

J-STD-033 MSD Audit Preparation Checklist

A printable pre-audit walkthrough for moisture-sensitive device (MSD) handling, based on IPC/JEDEC J-STD-033. Companion to the Neotel guide at global.neotel.tech/ipc-jedec-j-std-033-msd-storage-guide/

1 · Audit readiness checklist

- All MSD components are identified with MSL level in your BOM and inventory system
- Floor life tracking method is documented (manual log, spreadsheet, or automated system)
- Floor life records are available for all MSD reels currently in use or recently used
- Dry storage equipment is calibrated and humidity levels are logged (continuous recording preferred)
- Humidity indicator cards are checked and recorded when moisture barrier bags are opened
- Bake oven calibration records are current
- Bake recovery logs are complete: date, time, temperature, duration, component ID, lot number
- Operators are trained on J-STD-033 requirements (training records available)
- Work instructions reference J-STD-033 for MSD handling procedures
- FIFO or FEFO rotation is enforced for MSD components
- Components that have exceeded floor life without baking are quarantined, not in production flow

2 · Floor-life quick reference (J-STD-033, 30°C / 60% RH)

MSL	Floor life after bag opening	MSL	Floor life after bag opening
1	Unlimited ($\leq 30^{\circ}\text{C}$ / 85% RH)	4	72 hours
2	1 year	5	48 hours
2a	4 weeks	5a	24 hours
3	168 hours	6	Time on label - mandatory bake before use

Dry storage below 10% RH pauses the floor-life clock. Storage below 5% RH is the operating point of automated dry cabinets.

3 · Five violations auditors find most often

- 1. No floor life tracking** - Bags are opened and reels go straight to the line with no record of exposure start time.
- 2. Improper bag resealing** - Moisture barrier bags resealed without fresh desiccant or without verifying the humidity indicator card.
- 3. Ignoring humidity indicator cards** - HIC readings not checked or not recorded at bag opening - the exposure history is unknown.
- 4. Dry cabinet door discipline** - Frequent or prolonged door openings; internal humidity never actually reaches the target set point.
- 5. Missing bake records** - Baking done without logging date, duration, temperature, and component lot - a traceability gap.

4 · Bake recovery basics

A component that exceeds floor life must be baked per the J-STD-033 bake tables (typical: 125°C for high-temperature-capable carriers, or 40°C low-temperature bake for standard tape and reel) or scrapped. Log

every bake. Prevention through dry storage is always cheaper than recovery - repeated bakes add oxidation risk to terminations.

5 · Automating this checklist

Every tracking item above (floor-life countdown, humidity logging, FEFO enforcement, audit evidence, bake flagging) is generated automatically by an automated dry storage system such as the Neotel SMD BOX MSD (<5% RH, supports all MSL levels, retrieval lockout on expired floor life). Learn more or request a quotation at global.neotel.tech/products/smd-box-series/smd-box-msd/