WHAT SHOULD BE INCLUDED IN A CERTIFICATE OF CONFORMITY?

PURPOSE • TRACEABILITY • ACCOUNTABILITY

A CoC declares that the identified PCB shipment was manufactured, inspected and released against the controlled purchase order, drawing and specifications.

1 WHAT was supplied?

- Part number
- Revision
- Quantity
- Description

2 TO WHAT requirements?

- PO
- Drawing
- Specifications
- Class and addenda

3 FROM WHICH production?

- Lot
- Work order
- Date code
- Panel/coupon links

4 WHO released it?

- Authorized name
- Approval
- Date

CERTIFICATE OF CONFORMITY

CoC No.: COC-25-04789

CUSTOMER ABC Electronics Ltd.	SUPPLIER Novatronic PCB
PART NUMBER NT-1478-10L	REVISION B
DESCRIPTION 10 Layer High Density PCB	QUANTITY 100 Panels

COMPLIANCE

The items listed above were manufactured, inspected and tested in accordance with the following controlled requirements.

PURCHASE ORDER	PO-784512
DRAWING	DRW-1478 Rev B
SPECIFICATIONS	NT SPEC-001 Rev H
CLASS	CLASS 3
ADDENDA	Addendum 1, 2

PRODUCTION INFORMATION

LOT NUMBER	L25-1478-067
WORK ORDER	WO-563210
DATE CODE	2025-05-12
PANEL / COUPON LINKS	Panel ID: P01 – P05 Coupon ID: C01 – C05

RELEASED BY	APPROVAL	DATE
Jane Smith		2025-05-14

CERTIFICATE VS SUPPORTING EVIDENCE

CoC
DECLARATION AND RELEASE
Summarizes compliance and provides traceability to the controlled requirements.

ET REPORT
OPENS / SHORTS EVIDENCE
Confirms electrical continuity and insulation per the defined test criteria.

MICROSECTION
STRUCTURAL EVIDENCE
Verifies layer build, features and workmanship at the section plane.

IMPEDANCE REPORT
MEASURED COUPON RESULTS
Documents impedance values against targets over the specified frequency range.

MATERIAL / FINISH CERTIFICATES
SOURCE AND PROCESS EVIDENCE
Confirms materials, finishes and treatments meet the specified requirements.

CERTIFICATE PREPARATION AND RELEASE FLOW

ORDER REQUIREMENTS
PO, drawing, specifications, class and addenda are defined.

→ **MANUFACTURE**
Board is built to the controlled requirements and work instructions.

→ **INSPECT & TEST**
Electrical, dimensional and visual checks plus required tests are performed.

→ **AUTHORIZE RELEASE**
Authorized individual reviews and signs the Certificate of Conformity.

→ **RETAIN RECORDS**
CoC and supporting evidence are retained per the agreed period.

A COC IS THE FRONT PAGE OF THE QUALITY RECORD — NOT A SUBSTITUTE FOR OBJECTIVE EVIDENCE.

IDENTIFY THE EXACT SHIPMENT

SUPPLIER • CUSTOMER • CONFIGURATION • QUANTITY • LOT

CERTIFICATE OF CONFORMITY (CoC)

1 SUPPLIER & CERTIFICATE CONTROL

Legal Company Name	
Actual Manufacturing Site	
Supplier Code	
Unique CoC Number	
Issue Date (YYYY-MM-DD)	
Revision / Reissue Trail	
Page	of

2 CUSTOMER & ORDER

Customer Name	
PO Number and Revision	
Line Item	
Programme / Contract	
Delivery Note	

3 PCB CONFIGURATION

Exact Customer Part Number	
Exact Drawing / Design Revision	
Manufacturer Part Number	
Fabrication Data-set ID	
Product Description	
Rigid / Flex / Rigid-Flex	
Layer Count or HDI Identifier	(where required)

4 QUANTITY

Accepted Quantity	
Shipped Quantity	
Unit of Measure	
Panel Quantity	

Split Shipment or Partial Lot

☐ Full Shipment ☐ Partial Shipment ☐ Split Lot

5 PRODUCTION TRACEABILITY

Production Lot / Batch	
Work Order / Job	
Date Code (YYYY-MM-DD)	
Panel IDs	e.g., P01, P02, P03 ...
Coupon / Sample IDs	e.g., C01, C02 ...
Sub-Lot (if applicable)	



WEAK

"PCB boards — conforming"

NO PART NUMBER • NO REVISION • NO QUANTITY • NO LOT

NOT TRACEABLE. NOT ACCEPTABLE.

