

VITAL
ELECTRONICS



**Counterfeit Risk
Mitigation Programme**

Counterfeit Risk Mitigation Programme

Introducing our comprehensive 3-level Counterfeit Risk Mitigation Programme, meticulously designed to empower our customers with confidence.



Vital 72

Carried out as standard with no additional cost, this package includes our in-house 72 point inspection process and covers Levels A1 and A2 from the AS6081 matrix.

Vital 72+

This package includes all aspects of Vital 72 with the addition of levels A4* and A5* from the AS6081 matrix, plus solderability testing and a detailed inspection report.

Vital AS6081

Fully compliant with A1, A2, A3, A4, A5 and A6 from the AS6081 test and inspection matrix satisfies all our customers requiring full AS6081 compliance.



Vital 72

Cost = Free of Charge

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72 Point Inspection
Process



A1, A2
(Level A) Testing
from AS6081

VitalIn-house Inspection

A1 Document & Packaging Inspection

A2 External Visual Inspection

ERAI Database Search

Datasheet Research

Acetone Test

Scrape Test

Dimensions Verification



Vital 72+

Cost = £475
Per date code



72+ Point
Inspection Process



A1, A2, A4*, A5*
(Level A) Testing
from AS6081

Vital In-house Inspection

A1 Document & Packaging Inspection

A2 External Visual Inspection

A4* X-Ray Inspection

A5* XRF – Lead Finish Evaluation

Solderability Test

ERAI Database Search

Datasheet Research

Acetone Test

Scrape Test

Dimensions Verification

Detailed Inspection Report

*A4 & A5 scaled down sample size to 1 piece



Vital AS6081

Cost = POA

Dependent on sample size, date codes,
component package and lead time required

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A1, A2, A3, A4, A5,
A6 (Level A) from
AS6081

Vital In-house Inspection

A1 Document & Packaging Inspection

A2 External Visual Inspection

A3 Remarking & Resurfacing

A4 X-Ray Inspection

A5 XRF – Lead Finish Evaluation

A6 Delid/Decapsulation Internal
Analysis

ERAI Database Search

Detailed Inspection Report

*Additional tests available on request

Test / Inspection

Minimum Required Tests	Minimum Sample Size		Level
	Lot size 200 or greater Devices	Lot size 1-199 Devices (See Note 1)	Level A
Documentation & Packing Documentation and packaging inspection (4.2.6.4.1) (Non-destructive)	All Devices	All Devices	A1
External Visual Inspection Documentation and packaging inspection (4.2.6.4.1) (Non-destructive) a. General (4.2.6.4.2.1) (Non-destructive) b. Detailed (4.2.6.4.2.1) (Non-destructive)	All Devices 122 Devices	All Devices 122 or all Devices, whichever is less	A2
Remarking & Resurfacing (destructive) Solvent Test for Remarking (4.2.6.4.3.A) (Destructive) Solvent Test for Resurfacing (4.2.6.4.3.B) (Destructive)	See Note 2 3 Devices 3 Devices	See Note 2 3 Devices 3 Devices	A3
Radiological (X-Ray) Inspection X-Ray inspection (4.2.6.4.4) (Non-destructive)	45 Devices	45 Devices or all, whichever is less	A4
Lead Finish Evaluation (XRF or EDS/EDX) XRF (Non-destructive) or EDS/EDX (Destructive) (4.2.6.4.5) (Appendix C.1)	See note 3 3 Devices	See note 3 3 Devices	A5
Delid/Decapsulation Internal Analysis (Destructive) Delid/Decapsulation (4.2.6.4.6) (Destructive)	See note 4 3 Devices	See note 4 3 Devices	A6

Additional Tests

As agreed between customer and organisation

	Minimum Sample Size		Level
	Lot size 200 or greater Devices	Lot size 1-199 Devices (See Note 1)	
Remarking & Resurfacing (Destructive) Scanning Electron Microscope (4.2.6.4.3.C) (Destructive) Quantitative Surface Analysis (4.2.6.4.3.D) (Non-destructive)	See note 2 3 Devices 5 Devices	See note 2 3 Devices 5 Devices	A3 Option
Thermal Testing Thermal Cycling Test (Appendix C.2)	All Devices	All Devices	Level B
Electrical Testing Electrical Testing (Appendix C.3)	116 Devices	All Devices	Level C
Burn-In Burn-In (Pre & Post) (Appendix C.4)	45 Devices	45 Devices or all, whichever is less	Level D
Hermeticity Verification (Fine & Gross Leak) Hermeticity Verification (Fine & Gross Leak) (Appendix C.5)	All Devices	All Devices	Level E
Scanning Acoustic Microscopy (SAM) Scanning Acoustic Microscopy (SAM) (Appendix C.6)	As Specified	As Specified	Level F
Other Other tests and inspections (Solderability)	As Specified	As Specified	Level G

Notes

1

For very small lot sizes, less than ten (10) devices, this 'destruct' test sample size may be reduced to one (1) device at the discretion of the Project Engineer with Quality Assurance concurrence and Customer approval.

2

Devices for the Remarking & Resurfacing Inspection shall be selected from the Detailed External Visual Inspection lot.

3

Devices with possible lead finish anomalies shall be selected from the Detailed External Visual Inspection lot.

4

Devices for the Delid/Decapsulation Internal Analysis shall be selected from the Remarking & Resurfacing Inspection lot.



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