16 IDEA Inspection Process Guidelines Checklist

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This checklist shall be used in conjunction with all requirements stated in IDEA-STD-1010 and ANSI/ESD S20.20
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1 General Carton Inspection
(Section 10.1.5.1)

- ❑ Weigh product contents and record
- ❑ Inspect outer package for evidence of damage
- ❑ Photograph/record any findings
- ❑ Inspect the sealing tape for evidence of tampering
- ❑ If damage or evidence of tampering is present note findings and alert vendor and carrier for a possible freight claim

2 Outer Product Carton Inspection
(Section 10.1.5.2)

- ❑ Inspect package for any signs of damage or signs of being opened
- ❑ Photograph contents while in box if they exhibit damage, tampering, or nonconformance
- ❑ Photograph labels and sealing tape if they exhibit damage, tampering, or nonconformance
- ❑ Inspect sealing tapes
- ❑ Inspect labels and verify data
- ❑ Examine the box and compare with manufacturer's website or golden sample
- ❑ Scan barcode to verify information is readable

3 Inner Contents Inspection
(Section 10.1.5.3)

- ❑ Inspect inner contents, packaging, bag seal and labels; photograph if they exhibit damage, tampering, or nonconformance
- ❑ Inspect bag seal
- ❑ Compare inner labels with outer carton labels and photograph
- ❑ Verify bag seal date with product date code
- ❑ Scan the bar code to verify the information is readable and matches the product identification; record results
- ❑ Verify the product is properly packaged for the required Moisture Sensitivity Level (MSL) and compare the MSL level with datasheet
- ❑ Verify the package is ESD compliant

4 Inspection of Carrier
(Section 10.1.5.4)

Read and record status of Humidity Indicator Card (HIC). To test card for validity, see J-STD-033 for HIC test.

Tubes:

- ❑ If factory packaged, verify tubes are imprinted with manufacturer name/ logo
- ❑ Verify all tubes are the same length and look clean and new (not yellowed or excessively scratched)
- ❑ Verify parts in the tube are all oriented the same direction
- ❑ Verify quantity of parts in tubes is consistent
- ❑ Verify all tubes have stoppers and they are the same in each tube

Reels:

- ❑ Verify labels and label placement
- ❑ Scan and verify that barcode scan and printed information on label are consistent with each other
- ❑ Verify that size of reel and the material (paper/plastic) match manufacturer spec sheet
- ❑ Verify factory reel has proper leader tape
- ❑ Verify reel count (no empty pockets) and cover film is properly attached
- ❑ Compare part orientation in tape with manufacturer spec sheet and verify the parts oriented in the tape are consistent
- ❑ Verify that there are no splices or cuts in the tape

Trays:

- ❑ Verify the color and width of the banding is what is expected
- ❑ Note if the banding has any preprinted markings
- ❑ Verify that the trays are oriented the same way
- ❑ Verify that there is a top tray to protect the parts
- ❑ Verify and record if covered by cardboard and verify if cardboard is anti-static
- ❑ Verify the chips' orientation in the tray is consistent with no missing pieces
- ❑ Verify and record date/lot code of parts
- ❑ Verify that the date/lot code match outside packaging/label on the box, if any

Bulk:

- ❑ Verify count
- ❑ Verify the bag is correct for the type or parts received, (i.e.. ESD or MBB)
- ❑ Verify any mfg markings on the bag against manufacturer spec sheet
- ❑ Scan and verify that barcode scan and printed information on label are consistent with each other
- ❑ Verify and record date/lot codes

Revision A

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Initial Inspection
(Section 10.2.1)

- ❑ Verify the part number, manufacturer and quantity match the purchase order and packing slip
- ❑ Verify that there is an original factory label; ensure there is not a label over label
- ❑ Confirm the manufacturer's logo is printed on the label; inspect the spelling; the label should not be capable of being smudged
- ❑ Verify and record the country of origin, date codes, and lot codes and ensure they are consistent throughout the packaging
- ❑ Confirm the date code meets any restrictions specified on the purchase agreement
- ❑ Record any signs of damage to the product or packaging

Note: Refer to IDEA-STD-1010-B Section 10.2.1.4 for additional information on inspecting discrete components.

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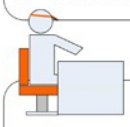
Detailed Inspection (Visual)
(Section 10.3.1)

- ❑ Verify the logo and markings match the manufacturer's specifications
- ❑ Confirm the markings are clear and do not appear to be re-marked or re-stamped
- ❑ Confirm the markings are consistent throughout the package type from part to part and on the top and bottom of the parts (placement, font type, color, and texture)
- ❑ Inspect laser marks for burn holes caused by aftermarket laser equipment
- ❑ Inspect for inconsistencies in package indents shape, size and locations
- ❑ Confirm that there are no burn or blister marks, or evidence of exposure to excessive heat
- ❑ Ensure there are no colored dots or ink marks on the tops of components indicating previous testing or programming, unless allowed or required by the purchase order.
- ❑ Look for flux or chemical residue and and tool marks or heat-sink markings indicating refurbished parts
- ❑ Confirm there are no cracks on the surface of the parts
- ❑ Verify the lead/pin count and formation or type of lead (DIP, SMB, Gull Wing, etc.) match the datasheet
- ❑ Verify pins or terminal layout/count match manufacturer specs
- ❑ Inspect for damaged leads (bent, scratched, broken, dented, missing, coplanarity, etc.) indicating the part has been salvaged or mishandled
- ❑ Ensure that leads are not oxidized, re-tinned with solder (re-balled for BGAs), show signs of corrosion, or contamination from foreign substances
- ❑ Look for leads that are too shiny for older date codes or too dull for new date codes; the pins should be similar in gloss or shine, color, and texture
- ❑ Confirm there are no scratches on the inside and outside of leads; scratches under the BGA spheres are typically a sign of re-balled parts.
- ❑ Inspect BGAs, LGAs, and any terminals, lugs, or connectors to ensure that the component has not been used, refurbished, mishandled or contaminated
- ❑ Photograph markings front and back for records
- ❑ If nonconforming, document and photograph nonconformance(s)



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Detailed Inspection (Solvents)
(Section 10.3.2)

- ❑ Perform Device Marking Test (test for remarking – Mineral Spirits & Alcohol swab)
- ❑ Perform Device Surface Test (test for blacktopping – Acetone swab)
- ❑ Perform Scrape Test (as needed)

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Detailed Inspection (The Mechanical Inspection)
(Section 10.3.3)

- ❑ Determine the min/max or acceptable tolerance range of each measurement being taken from the mfr datasheet
- ❑ Measure, verify and record the package dimensions
- ❑ Measure for Thickness Variation