CONTROLLED

NP-4587 Rev C • 50 pcs • Lot L260814-03

EXACT PART NUMBER & REVISION

EXACT QUANTITY & UOM

IDENTIFIED LOT (TRACEABLE)

FULL LINK TO DOCUMENTS

NEVER RELEASE A BASE PART NUMBER WITHOUT THE EXACT REVISION.

DEFINE THE ACCEPTANCE BASIS

DRAWINGS • STANDARDS • CLASS • MATERIALS • FINISH

APPLICABLE CONTROLLED DOCUMENTS

PURCHASE ORDER
Defines what is being purchased.

FABRICATION DRAWING / DATA
Defines product geometry and requirements.

CUSTOMER SPECIFICATIONS
Defines general requirements and acceptance criteria.

IPC PERFORMANCE SPECIFICATION
Defines proven acceptance criteria for the product class.

ADDENDUM / SPECIAL REQUIREMENTS
Defines project-specific additions and exceptions that apply.

EXAMPLE ONLY: IPC-6012F • CLASS 3

⚠ Use the actual invoked revision and class.

DO NOT SAY "TO IPC STANDARDS"

without standard, revision and class.

Always state:

- Standard number (e.g., IPC-6012F)
- Revision (e.g., Rev F)
- Class (e.g., Class 3)

IPC CLASS DECLARATION

"Class 3 capable" is not the same as certifying this lot to invoked Class 3 requirements.

Acceptance is based on the invoked IPC specification, revision and class.

ADDENDUM / SPECIAL REQUIREMENTS

SPACE / MILITARY · MEDICAL · AUTOMOTIVE

Addenda apply only when invoked in the contract.

Never substitute vague "space grade" or similar non-specific wording.

TECHNICAL DECLARATIONS WHEN CONTROLLED

LAMINATE MANUFACTURER / GRADE
State manufacturer, material grade / system and approved equivalent.

STARTING / FINISHED COPPER WEIGHT & SPECIAL FOIL
Specify starting copper (e.g., 1 oz) and finished copper (e.g., 1 oz). State special foil (rolled, HVLP, ED, etc.) if used.

SURFACE FINISH & SELECTIVE FINISH
Specify overall surface finish (e.g., ENIG, ENEPIG, OSP, HASL) and any selective finish requirements.

GOLD / NICKEL THICKNESS CERTIFICATE
Provide certificate of plating thickness where required (e.g., ENIG Ni/Au thickness).

SOLDER MASK / LEGEND
State color, coverage, registration tolerance and legend requirements.

CONTROLLED IMPEDANCE REPORT
Reference required impedance values, tolerance and the report to be provided.

SPECIAL STRUCTURES
Declare structures such as HDI, metal-core or sequential lamination and any related requirements.

REGULATORY DECLARATIONS (WHEN CONTRACTUALLY APPLICABLE)

ROHS
Compliant to RoHS Directive (2011/65/EU + amendments).

REACH / SVHC
Compliant to REACH Regulation (EC) No 1907/2006 and SVHC requirements.

HALOGEN-FREE
Halogen-free per IPC-4101 or customer requirement.

UL RECOGNITION
State UL file number and product category if applicable.

COUNTRY OF ORIGIN
Declare country of origin only when contractually required.

Only declare what is applicable and supported by evidence.

Retain records.

⚠ **INCLUDE WHAT IS REQUIRED AND TRACEABLE — NOT UNSUPPORTED LOGOS OR GENERIC CLAIMS.**

LINK THE COC TO OBJECTIVE EVIDENCE

ELECTRICAL • STRUCTURAL • IMPEDANCE • DIMENSIONAL • RELIABILITY ///

CoC IS THE HUB

The Certificate of Conformance (CoC) identifies the lot and scope. All objective evidence must be traceable to it.



CERTIFICATE OF CONFORMANCE (CoC)

CoC-001245

PART NUMBER: NT-7200A-1

REVISION: A

LOT / DATE CODE: L260814-03

QUANTITY SHIPPED: 120 PCS

TRACEABLE REPORT IDs

CONTROLLED REPORTS

Objective evidence generated from the same lot/panel and coupon(s) identified in the CoC.

