THE QUALITY CONTROL COMPANY

PRODUCT ANALYSIS REPORT

Report:	329151.1
Date:	18-Nov-2025
Lot Qty:	2
Part Number:	XC6VLX195T-1FFG1156I
Manufacturer:	Xilinx
Client:	Shenzhen Lianyi Xin Electronic Technology Co., Ltd
Client P/O:	PO Unknown
Work Order:	329151

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ANSI National Accreditation Board
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TESTING LABORATORY

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ESD ASSOCIATION
Setting the Global Standards for Static Control

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WHITE HORSE LABORATORIES

Order Information

Work Order:	329151	**Protocol:**	Custom
Part Number:	XC6VLX195T-1FFG1156I	**ERAI History:**	No
Manufacturer:	Xilinx	**Device Type:**	IC - FPGA
Package Type:	FCBGA-1156	**MSL:**	4
Description:	Virtex-6 FPGA		
Datasheet:	https://docs.amd.com/v/u/en-US/ds152		

Result

Conclusion:	Acceptable
Approved By:	Patrick Lagman
Job Title:	Product Analysis Engineer

Processes Performed

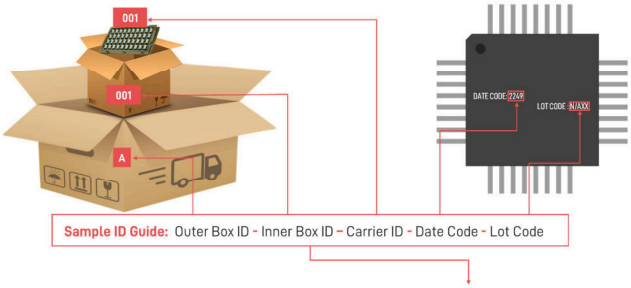
✓	Documentation & Packaging	2	●	Cross Section	
✓	General Inspection	2	●	Sorting	
✓	External Visual Inspection	2	●	Baking	
●	Sole Marking Permanency Test				
●	XRF				
●	2D Radiological (X-Ray) Inspection				
●	Scanning Acoustic Microscopy				
●	Dye & Pry				
●	Heated Chemical Test				

Legend: ✓ Acceptable ● Not Acceptable ● F.A.R. ● Not Conducted

Analysis

The sample showed no evidence of rework or prior use. The marking, mechanical measurements, and exterior configuration were consistent with the datasheet, and with the requested part number.

Documentation & Packaging



Outer Box	Inner Box	Carrier	Date Code	Lot Code	COO	QTY	Samples Taken	Sample ID	Dimensions (CM)	Weight (KG)
1	2	1	1829	DD5683950A	Taiwan	2	2	2	17*10*11	0.2

Sample Table

Test Item	Sample ID	QTY
External Visual Inspection	2	2

Documentation & Packaging

Reviewer: YY0532
Process Location: Shenzhen
Technician: LO0002
Date Conducted: 16-Nov-2025
Standard & Method: AS6081 4.2.6.4.1

Equipment

Equipment	Serial No	Current Cal	Next Cal	Job
Camera	WHL-QH0084	N/A	N/A	GIS
Weighing scale	WHL-QH0135	12-Jan-2025	12-Jan-2026	DPI
Camera	WHL-QH0084	N/A	N/A	DPI

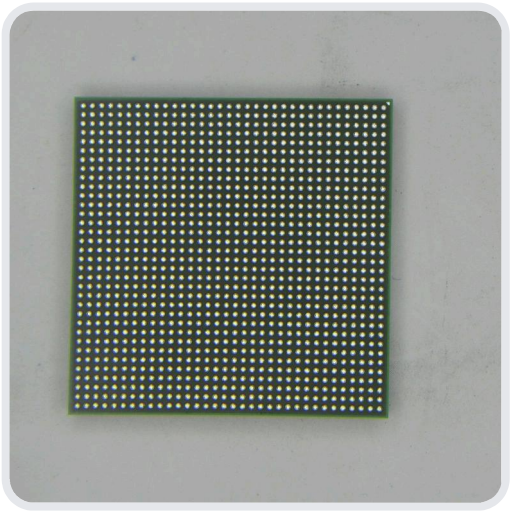
Analysis

Product arrived in bulk without appropriate MSL protective packaging due to no MBB, HIC and Desiccant.

