

Source
(if in doubt
escalate to
next check)

FLO03/08

Material Inspection Guidelines

Conformance needs to be checked for every batch

TRACEABLE SOURCE

TRUSTED SOURCE

PRIOR APPROVAL SOURCE AND INCREASED INSPECTION

Check 1

Conformance with Purchase Order

- Check for evidence of external damage.
- Part Number, Quantity, Date Code, Manufacturer & Packaging (tube, tray, reel, etc.).

Check 2

Documentation and Packaging

- Manufacturer sealed tape & labels?
- Changes or alterations to manufacturer packaging?
- Check labels and spelling for consistency.
- Check for poor use of English, misspelled words, alterations or changes to the documentation.
- Is the manufacturer's logo consistent across labels?
- Check ESD/MSL packaging and ensure dry pack integrity: MBB, HIC and desiccant.
- Do lot codes and date codes on the packaging/labels match the lot & date codes on the parts?
- Scan barcodes on manufacturer bags when parts don't come from traceable source – they need to scan and match what is printed.
- Damage to tube, reel or trays.
- Incorrect tray/tube/reel size used resulting in damaged parts.

Check 3

Device irregularities and part markings

- Different pin 1 orientation in tray, tube or tape and reel?
- Marking style (e.g. fonts, colour, serialisation, spacing or placement) for same date/lot code?
- Country of Origin consistent across devices?
- Body moulds/backside markings for same date/lot code?
- Multiple date or lot codes in the same reel/tray/package?
- Uneven thickness of packages? Signs of blacktopping?
- Colour or texture discrepancy between top and bottom of the part?
- Corrosion on body or exposed area of leadframe?
- Test dots, dirt, sand or debris?
- Different corner radius between top and bottom part? Evidence of sanding or ridges in the surface?
- Rough surface texture in the usually smooth pin 1 indicator area?
- Poor quality ink or laser markings?
- Chips out of the package corners or body?
- Devices consistent with age and condition?

Check 4

Leads/balls condition

- Pins clean and free from contaminants?
- Are leads straight and properly aligned?
- Uniform colour? Insertion marks? Excessive or uneven plating?
- Do the leads show any signs of use, age, oxidation or tarnishing?
- Are any leads broken, missing, bent or damaged?
- Scratches under balls? Solder mask damage, touch-up or repair?
- Debris or residue between balls?
- Discolouration, dirt or residue on balls or columns?
- Uniform size and shape of balls?

Check 5

Remarking and resurfacing

- Remarking test: use IPA on non-resin packages with ink/printed markings.
- Resurfacing test: use acetone in plastic/resin packages and laser markings.
- Directional sanding marks, previous 'ghost' marks or difference in texture visible after test.

Check 6

Previous Receipts

- Compare photographs with previous shipments on Global Trader.
- verify part marking against Datasheet if no previous receipts available
- Is the manufacturer logo consistent with receipts and their website?
- Compare package against part of the same family/series.
- Escalate with Quality.

Not under documentation control when printed. Please see QMS Website for current revision.