
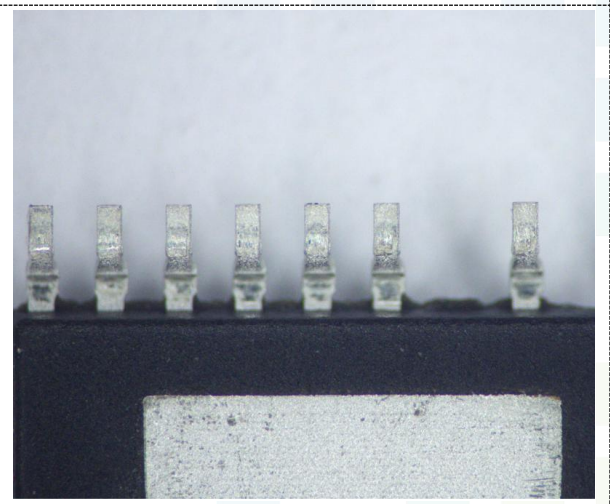
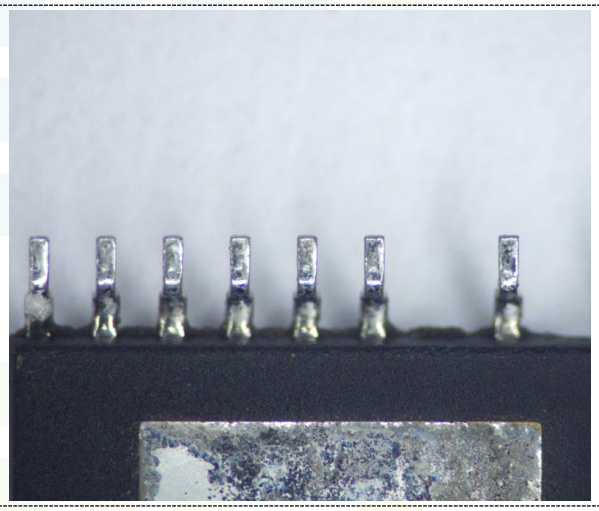
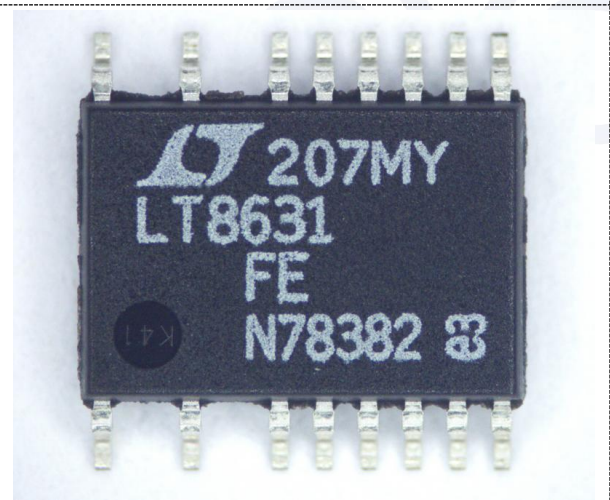
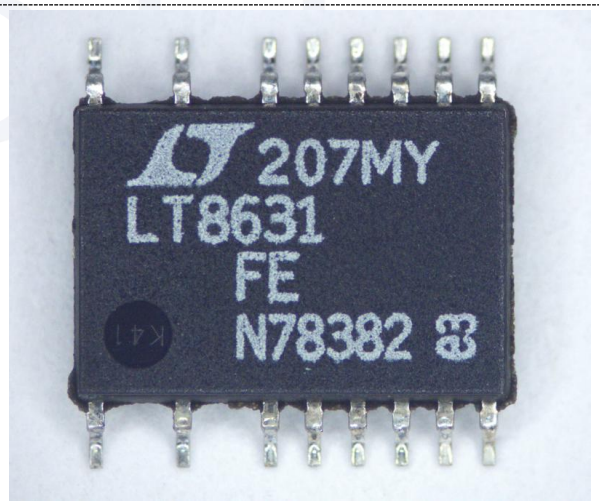
Test condition:

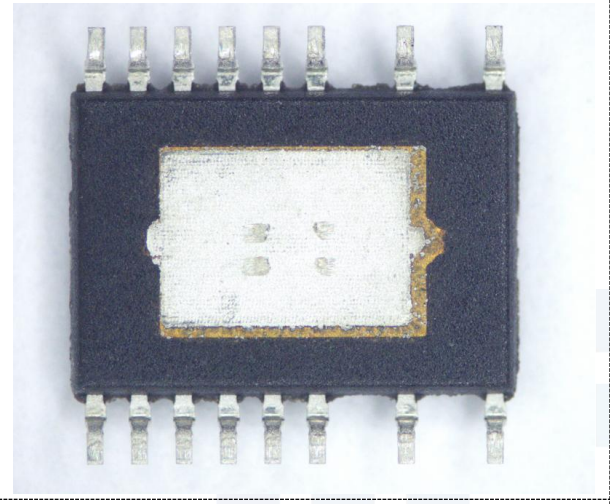
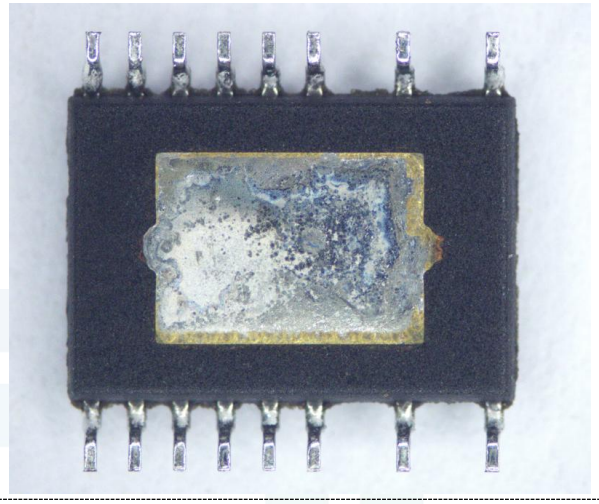
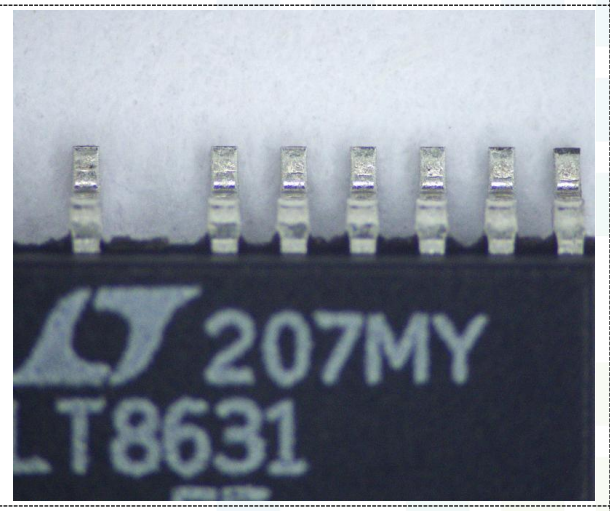