Receiving	✔	Result is acceptable
DPI	✔	Result is acceptable
GIS	✔	Result is acceptable

Box

Top View



Bottom View

End of Section

External Visual Inspection

Reviewer:	YY0532	**Process Location:**	Shenzhen
Technician:	JY0256	**Date Conducted:**	18-Nov-2025
Standard & Method:	AS6081 4.2.6.4.2.2		

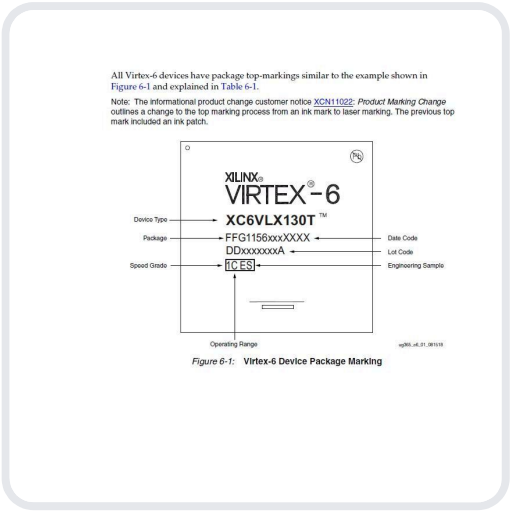
Equipment

Equipment	Serial No	Current Cal	Next Cal
Microscope	WHL-QH0137	N/A	N/A
Camera	WHL-QH0162	N/A	N/A
General Caliper	WHL-QH0177	31-Oct-2025	30-Nov-2025
Electronic Scale	WHL-QH0178	31-Oct-2025	30-Nov-2025
Coplanarity Projector	WHL-QH0113	N/A	N/A
Calibration block	WHL-QH0284	11-Dec-2024	11-Dec-2025

Analysis

Sample does not exhibit any indication of rework or prior use. The sample has the same exterior configuration as shown on the Package Outline Drawing (POD).

Marking Inspection	✓ Result is acceptable	Acceptable QTY : 2	Not Acceptable QTY : 0
Package Body Inspection	✓ Result is acceptable	Acceptable QTY : 2	Not Acceptable QTY : 0
Terminal Inspection	✓ Result is acceptable	Acceptable QTY : 2	Not Acceptable QTY : 0
Exterior Configuration and Coplanarity	✓ Result is acceptable	Acceptable QTY : 2	Not Acceptable QTY : 0
Dimensions and Weights	✓ Result is acceptable	Acceptable QTY : 2	Not Acceptable QTY : 0



Marking code

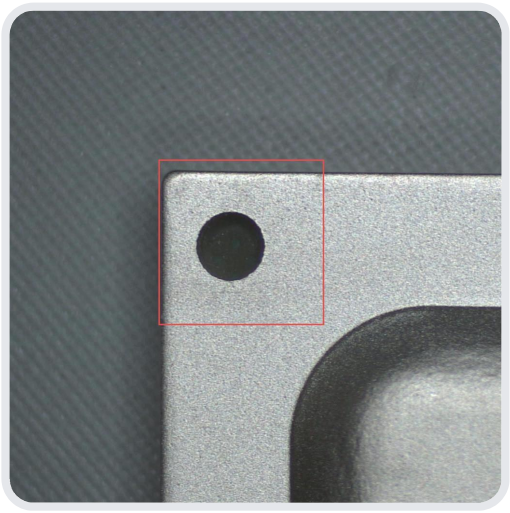
2

Device Marking (Match)

2

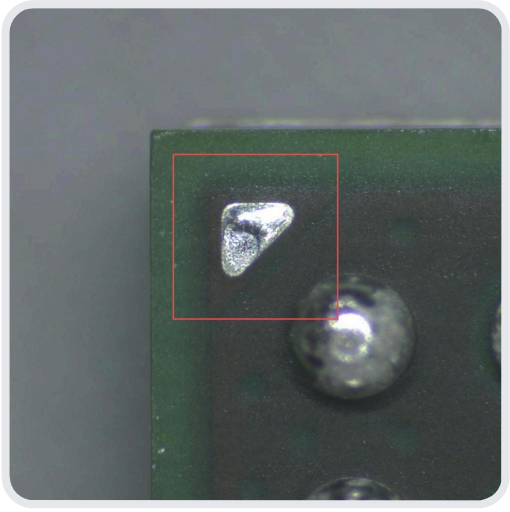
Magnified Photo of Marking

2



Pin 1 Indicator (Device Top)

