

AEC Universal Templates

CDC and others



What are Universal Templates?

- **Templates created by teams to provide a consistent data format**
- **Most AEC standards have at least two templates**
 - CDC(Q) – Certificate of Design, Construction and Qualification
(Defines construction and process of qualified part)
 - QTP – Qualification Test Plan
(Defines tests to be performed to qualify part)



CDC Updates (Q100)

- **Team Goals**

- Create flexible format that can be used for ALL Q-specs
- Q100 prioritized due to highest use and complexity
- Excel based, machine readable, with detailed help
- CDC defines device being qualified

- **Updated to Accommodate Current Supply Chain Realities**

- Allows multiple manufacturing locations if final product is identical (same materials / process)
- Added or modified fields to reflect current technologies
- Form allows for multiple IC die in single component package (Could accommodate chiplets in future)

NOTE: 'Q' dropped from form since form does not report any qualification results



Q100 CDC Released in 2025

- **Q100 Rev J1 will re-ballot to only reference NEW CDC in Appendix**
- **Q100 Rev J1 modified to insert overview page from CDC and remove old template (updated March 2026)**



CDC – Cover Page / Data Pages

- Uses a standard cover page
- Cover page can be used by other standards
- Data pages are device specific

AEC-Q100 Integrated Circuit (IC) Certificate of Design & Construction (CDC) Template

The following information is used to document construction of an Integrated Circuit (IC) conforming to AEC-Q100. The use of this template is optional, though encouraged as this document was developed to meet Automotive Tier 1 user requirements. All entries should be completed to the best of the supplier's ability.

This template can be downloaded from the AEC website at <http://www.aecouncil.com>.

Component Info:

| | | |
|------------------|-----------------------|--|
| #CDC-SUPPLIER | Supplier Name: | |
| #CDC-DEVICE NAME | Supplier Device Name: | |
| #CDC-DEVICE TYPE | Device Type: | |
| #CDC-PURPOSE | Document Purpose: | |

Customer Info should be filled if document is filled out for a specific customer and/or part number. If document is created with no customer defined, these fields should state "Not Applicable"

Customer Info:

| | |
|-----------------------|---|
| User Name (Customer): | 0 |
| User's Part Number: | 0 |

Required Reference Documents:

| | |
|---|---|
| Device Datasheet Title: (document name) | 0 |
| Package Outline Drawing (POD): | 0 |



CDC – Data Page Example

- Coded for machine readability
- ‘Locked’ to limit edits
- Help text to provide guidance
- Guided entry to limit errors
 - Drop down menus
 - Field restrictions



| Code # | Item Name (Primary Die + Package) | Supplier Response |
|----------------------|---|-------------------|
| #PART-ID | General Information | |
| #PART-ID-01 | User Name (Customer) | |
| #PART-ID-02 | User's Part Number | |
| #PART-ID-03 | Supplier Component Part Number | |
| #PART-ID-04 | Device Type Description | |
| #PART-ID-05 | Device Datasheet Title (Document Name) | |
| #PART-ID-06 | AEC Temperature Grade (0, 1, 2 or 3) | |
| #PART-ID-07 | Die Index #1 (Primary Die) | 1 |
| #PART-ID-08 | Qty of Die Index #1 | |
| #PART-ID-09 | Die Index #1 Type | |
| #SITE-FAB | Wafer Fabrication Location(s) | |
| #SITE-FAB1-00 | #1 - Wafer Manufacturer Name | |
| #SITE-FAB1-01 | #1 - IC (Wafer) Facility Name (plant #) | |
| #SITE-FAB1-02 | D-U-N-S # | |
| #SITE-FAB1-03 | Address | |
| #SITE-FAB1-04 | City | |
| #SITE-FAB1-05 | Postal Code | |
| #SITE-FAB1-06 | Country | |
| #SITE-FAB2-00 | #2 - Wafer Manufacturer Name | |
| #SITE-FAB2-01 | #2 - IC (Wafer) Facility Name (plant #) | |
| #SITE-FAB2-02 | D-U-N-S # | |
| #SITE-FAB2-03 | Address | |
| #SITE-FAB2-04 | City | |
| #SITE-FAB2-05 | Postal Code | |
| #SITE-FAB2-06 | Country | |

Demonstration / User Feedback

- **FEEDBACK**



Refresh Other Templates?

- If Q100 CDC is positive, we can expand to other standards
- **Examples:**
 - Q101
 - Q200
 - Etc.