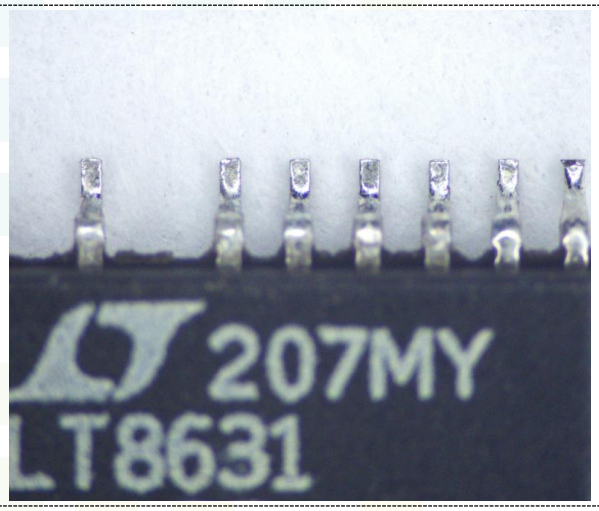
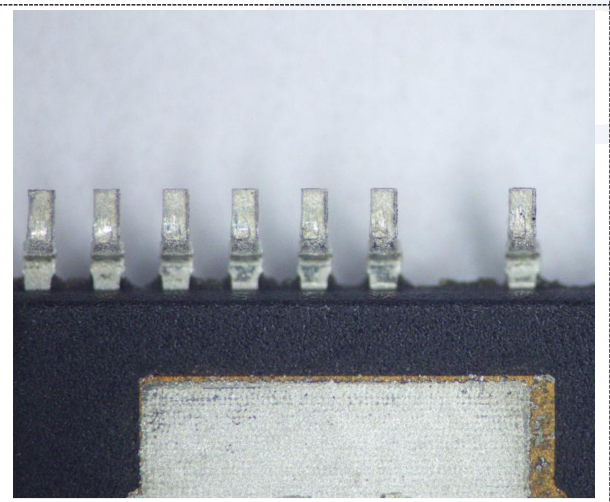
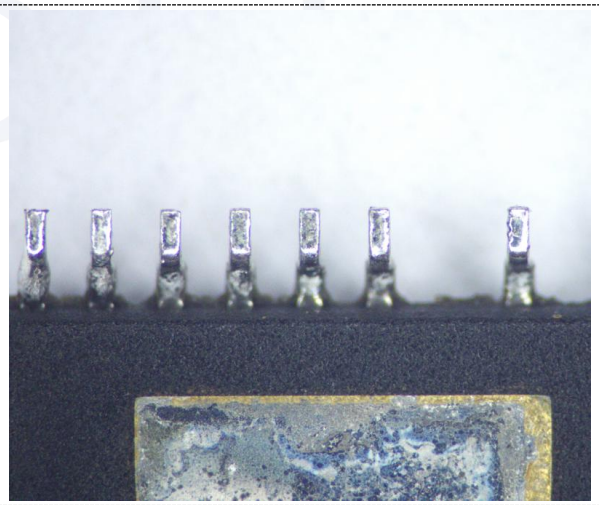