2

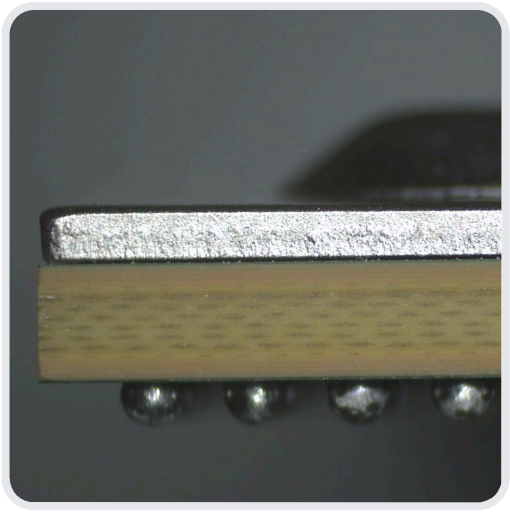


Pin 1 Indicator (Device Bottom)

2

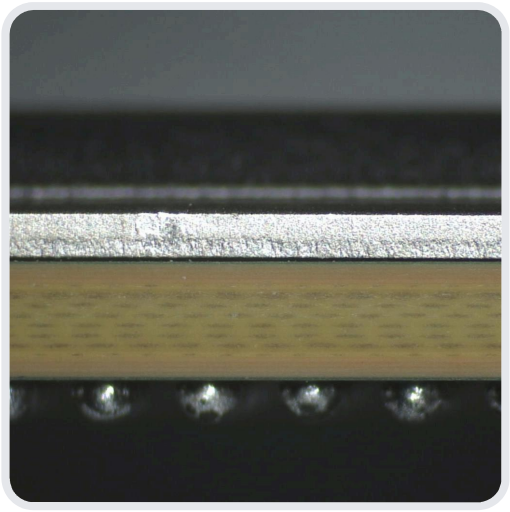
Country of Origin Marking (Device Top)

2



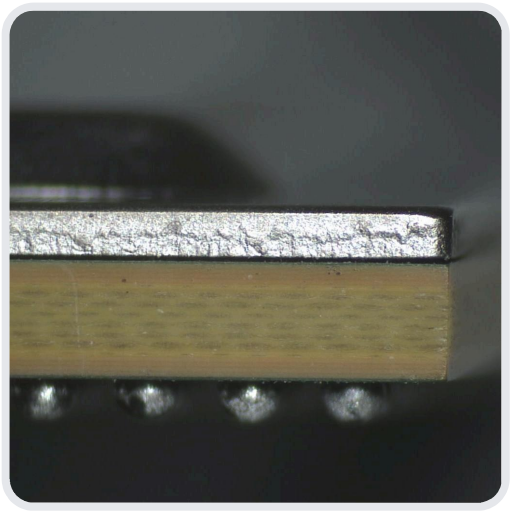
Magnified Side View

2



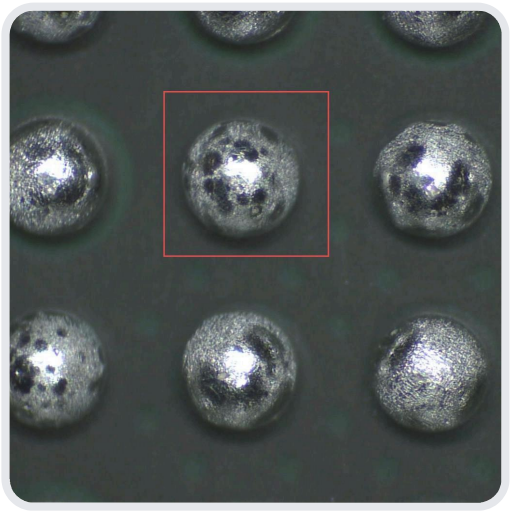
Magnified Side View

2



Magnified Side View

2



Solder Balls

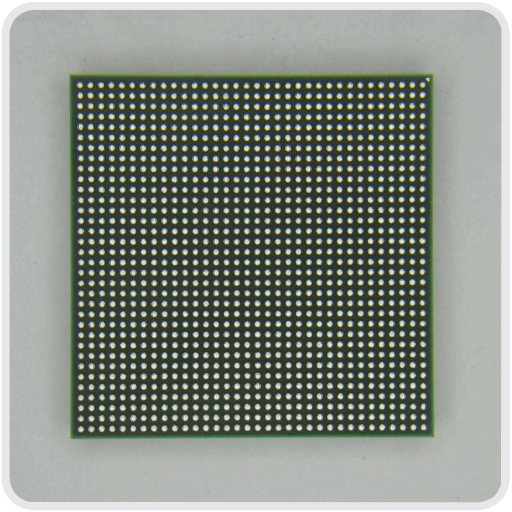
2

Coplanarity Test (Pass)

