

**UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

MICROSEMI CORPORATION,

Defendant.

Civil No:

Filed:

**DECLARATION OF THOMAS M. HESS**

I, Thomas M. Hess, hereby declare the following to be true and correct to the best of my personal knowledge and belief:

1. I am the Chief of the Active Devices Branch in the Document Standardization Division of the Defense Supply Center in Columbus, Ohio ("DSCC"). I have a degree in Systems Engineering and I have worked for DSCC and its predecessors for 25 years. My office's primary function is to set defense specifications and standards for military grade electronics components. It is my responsibility to see that this office carries out this function related to military grade semiconductors.
2. Highly reliable performance under demanding conditions is essential in military and space systems, where failure of a single component could result in failure of the mission. To ensure reliability and proper performance characteristics for use in military applications, production of these parts is regulated under Military Performance Specification 19500 ("MIL-PRF-19500"), which is administered by DSCC. DSCC maintains a list of qualified parts from specified suppliers known as the Qualified Manufacturers List, or QML. The QML is specifically intended for reference by military contractors and space system manufacturers.
3. The QML replaced the former list called the Qualified Parts List ("QPL"), and the two terms have been used interchangeably.
4. MIL-PRF-19500 establishes the requirements for different grades of reliability, known as Joint Army-Navy ("JAN") categories. There are three grades of QML parts, JAN, JANTX and JANTXV that are intended for general military applications. JAN parts are the lowest grade on the QML. They are manufactured according to the standards in MIL-PRF-19500 and samples

from each manufacturing batch must be tested. JANTX parts, the next level on the QML, are subject to additional testing, including a "burn-in" test where they are operated for extended periods so that defective parts can be detected and discarded. JANTXV, the next-highest grade part qualified by DSCC, and the grade just below JANS, includes the same testing as JANTX and also includes a visual inspection of each part prior to final assembly. Most manufacturers seek certification and qualification to produce the three lower levels of parts all at once.

5. The highest reliability grade, Joint Army-Navy Space ("JANS"), is intended for products qualified for use in space applications and other applications where the risk of failure mandates a high-reliability device. For example, parts used in these applications must be extremely reliable because they must survive not only the harsh space environment but it is difficult if not impossible to retrieve and repair a failed electronic system. JANS parts perform the same functions as other QML parts, but require additional process controls and product qualification standards. JANS parts are also subject to continuing manufacturing, documentation, and testing requirements that are more demanding than for other QML parts. JANS parts have a higher assurance of reliability and a longer expected life than other JAN-level parts. Changes in the manufacturing environment can affect the performance characteristics of QML parts, but the extra testing and documentation for JANS parts includes extensive tests on each manufacturing batch of JANS parts that ensure that a customer purchasing a JANS part knows that each part is expected to conform to the specifications set forth in MIL-PRF-19500.

I declare under penalties of perjury, that the foregoing is true and correct.  
Executed at Columbus, Ohio on December 11, 2008.

  
Thomas M. Hess