

Product Analysis Report

Work Order:	172524	Quantity Received:	2200
Customer:	FireAlps Hungary Kft	Quantity Inspected:	13
PO Number:	N/A	Report Date/Time:	7/30/21 9:46 AM
Prepared By:	Harry	Approved by:	Niel Colico

PRODUCT INFORMATION

Part Number:	TXS0108EZXYR	Package Type:	UFBGA-20
Manufacturer:	Texas Instruments		
Product Description:	8-Bit Bi-directional, Level-Shifting, Voltage Translator for Open-Drain and Push-Pull Applications		
Datasheet Reference:	https://pdf1.alldatasheet.com/datasheet-pdf/view/229819/TI/TXS0108EZXYR.html		

REPORT SUMMARY

Result:	Unused	Risk Level:	
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2200 pieces of Texas Instruments TXS0108EZXYR were received for analysis, from which 13 pieces were used for External Visual Inspection (EVI). Product arrived in tape and reel packaging.

Samples pass chemical solution and scrape tests for remarking and resurfacing, indicating that they are not remarked.

Samples exhibit test contact marks on solder balls. The samples exhibit minor contamination and scratches on the body. Minor observations are not considered problematic. Parts do not exhibit solder remnants or any indication of prior use.

Dimensions L, W, H, e and b were measured and were within manufacturer specification. The devices have the same exterior configuration as shown on the Package Outline Drawing (POD).

The parts are classified as "Unused".



Body (top-side)

Body (bottom-side)

EXTERNAL VISUAL INSPECTION

REMARKING / RESURFACING TEST

Pass: <input style="width: 80%;" type="text" value="1"/>	Fail: <input style="width: 80%;" type="text" value="0"/>
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MARKING INSPECTION

Pass: <input style="width: 80%;" type="text" value="13"/>	Fail: <input style="width: 80%;" type="text" value="0"/>	F.A.R.: <input style="width: 80%;" type="text" value="0"/>
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BODY INSPECTION

Pass: <input style="width: 80%;" type="text" value="13"/>	Fail: <input style="width: 80%;" type="text" value="0"/>	F.A.R.: <input style="width: 80%;" type="text" value="0"/>
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TERMINAL INSPECTION

Pass: <input style="width: 80%;" type="text" value="13"/>	Fail: <input style="width: 80%;" type="text" value="0"/>	F.A.R.: <input style="width: 80%;" type="text" value="0"/>
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MECHANICAL CHARACTERISTICS INSPECTION

Pass: <input style="width: 80%;" type="text" value="13"/>	Fail: <input style="width: 80%;" type="text" value="0"/>	F.A.R.: <input style="width: 80%;" type="text" value="0"/>
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DOCUMENT AND PACKAGE INSPECTION

Number of Boxes:	<input style="width: 80%;" type="text" value="1"/>
Document & Labels:	<input style="width: 80%;" type="text" value="Match"/>
Date Code:	<input style="width: 80%;" type="text" value="18"/>
Lot Code:	<input style="width: 80%;" type="text" value="No available information"/>

GENERAL INSPECTION

Package Carrier:	<input style="width: 80%;" type="text" value="Tape and reel"/>
ESD Protection:	<input style="width: 80%;" type="text" value="Yes"/>
MSL Protection:	<input style="width: 80%;" type="text" value="N/A"/>
Country of Mfg.:	<input style="width: 80%;" type="text" value="No available information"/>

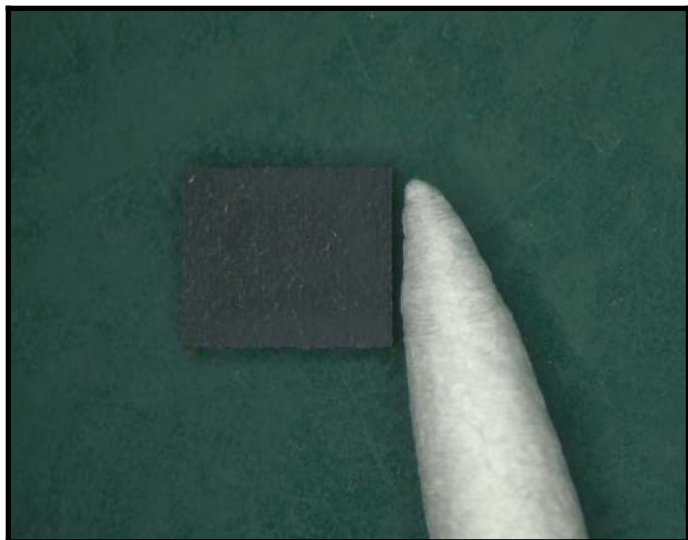
Address:
White Horse Laboratories Ltd.