2

Part as Shown on POD Device Top

2



Part as Shown on POD Device Bottom

2

Part as Shown on POD Device Side

2

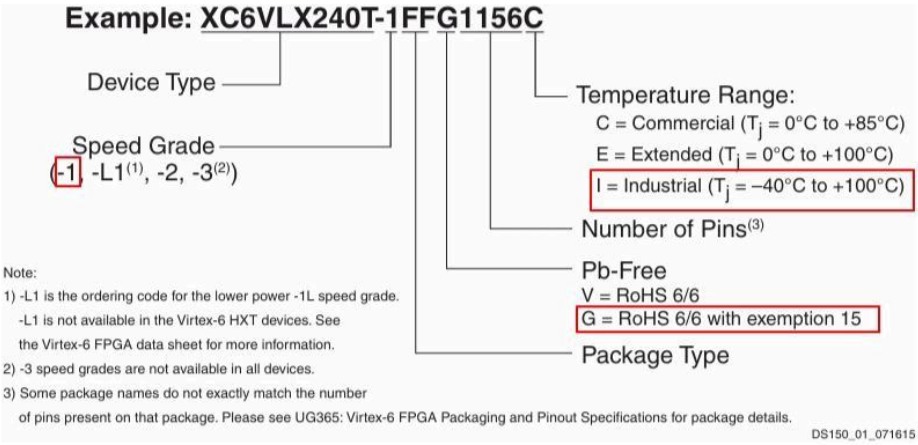


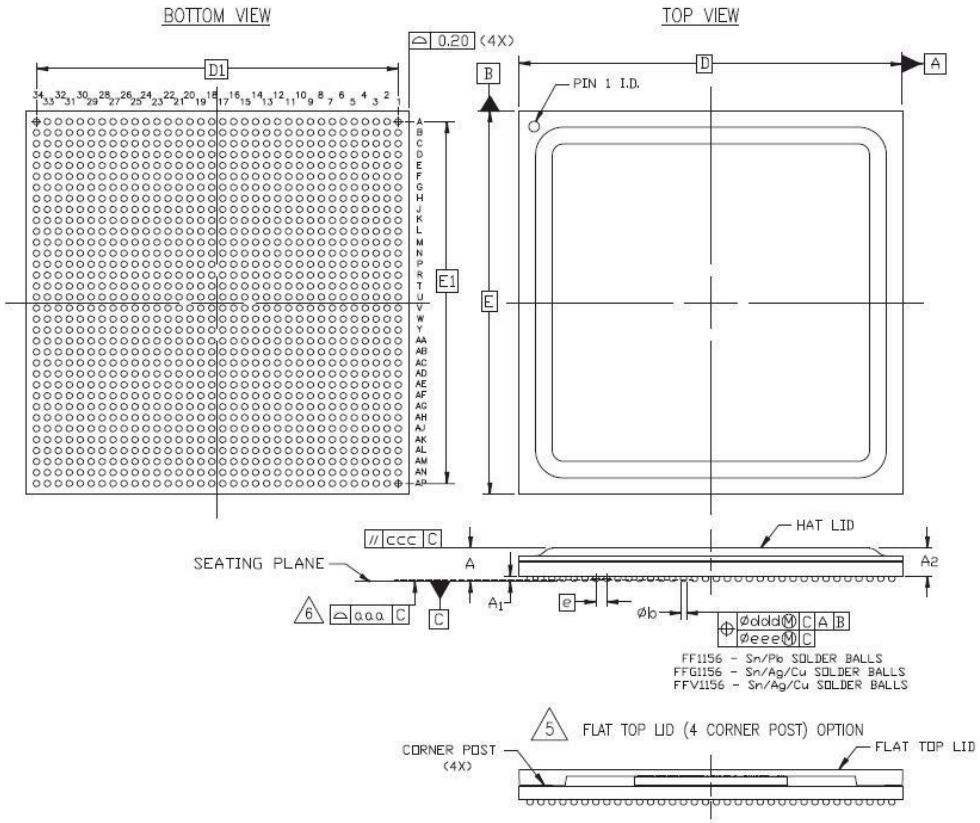
Figure 1: **Virtex-6 FPGA Ordering Information**

Ordering Information

Package Outline Drawing (POD)

FF1156/FFG1156 Flip-Chip Fine-Pitch BGA Package Specifications (1.00 mm Pitch)

The following is for the XC6VLX130T, XC6VLX195T, XC6VLX240T, XQ6VLX130T, XQ6VLX240T, XQ6VSX315T, and XQ6VSX475T devices.