Furnace temperature curve analysis

Room temperature	25.2 ℃	**Relative humidity**	56.3% RH
Immersion time	5 s	**Solder immersion time**	5 s
Flux immersion angle	45 º	**Solder pot temperature**	245 ℃
Solder material	Sn96.5 %,Ag3 .0%,Cu0.5%	**Solder method**	Dip and look test

Tin furnace temperature	
	
#N80517-Before top view	#N80517-After top view
	
#N80517-Before bottom view	#N80517-After bottom view
	

#N80517-Before leads view - 1	#N80517-After leads view - 1
	
#N80517-Before leads view - 2	#N80517-After leads view - 2
	
#N78382-Before top view	#N78382-After top view
	

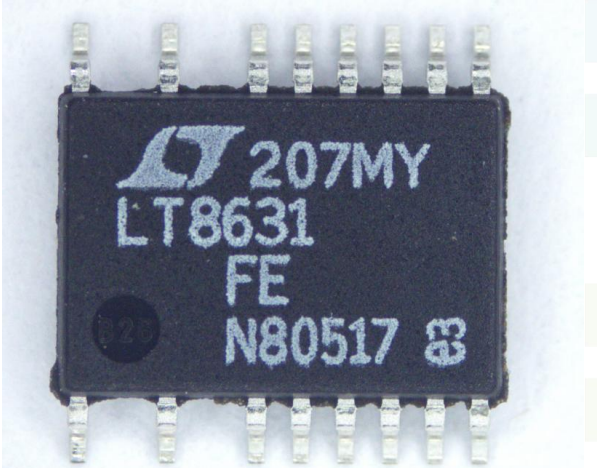
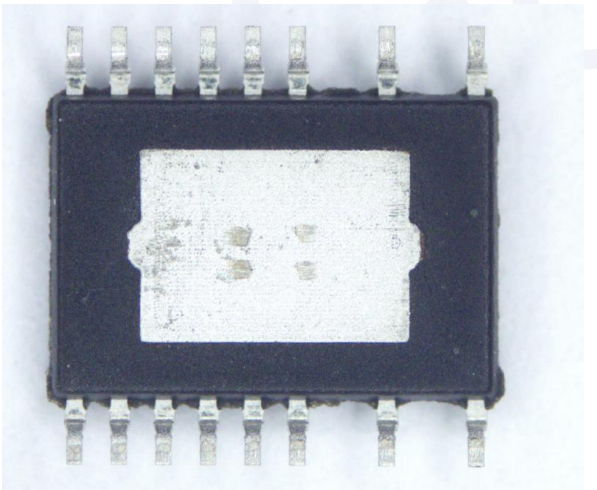
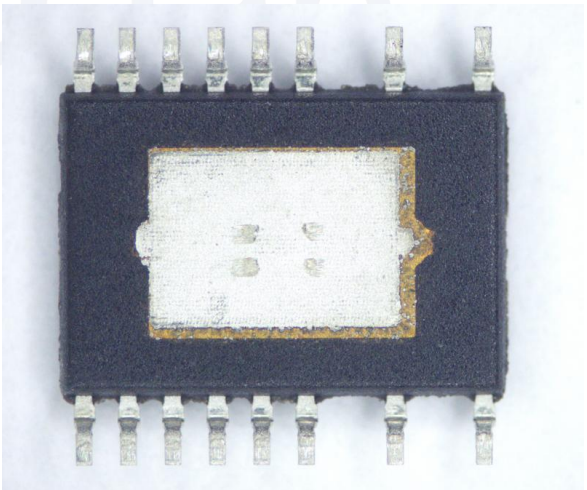
#N78382-Before bottom view	#N78382-After bottom view
	
