FA Process Flow - Standard

Important:
Estimates are task times only. Actual time to completion may vary due to various factors (i.e. device complexity, equipment availability, etc.).

Customer returns suspect device

Log device & Issue FA # (1 Hour)

Visual Inspection (0.5 Hour)

Curve Tracing (1 Hour)

ATE Testing (4 Hours)

Send Initial Response (1 Hour)

Bench Testing (4 Hours)

Device failed? (2 Hours)

No → Customized Testing

Yes →

Customized Testing
- Data Retention Bake
- Moisture Soak
- Temperature Cycling
- Dynamic Life Test (DLT)
- Endurance Cycling
- Take Measurements
- Review Schematics
- Review Source Code
- Decap & Reprogram
- ATE Test

NOTE: These tests/processes can be executed independently or combined. They may be performed by either FA or other Application Personnel.

Isolate Failing Block

Failure caught by Existing Test?

Yes →

No → Develop Test Screen

X-Ray if needed (1 Hour)

Acoustic Imaging (1 Hour)

Decap (1 Hour)

Emission/EMMI (2-48 Hours)

SEM (2-48 Hours)

E-Beam (2-48 Hours)

FIB/TEM (1-3 Days)

Microprobing if needed (1-20 Days)

Delayering (2-48 Hours)

Issue Final Report (8 Hours)

Failure Reproduced?

Yes →

No → Send back to customer for retest

Device failed after customer retest?

Yes → Customer and Microchip hold Technical Review

No → Send device to end user