

MCU Inspection Process Control

A practical pre-shipment inspection reference for OEM, EMS, and industrial buyers sourcing microcontroller components. Use this guide to understand the key checks Apex Component can support before MCU shipment.

Part Confirmation

Review model number, manufacturer, package, ordering code, quantity, and datasheet consistency.

Traceability Review

Check label details, date code, lot code, packaging information, and available batch records.

Shipment Readiness

Inspect packaging, ESD protection, moisture-sensitive handling, and final order details before dispatch.

9-Step MCU Inspection Workflow With Image Notes



1

Incoming Check

Image note: Incoming inspection area for matching received MCU items with the approved BOM and quotation.

Confirm received MCU items against the purchase requirement, quotation, approved BOM, and customer sourcing request.

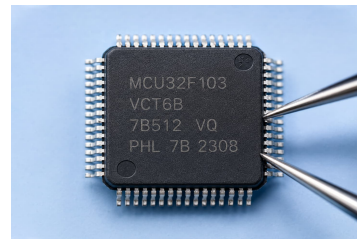


2

Label Verification

Image note: Manufacturer label review for part number, quantity, date code, lot code, and packing information.

Review manufacturer label details, package markings, date code, lot code, quantity, and traceability information.



3

Visual Inspection

Image note: Visual check of package surface, pins, trays, reels, and visible handling condition.

Inspect exterior condition, pin condition, package surface, tray or reel status, and visible handling issues.

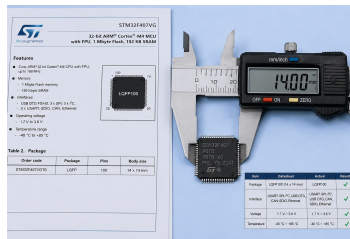


4

Packaging Check

Image note: ESD-safe packaging helps reduce electrostatic and transportation risk before shipment.

Check reel, tray, tube, ESD bag, moisture barrier bag, vacuum packing, and protective outer packaging.

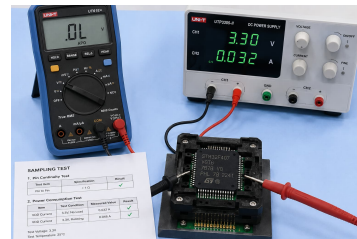


5

Datasheet Matching

Image note: Datasheet matching confirms package, voltage, interface, temperature grade, and ordering code.

Verify package, interface, voltage, temperature grade, lifecycle status, and key ordering details.



6

Sampling Test

Image note: Sampling checks can support basic electrical or functional review when requested by the buyer.

Support basic electrical or functional sampling checks when required by the customer and suitable for the order.



7

Programming Test

Image note: MCU programming support may include firmware preloading or sampling checks based on requirements.

Support MCU programming or firmware preloading checks based on customer requirements and part suitability.



8

Final Shipment Review

Image note: Final review confirms model, quantity, label, packaging, and delivery details before dispatch.

Double-check model, quantity, label, packaging, delivery details, and customer document requirements.



9

Record Keeping

Image note: Batch and shipment record keeping supports follow-up communication and traceability review.

Archive shipment and batch records to support follow-up traceability, quality communication, and repeat orders.

Buyer RFQ Checklist

- Full manufacturer part number
- Brand or approved manufacturer list
- Target quantity and delivery schedule
- Required date code or lot code, if any
- Package and packing method requirements
- RoHS, REACH, CoC, or label photo requirements
- Programming, sampling test, or inspection requests

Common MCU Risk Points

- Partial or incorrect part number suffix
- Wrong package, pin count, or ordering code
- Unconfirmed date code or lot code
- Missing packaging or storage requirements
- Alternative MCU used without engineering approval
- Compliance documents requested too late
- Firmware or programming requirements not stated

Important: Inspection and document availability may vary by part number, manufacturer, source, quantity, and order details. MCU alternatives should always be reviewed and approved by the customer's engineering and quality teams before use in production.

Send your MCU RFQ or BOM to Apex Component

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