

ENGINEERING PRACTICE STUDY

Review and modernization MIL-PRF-3098,
General Specification for Quartz Crystal Units

27 June 2016

FINAL REPORT

Study Conducted By DLA Land and Maritime

Project Number: 5955-2016-001

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I. Objective

To gather information from military, manufacturing, and industry to improve MIL-PRF-3098 for current and future applications.

II. Background

It was reported that the specification is deficient in two ways.

Issue 1. The specification does not contain a provision for specifying the cut of the crystal.

Issue 2. A destructive test, Internal Gas Analysis, is required on 100% of samples for space-level devices, making it impossible to deliver parts.

The issues and the proposed changes for resolving them were circulated for comment, along with a request for further change proposals.

III. Results

No responses were received that did not concur with the proposed changes, nor were any further recommendations received.

IV. Conclusions

As there were no dissenting opinions on the changes, the proposed changes will be implemented in a revision of MIL-PRF-3098.

V. Recommendations

Issue 1. A paragraph will be added to Section 3 to allow slash sheets to define the crystal cut. Unless specified on a slash sheet, the crystal cut will be AT.

Issue 2. The Internal Gas Analysis test will be moved from Group A to Group B, sub-group I, for space-level devices.