POD Dimension Tables

SYMBOL	MILLIMETERS			NOTE
	MIN.	NOM.	MAX.	
A	2.70	3.10	3.50	
A_1	0.40	0.50	0.60	
A_2	2.30	2.60	2.90	
D/E	35.00 BASIC			
D_1/E_1	33.00 BASIC			
e	1.00 BASIC			
øb	0.50	0.60	0.70	4
aaa	~~	~~	0.20	
ccc	~~	~~	0.35	
ddd	~~	~~	0.30	
eee	~~	~~	0.10	
M	34			2

NOTES:

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M–1994
2. SYMBOL 'M' IS THE BALL MATRIX SIZE.
3. CONFORMS TO JEDEC MS–034–AAR–1
4. ACTUAL SOLDER BALL COUNT = 1156

5 FLAT TOP LID WITH 4 CORNER POST OPTION WILL BE USED ONLY FOR THE FOLLOWING DE VIRTEX–6: XC6VSX475T, XC6VSX315T, and XC6VLX365T

6 APPLICABLE TO ALL DEVICES EXCEPT XC6VSX475T, XC6VSX315T AND XC6VLX365T

Figure 4-8: **FF1156/FFG1156 Flip-Chip Fine-Pitch BGA Package Specifications**

Dimensions Data Measured Device Key

Device #	1
Sample ID	2

Dimensions Data Log

Label	UOM	Tolerance	Device # 1
D	mm	35.0000	35.0300
E	mm	35.0000	35.1100
A	mm	REF=3.1000 , Min=2.7000 , Max=3.5000	2.9500
b	mm	REF=0.6000 , Min=0.5000 , Max=0.7000	0.6100
e	mm	1.0000	0.9900
g	g	—	10.9300

Dimensions Data Log Photo

Label : D

1

Label : E

1

Label : A

1

Label : b

1

Dimensions Data Log Photo

Label : e

1

Label : g

1

End of Section

Report Explanations

1. Result is either Acceptable, Unacceptable, or Suspect Counterfeit based upon the test methods conducted in the requested test plan and the acceptance criteria defined within AS6171A, section 3.7.1.

2. “Risk Factor” is a calculation of the remaining risk of a device being counterfeit or substandard from the results of the processer conducted, and risk associated with not conducting some processes. Green codes are acceptable with minimal risk of counterfeit or being substandard quality. Yellow codes are potential problems that can be verified with additional testing or physical defects that can be removed. Red codes are unacceptable and either high risk of being counterfeit, fail electrical testing, physically unusable condition.

3. Minor observations such as scratches and loose contamination from normal handling, packaging, storage and aging are defined and allowed within the JEDEC manufacturing standards. Images of minor observations are not included in the report but are on file and available upon request.

4. “FAR” in the process summary on Page 2 means “Further Analysis Recommended”. It is not always possible to reach a conclusion on a single process. When we recommend additional tests to verify an observation found in one process, or gaps in the requested test plan, we will identify those areas of risk as “FAR”.

5. Note that definitions are as defined within the AS6081 and AS6171 standard.

6. Measurements of uncertainty are not included in the report. The reported measurements are valid and measurements of uncertainty are available on request.

7. The decision rule for statement(s) of conformity is based on Binary Statement for Simple Acceptance Rule specified in Decision Rules Clause 4.2.1 in ILAC-G8:09/2019

Notes and Disclaimers

1. Product analysis results are applicable for the inspected samples only. White Horse Laboratories is not liable for the value of the product and any liability is limited to the value of the services provided.

2. “Reference samples” are previously tested and/or inspected product which are used for comparison purposes to the devices analyzed for this report. “Known-good samples” are provided by the customer to compare to unverified product. “Golden samples” are acquired by WHL with direct traceability to the original manufacturer.

3. All source and measurement equipment are calibrated and suitable for the processes conducted with calibration certifications available upon request.

5. WHL is obligated by our Nondisclosure and Confidentiality policy and agreements with our customers. Reports will be verified but no additional information will be supplied by WHL without the prior written approval of the party that requested and ordered the analysis.

6. All conducted methods are established, and test plan approved, by the customer.

Revision History

Revision	Date	Update Information	Technician
329151.1	18-Nov-2025	Documentation & Packaging External Visual Inspection	PL0366