#N78382-Before leads view - 1	#N78382-After leads view - 1
	
#N78382-Before leads view - 2	#N78382-After leads view - 2
	

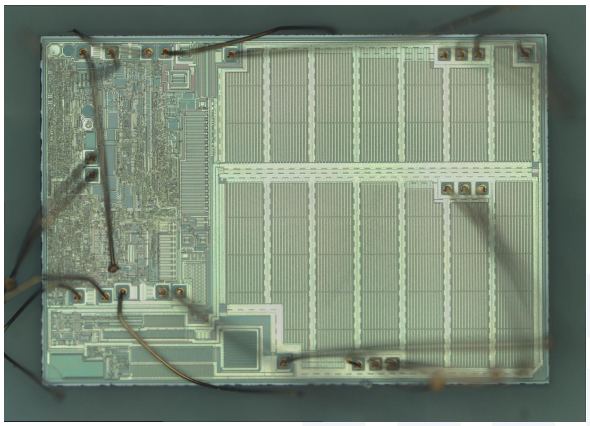
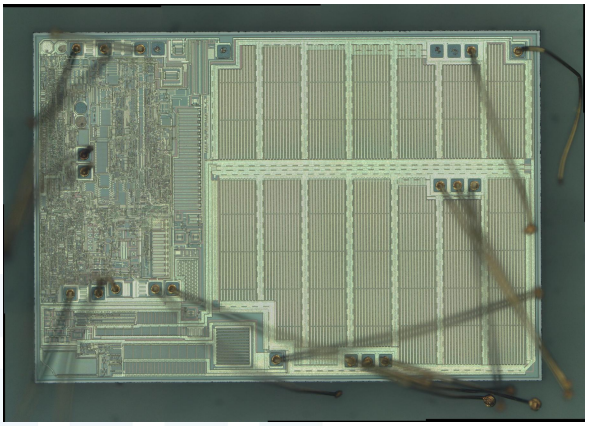
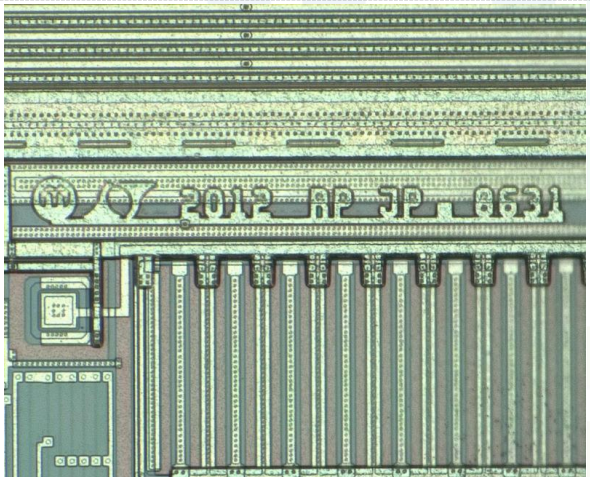
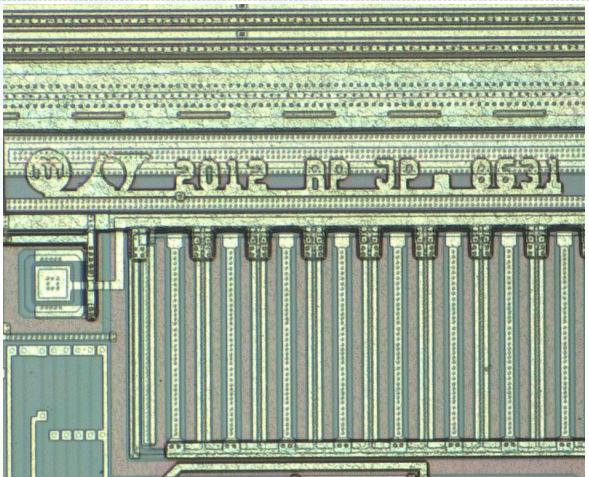
5. Internal visual inspection:

Applicable standard: **AS6081A-2023**

Ambient temperature: 24.5 ℃ Relative humidity: 57.8 % RH

Internal visual inspection was verified on 2 PCS samples(1 PCS of #N80517 and 1 PCS of #N78382). The 2 PCS samples have the same structure. Manufacturer LINEAR marking with 2012 copyright year and die marking RP JP 8631 were found on the die surface. Devices confirmed to be the LINEAR device.

#N80517-Top	#N78382-Top
	
#N80517-Bottom	#N78382-Bottom
	

#N80517-Die topography	#N78382-Die topography
	
#N80517-Die logo with copyright and marking	#N78382-Die logo with copyright and marking
	

-End of Report-

Disclaimer

1. The test report is invalid without the stamp of "company report seal" and "cross-page seal".

2. The copy of the test report is invalid without the stamp of "company report seal" and "cross-page seal".

3. The test report is invalid without the signatures of operator, supervisor and manager.

4. A modified or partial copy of the test report is invalid.

5. When there is disagreement with the test report, please submit the issue to us within 15 days from the date of receipt. Overdue information will not be accepted.

6. The test report is only reflective of the test results of testing samples, not of the quality of batch products.

7. The * indicates subcontract test data.

8. The report is stamped with the CMA mark, indicating that the test items are within the scope of qualification recognition; No CMA mark is stamped, indicating that some/all of the test items are not within the scope of CMA qualification, and the results are for internal use by the customer only.

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