- **ET-82641** Electrical Test Report
- **MS-82641** Microsection Report
- **IMP-82641** Impedance Report
- **DIM-82641** Dimensional Report
- **CLN-82641** Cleanliness / Reliability
- **MAT-82641** Material / Finish Report

1 ELECTRICAL TEST



- Required test completed
- 100% if invoked
- Report Number: ET-82641
- Lot / Date Code: L260814-03
- Quantity Covered: 120 PCS

2 MICROSECTION / STRUCTURAL INTEGRITY



- Report Number: MS-82641
- Coupon / Panel ID: PNL-03C
- Lot / Date Code: L260814-03
- Thermal Stress / IST: Performed
- Pass / Fail: PASS

Evaluates microvia, backdrill, press-fit and layer integrity.

3 CONTROLLED IMPEDANCE

Ω

- Test Completed
- Report Number: IMP-82641
- Coupon / Panel ID: PNL-03C
- Lot / Date Code: L260814-03
- Measured Results: Retained
- Deviations Identified: Yes / No

4 DIMENSIONAL / SPECIAL INSPECTION



- FAI Completed (if required)
- Critical Dimensions Verified
- Finished Hole / Press-Fit Verified
- Bow / Twist Measured
- Backdrill Depth Verified
- Plating Thickness Verified
- Report Number: DIM-82641
- Lot / Date Code: L260814-03

5 CLEANLINESS / SOLDERABILITY / RELIABILITY



- Cleanliness: Performed
- Ionic Contamination / SIR: Performed
- Solderability: Performed
- Peel Strength: Performed
- Thermal Stress / IST: Performed
- CAF: Performed (if invoked)
- Report Number: CLN-82641
- Lot / Date Code: L260814-03

6 MATERIAL / FINISH / SUB-TIER



- Laminate Certificate: Included
- Surface-Finish Certificate: Included
- Independent Lab Reports: Included
- Outsourced Special-Process Records: Included
- Sub-Tier Traceability: Maintained
- Report Number: MAT-82641
- Lot / Date Code: L260814-03

MATCHING RULE – ALL MUST MATCH

SAME PART NUMBER ✓ + SAME REVISION ✓ + SAME LOT / DATE CODE ✓ + SAME COUPON / PANEL LINK ✓

CoC-001245
CERTIFICATE OF CONFORMANCE

LOT L260814-03
LOT / DATE CODE

ET-82641 / MS-82641 / IMP-82641
TRACEABLE REPORT IDs

A REPORT FROM ANOTHER LOT IS NOT EVIDENCE FOR THIS SHIPMENT.

Ensure every report is traceable to the CoC lot, coupon/panel and revision shown above.

DECLARE EXCEPTIONS AND AUTHORIZE RELEASE

DEVIATIONS • REWORK • SIGNATURE • RETENTION

Document any approved deviations or rework, obtain proper authorization, and retain objective evidence to ensure traceability and product acceptance.

CONFORMITY STATEMENT

We certify that the products identified on this certificate were manufactured, inspected and tested, as applicable, in accordance with the purchase order, approved drawing/data and referenced specifications, except for approved deviations identified herein.

NOTE: Adapt to contract and controlled quality-system language.

DEVIATIONS / CONCESSIONS

NCR NUMBER	Document the Nonconformance Report number.
DEVIATION / CONCESSION / WAIVER NUMBER	Assign a unique identifier.
CUSTOMER APPROVAL	Obtain prior written approval when required.
QUANTITY AFFECTED	State the quantity or percentage of product affected.
LOT APPLICABILITY	Identify lot/serial numbers or applicable range.
MARKING OR SEGREGATION	Describe how affected product is identified and controlled.

REWORK VS REPAIR

REWORK

Returns the product to the original requirement.

REPAIR

Does not fully restore the original condition and may require customer authorization.

