

# MCU Inspection Report Template

English inspection report template for microcontroller sourcing, BOM support, shortage recovery, and pre-shipment quality review. It can be used for incoming inspection, visual inspection, functional testing, outgoing inspection, and final shipment approval.

|              |  |                       |  |
|--------------|--|-----------------------|--|
| Customer:    |  | Report No.:           |  |
| Part Number: |  | Brand:                |  |
| Quantity:    |  | Date Code / Lot Code: |  |
| Inspector:   |  | Inspection Date:      |  |

## 1. Incoming Inspection

**Purpose:** Confirm that received MCU components match the approved sourcing request, quotation, BOM, and order details before they enter stock or shipment preparation.

- Manufacturer part number, brand, package, quantity, and ordering code
- Date code, lot code, country of origin, and manufacturer label details
- Packing method such as reel, tray, tube, ESD bag, or moisture barrier bag
- Customer requirements for RoHS, REACH, CoC, photos, or batch records

## 2. Visual Inspection

**Purpose:** Check visible condition and packaging integrity to reduce risks related to handling damage, incorrect labels, poor storage, or inconsistent batches.

- Package surface, pin condition, marking clarity, and visible defects
- Reel, tray, tube, bag, seal, label, and moisture indicator condition
- Consistency between label information, order details, and physical goods
- Photo records when requested by the buyer or quality team

## 3. Functional Testing

**Purpose:** Support sampling checks, programming checks, or basic functional review when the order and component type allow additional test handling.

- Sampling quantity and acceptance criteria confirmed by the customer
- Basic electrical or functional checks when applicable
- MCU programming, firmware preloading, or verification when requested
- Test result records, remarks, and abnormal issue escalation

## 4. Outgoing Inspection

**Purpose:** Confirm final shipment readiness before dispatch, especially for production BOM, shortage recovery, and time-sensitive EMS orders.

- Final model, brand, package, quantity, label, and packing review
- ESD-safe packing, moisture-sensitive handling, carton protection, and shipping label
- Document package review for CoC, RoHS, REACH, photos, or other requested files
- Final pass, conditional pass, hold, or reject conclusion before shipment

## Inspection Record Table

| Process             | Inspection Item              | Requirement / Check Point                                                           | Result                      | Remarks |
|---------------------|------------------------------|-------------------------------------------------------------------------------------|-----------------------------|---------|
| Incoming Inspection | Manufacturer Part Number     | Confirm full MPN including suffix, package, and ordering code                       | Pass / Fail / N/A           |         |
| Incoming Inspection | Brand / Manufacturer         | Check brand consistency against quotation, BOM, and customer approval               | Pass / Fail / N/A           |         |
| Incoming Inspection | Quantity                     | Verify received quantity and shipment quantity                                      | Pass / Fail / N/A           |         |
| Incoming Inspection | Date Code / Lot Code         | Review available date code, lot code, batch information, and label details          | Pass / Fail / N/A           |         |
| Incoming Inspection | Packaging Method             | Confirm reel, tray, tube, ESD bag, MBB, or other packaging method                   | Pass / Fail / N/A           |         |
| Visual Inspection   | Package Surface              | Check package surface, markings, pin condition, and visible defects                 | Pass / Fail / N/A           |         |
| Visual Inspection   | Label Condition              | Check manufacturer label clarity, consistency, and physical condition               | Pass / Fail / N/A           |         |
| Visual Inspection   | Reel / Tray / Tube Condition | Inspect deformation, broken seal, moisture exposure, or handling damage             | Pass / Fail / N/A           |         |
| Visual Inspection   | Photo Record                 | Attach or reference label photos, package photos, and inspection photos if required | Pass / Fail / N/A           |         |
| Functional Testing  | Sampling Quantity            | Record sampling quantity and sampling method if customer requests testing           | Pass / Fail / N/A           |         |
| Functional Testing  | Basic Electrical Check       | Record applicable electrical or functional check result                             | Pass / Fail / N/A           |         |
| Functional Testing  | Programming / Firmware Check | Record programming, firmware preloading, or verification status if requested        | Pass / Fail / N/A           |         |
| Functional Testing  | Abnormal Findings            | Record failure symptoms, abnormal readings, or escalation notes                     | Pass / Fail / N/A           |         |
| Outgoing Inspection | Final Part Confirmation      | Final check of model, brand, package, quantity, and customer order details          | Pass / Fail / N/A           |         |
| Outgoing Inspection | Shipping Packaging           | Check ESD protection, moisture barrier, carton protection, and shipping label       | Pass / Fail / N/A           |         |
| Outgoing Inspection | Document Package             | Confirm CoC, RoHS, REACH, label photos, or requested documents                      | Pass / Fail / N/A           |         |
| Outgoing Inspection | Final Conclusion             | Record Pass, Conditional Pass, Hold, or Reject before shipment                      | Pass / Fail / Hold / Reject |         |

**Final Conclusion:** Pass / Conditional Pass / Hold / Reject

**Important:** Inspection scope, testing availability, document availability, and sample handling may vary by manufacturer, part number, source, quantity, and buyer requirements. MCU alternatives should be approved by the customer's engineering and quality teams before production use.

**Need MCU sourcing or inspection support?**

Contact Apex Component for MCU sourcing, stock checking, alternative part support, quality inspection, and traceability document review.  
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