Phone Number
86-755-8374-1887

URL:
<http://whitehorselabs.com>

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Wo Number	172524
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Marking (top-side) Before chemical resurfacing test

Marking (top-side) After chemical resurfacing test (Pass)



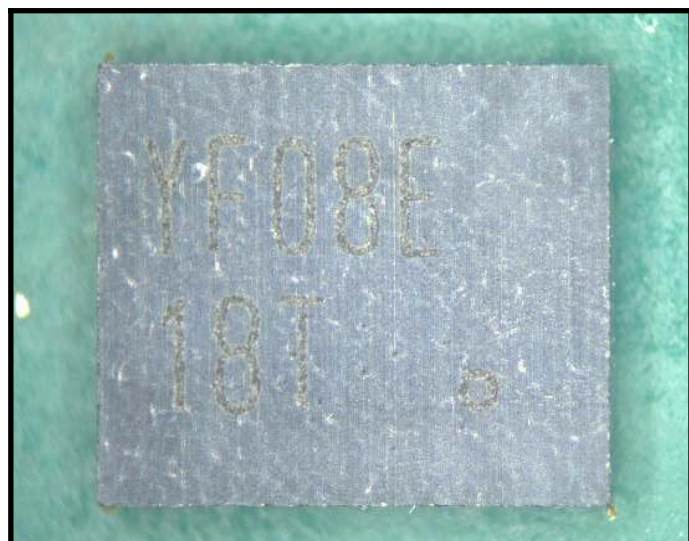
Marking (top-side) Before mechanical resurfacing test

Marking (top-side) After mechanical resurfacing test (Pass)

ORDERING INFORMATION

T _A	PACKAGE ⁽¹⁾⁽²⁾		ORDERABLE PART NUMBER	TOP-SIDE MARKING
-40°C to 85°C	QFN - RGY	Reel of 1000	TXS0108ERGYR	YF08E
	TSSOP - PW	Reel of 2000	TXS0108EPWR	YF08E
	UFPGA - ZXY	Reel of 2500	TXS0108EZXYR	YF08E

- (1) Package drawings, thermal data, and symbolization are available at www.ti.com/package.
- (2) For the most current package and ordering information, see the Package Option Addendum at the end of this document, or see the TI website at www.ti.com.



Marking

Marking (top-side)

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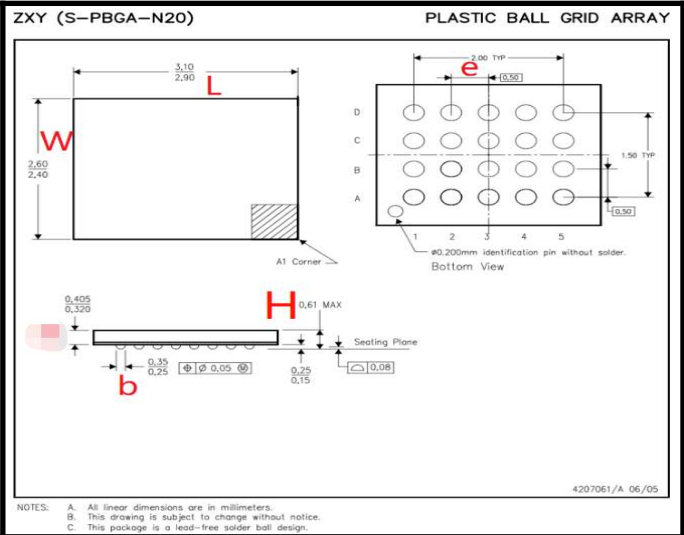
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PACKAGING INFORMATION

