

## **Adhesive sealed sensor reliability and test (Re-issue of ITT) - Objectives**

The objective of this activity is to help optimize moisture level testing and to validate the 5000ppm limit dictated by MIL-STD-883. In particular, two issues related to Image Sensors are of particular concerns and envisaged to be the core of this activity.

Firstly, moisture content limit determination of hermetically sealed devices which means the need to establish a more realistic and acceptable moisture level limit (instead of the current MIL-STD 5000ppm limit). This new limit, if determined, needs to be backed up by a proper and rigorous program of investigation and tests. The objective will also include investigation of failures due to high level moisture content.

The second issue is the development of a non-destructive moisture test method, to be consequently included in the CCD and CMOS image sensor generic specification ESCC 9020 [RD1]. The focus of the activity shall be to investigate moisture content of Image Sensors, including APS and CCD. However, in the early part of the activity and especially during Task-1, a general approach to optoelectronics packaging shall also be addressed.