REWORK / REPAIR DOCUMENTATION (AS APPLICABLE)

- Procedure or work instruction used
- Affected quantity and lot/serial identification
- Approval obtained (customer when required)
- Post-repair inspection and/or test results

AUTHORIZED RELEASE

PRINTED NAME	Name of the individual authorizing release.
JOB TITLE / FUNCTION	Title or function of the authorizer.
CONTROLLED SIGNATURE OR ELECTRONIC APPROVAL	Handwritten signature or validated electronic approval.
RELEASE DATE	Date the authorization is granted.
AUTHORIZATION TRACEABILITY	Reference to NCR/Deviation/Concession and related documents.
COMPANY STAMP (IF USED)	Stamp only if controlled and part of the system.

DIGITAL CERTIFICATE CONSIDERATIONS

- Approval must be attributable to a specific person.
- Alteration of the certificate requires revision and reissue.
- Date, time and identity are retained.
- Authenticity must be verifiable throughout retention period.
- Use PDF security or digital signature when required.

RETENTION OF DOCUMENTED INFORMATION

- CERTIFICATE OF CONFORMANCE (CoC)
- INSPECTION AND TEST RESULTS
- MATERIAL / FINISH CERTIFICATES
- TRAVELER AND LOT RECORDS
- DEVIATION APPROVALS AND CORRESPONDENCE
- CALIBRATION AND SUB-TIER RECORDS

Retain for the period defined in the contract or applicable requirements.

REVISION CONTROL AND COMMUNICATION TIMELINE

ORIGINAL COC
Issued per original requirements.

→

CORRECTED / REV A
Reissued when updates, corrections or deviations are approved.

→

REASON AND REFERENCE RETAINED
Link to NCR / Deviation / Concession and related approvals.

A COC MUST NEVER CONCEAL A KNOWN NONCONFORMANCE.

REVIEW, QUALIFY AND RELEASE

BUYER CHECK • SUPPLIER CHECK • RED FLAGS • FINAL CONTROL

1. RECEIVE SHIPMENT
2. MATCH PO & LINE
3. VERIFY PART & REVISION
4. MATCH LOT & REPORTS
5. REVIEW EXCEPTIONS
6. ACCEPT & ARCHIVE

BUYER INCOMING REVIEW

- [ ] Supplier / site approved
- [ ] Certificate number and date
- [ ] PO / line
- [ ] Exact part number and revision
- [ ] Quantity received and packing list
- [ ] Lot / date code and board marking
- [ ] IPC standard, revision, class and addendum
- [ ] Material and surface finish
- [ ] ET, microsection, impedance and special reports
- [ ] Approved deviations
- [ ] Authorized release (name, signature, date)
- [ ] Archive by receiving lot

MANUFACTURER PRE-SHIPMENT

- [ ] Correct customer / ship-to
- [ ] Released fabrication data
- [ ] Quantity per PO / line
- [ ] Lot / work order / date code
- [ ] All inspection / tests accepted
- [ ] Reports linked to same lot
- [ ] Material / finish correct
- [ ] Customer clauses satisfied
- [ ] Deviations and repairs disclosed
- [ ] Statement accurate and complete
- [ ] Authorized release (name, signature, date)
- [ ] Final quality record archived

RED FLAGS – STOP AND INVESTIGATE BEFORE ACCEPTING

- NO UNIQUE COC NUMBER
- MISSING REVISION
- GENERIC CLASS 3
- LOT MISMATCH
- HIDDEN NCR
- UNCONTROLLED SIGNATURE
- REPORT FROM ANOTHER LOT
- UNRETRIEVABLE RECORDS

CORE COC FIELD MATRIX – REQUIRED FOR TRACEABILITY

Certificate No.	Supplier / Site	Customer	PO / Line	Part No. / Rev	Description / Quantity	Lot / WO / Date Code	Drawing / Spec / Class / Addendum	Material / Finish	ET / Microsection / Impedance Reports (Yes / N/A)	Deviations (Ref.)	Authorized Name / Signature / Date
Unique identifier	Name and location	Buying organization	Purchase order and line item	Exact part number and revision	Board type and quantity shipped	Manufacturing lot or work order	IPC class and addendum (if any)	Base material and surface finish	Reports included and referenced to lot	List all deviations and approvals	Person who released the shipment

IDENTIFY WHAT WAS BUILT • STATE WHAT WAS REQUIRED • LINK THE EVIDENCE
DISCLOSE EXCEPTIONS • SHOW WHO RELEASED IT

A GOOD COC LETS AN ENGINEER RECONSTRUCT THE SHIPMENT YEARS LATER.