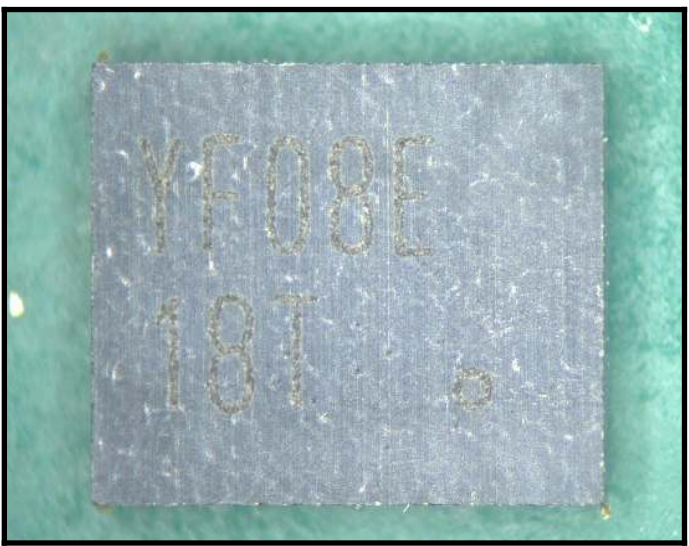
Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
TXS0108EDGVR	PREVIEW	TVSOP	DGV	20	2000	TBD	Call TI	Call TI
TXS0108EGYR	PREVIEW	BGA MI CROSTA R JUNI OR	GXY	20	2500	TBD	Call TI	Call TI
TXS0108EPWR	ACTIVE	TSSOP	PW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
TXS0108EPWRG4	ACTIVE	TSSOP	PW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
TXS0108ERGYR	ACTIVE	QFN	RGY	20	1000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR
TXS0108EZXYR	ACTIVE	BGA MI CROSTA R JUNI OR	ZXY	20	2500	Green (RoHS & no Sb/Br)	SNAGCU	Level-1-260C-UNLIM



Ordering Information

Mechanical Dimensions

Package Outline Drawing



Mechanical Dimensions

Part as shown on POD

Mechanical Dimensions

Part as shown on POD



Mechanical Dimensions

Part as shown on POD

Dimension Measurement

L=3.04mm(Pass)

