



DEFENSE STANDARDIZATION PROGRAM

CERTIFICATION
for
MIL-PRF-38535

Part Manufacturers And Service Providers
for
Integrated Circuits

Revision G
05-24-00

Prepared by W. Fischer

DEFINITIONS

Transitional Certification---issued to facilities that comply with Appendix A, but need time to implement the other requirements of MIL-PRF-38535. See Appendix H, paragraph H.3.3.

Full Certification---issued to facilities that comply with all applicable requirements of MIL-PRF-38535 and Appendices B through J.

Service Provider (Contractor)---a fee-for-service organization that provides a production, test, or other service to a part manufacturer

Line---a set of equipment used for design, production, or testing, e.g., Fab 1, ceramic assembly, etc.

Flow---a particular process sequence used on a line, e.g., low voltage process on Fab 1, silver-glass die attach/aluminum wire bond/solder seal on ceramic assembly, etc.

Certification for MIL-PRF-38535
Revision G

SECTION 1
TRANSITIONAL CERTIFICATION

The following information for the operations to be certified is to be sent to
Defense Supply Center Columbus, DSCC-VQC
P. O. Box 3990
Columbus, OH 43216-5000

Indicate NA if not applicable.

1. Name, location, line, and flow for the following:
 - A. Circuit design
 - B. Mask fab
 - C. Wafer fab
 - D. Die supplier (manufacturer, distributor, etc)
 - E. Assembly
 - F. Assembly screening (M5004) and list of test methods.
 - G. Electrical test
 - H. Environmental test (M5005) and list of test methods.

2. (Part Manufacturer only). Part number, product family, etc., and description
 - A. Part types to be offered as 883-compliant
 - B. Part types to be offered as Class M on Standard Microcircuit Drawings (SMD's).
 - C. Part types to be offered as Class V and Class Q on SMD's
 - D. Military part types made to customer controlled drawings (SCD's).
 - E. Data book military part types that have been produced using the above facilities.

3. Product quality
 - A. Flowcharts, travelers, baselines, and any relevant data (including internal qualification information) demonstrating that the products, or services, to be offered as QML-38535 meet Appendix A of 38535 and M5007, M5004, and M5005 of 883). Details for any questionable products or services must be resolved prior to their listing in QML-38535.
 - B. Lot screening and lot sampling summary for the past two years

4. Facility history
 - A. Audit history, nonconformance summary, and status of each facility to be certified, during the last two years.
 - B. Discussion of the past and present quality standards used to control quality and reliability for each facility to be certified.

Certification for MIL-PRF-38535
Revision G

SECTION 1
TRANSITIONAL CERTIFICATION
(cont.)

5. Facilities not compliant with Appendix A
 - A. Determine any non-compliance (including contractors) and develop a schedule showing how compliance will be accomplished.
 - B. Perform Section 2.
 - C. After the above information has been reviewed, selected documents may be requested.
 - D. Facility audits may be conducted to determine if the manufacturer should receive Transitional Certification.

6. Facilities compliant with Appendix A, but not MIL-PRF-38535
 - A. Perform Section 2.
 - B. After the above information has been reviewed, selected documents may be requested.
 - C. Facility audits may be conducted to determine if the manufacturer should receive Transitional Certification.

7. All facilities are subject to an audit. The supplier is responsible for all auditing expenses incurred by the 38535 office if off-shore facilities are audited.

Certification for MIL-PRF-38535
Revision G

SECTION 2
FULL CERTIFICATION

Determine any non-compliance with MIL-PRF-38535 and Appendices B through J (including contractors). Indicate if not applicable (NA).

1. A schedule is to be sent to DSCC-VQC showing how compliance will be accomplished.
2. Alternate methods may be used to meet the requirements, provided it can be demonstrated that the quality and reliability issues of the requirement are addressed, or, compliance with a requirement is not necessary, provided it can be demonstrated that it is not applicable to the suppliers technologies. See 38535, page 3, paragraph 3.1.
3. The following paragraph numbers are listed in the belief that they will require the most effort to achieve Full Certification. These areas should be discussed with the 38535 office to ensure their understanding, and to determine if the supplier's current quality system may already meet the intent of some of the requirements.

<u>QM Program Topic</u>	<u>38535 requirement</u>	<u>38535 App. G requirement</u>
Technical Review Board	3.3.1	G.3.2
Status Report	none	G.3.2.3
QM Plan	3.3.2	G.3.3
Contin. Improve.Plan	none	G.3.3a, G.3.3.1h
SPC	none	G3.3c, G3.3.1i
RFQ, Quote, Order Conv.	none	G3.3.1b
Control of contractor	3.4.1.3.1	G.3.3.1r
<u>Proc. Cap. Demo.Topic</u>	<u>38535 requirement</u>	<u>38535 App. H requirement</u>
Circuit Design	none	H.3.2.1.1
Package Design	3.4.1.4.1	H.3.2.1.2
TCV Program	none	H.3.2.2.2
SEC Program	none	H.3.2.2.3
Package. Tech. Char.	none	H.3.2.4.2

4. After the above information has been reviewed, selected documents may be requested.
5. Facility audits may be conducted to determine if the manufacturer should receive Full Certification.
6. All facilities are subject to an audit. The supplier is responsible for all auditing expenses incurred by the 38535 office if off-shore facilities are audited.