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Wo Number 172524



Dimension Measurement	W=2.55mm(Pass)
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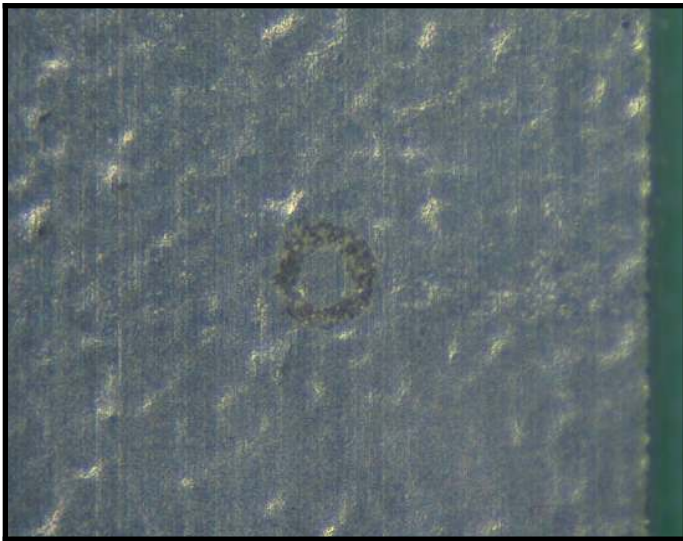
Dimension Measurement	H=0.60mm(Pass)
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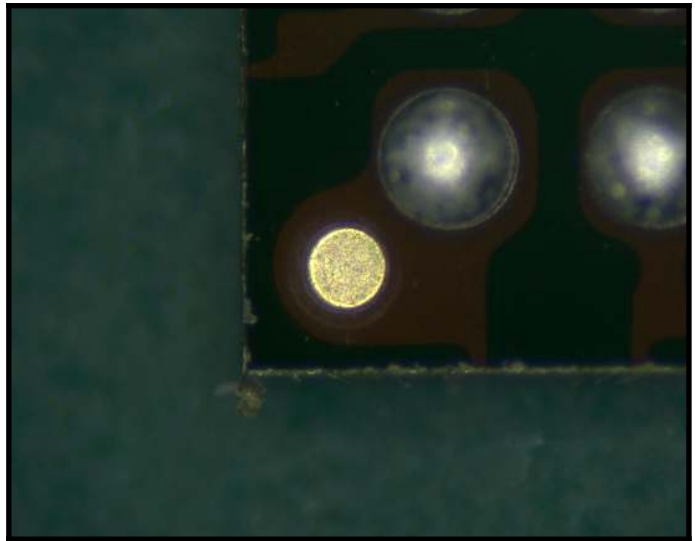
Dimension Measurement	b=0.31mm(Pass)
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Dimension Measurement	e=0.50mm(Pass)
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Body (top-side)	Pin 1 indicator
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Body (bottom-side)	Pin 1 indicator
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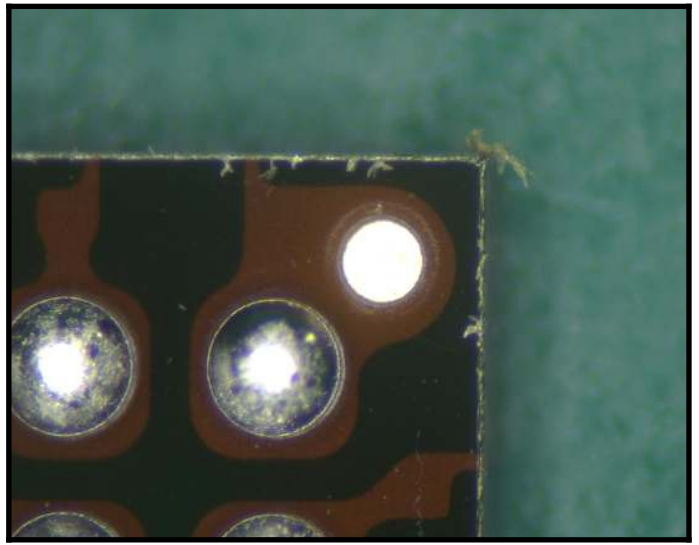
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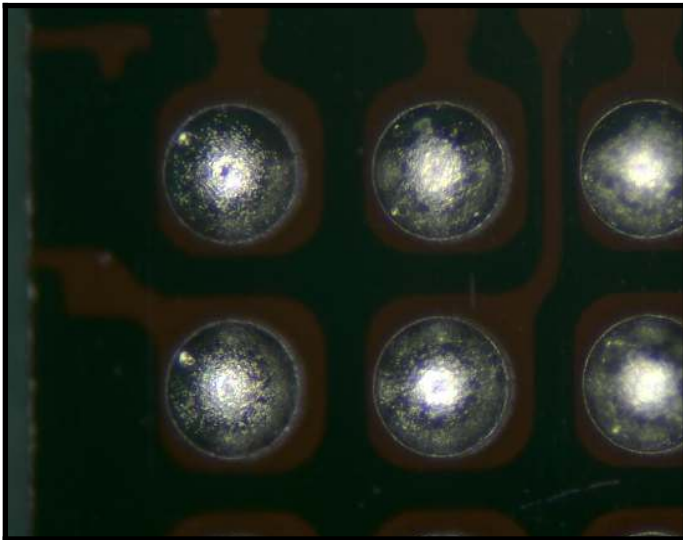
Wo Number	172524
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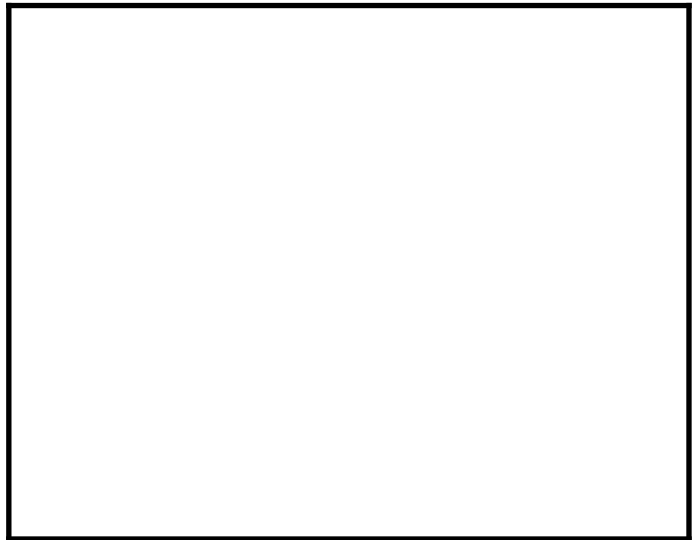
Body	Scratches, 1pc
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Body	Contamination, 13pcs
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Terminal	Test contact marks
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Packaging (Box)	Box as received
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Packaging (MBB)	Moisture Barrier Bag (MBB)
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Wo Number	172524
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Packaging (Carrier)	Reel
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Packaging (MBB)	Desiccant
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Packaging (Carrier)	Reel label
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Packaging (Carrier)	Parts aligned in tape
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Definitions (as defined within AS6081):

- KNOWN AUTHENTIC PART (Golden Sample) – A part which has either been purchased directly from the manufacturer, their authorized distributors, or authenticated by the manufacturer with supporting documentation.
- UNUSED – Electronic parts that have not been previously used (i.e., attached to a board or powered up since leaving the supply chain). Unused material can contain mixed date codes, lot codes, or countries of origin, and should be received in original factory or third-party packaging. The material may have minor scratches or other physical defects as a result of handling, but the leads should be in good condition and should not be refurbished. The material should be guaranteed to meet the manufacturer's full specifications. Unused programmable parts should be received without having been previously programmed.
- USED (REFURBISHED OR PULLED) – Product that has been electrically charged and subsequently pulled or removed from a socket or other electronic application. Used product may be received in non-standard packaging, and may contain mixed lots, date codes, be from different facilities, etc. Parts may have physical defects such as scratches, slightly bent leads, test dots, faded markings, chemical residue or other signs of use, but the leads should be intact. Used product may be sold with a limited warranty, and programmable parts may still contain partial or complete programming which could impact the part's functionality.
- REFURBISHED – Parts that have been renovated to restore them to a "like new" condition, e.g., leaded parts may have had their leads realigned and re-tinned and subjected to cleaning agents and chemical processing.
- COUNTERFEIT PART – A fraudulent part that has been confirmed to be a copy, imitation, or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right.

Report Explanations:

- "Result" is the condition of devices, per the definitions provided by AS6081 (above) with the addition of "Remarked", which is any device whose original marking has been replaced. A device could, for example, be Unused but also have been remarked, so the Result would be "Unused/Remarked".
- "Risk Factor" is a calculation of the remaining risk of a device being counterfeit or substandard from the results of the processes conducted, and risk associated with not conducting some processes.
- 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.
- "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".
- Note that definitions are as defined within the AS6081 standard.

Notes and Disclaimers

1. Product analysis results are applicable for the inspected samples only.
2. Inspection methods are assigned Pass/Fail Criteria based upon JEDEC JES9B manufacturing standard. Military-grade products are inspected to MIL-STD specifications. Observations outside of those tolerances are deemed to make the product unfit for use.
3. Observations defined by IDEA-STD-1010B, AS6081, AS6171 and WHL expertise and experimentation affect the risk level and classification of the inspected product.
4. "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.
5. All source and measurement equipment are calibrated and suitable for the processes conducted with calibration certifications available upon request.
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7. 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.
8. All conducted methods are established, and test plan approved, by the customer.
9. White Horse Laboratories is an ISO 9001:2015 and ANSI/ESD S20.20-2014 certified company.

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