

# Inspector Training Course to ESA Specifications ECSS-Q-ST-70-61, Q-ST-10-09

## Fact Sheet E02a

### ASTA Technology UK Ltd

This ESA-approved course will review the latest revisions of the ECSS-Q-ST-70-61 standard and is followed by an open book multiple choice test. The review of the standards will give an understanding of the contents of the specifications and why they are important. The test is designed to develop your ability to navigate the standards and find the relevant information in an efficient manner.

The requirements in the standards are designed to ensure process consistency and acceptable workmanship standards resulting in the production of high reliability Through Hole and Surface Mount Technologies, ECSS-Q-ST-70-61.

The course also has a practical test. The practical will be the QA inspection of others' PCB's. The inspection will then be inspected by the instructor to ensure an understanding of, and an ability to interpret the specifications. Also the delegate will need to show the ability to make confident decisions within the parameters of the specifications are demonstrated.

All necessary tools and equipment are supplied, although delegates are welcome to bring their own hand tools if desired.

#### Course aims

- To understand the requirements of ESA specification ECSS-Q-ST-70-61
- To identify the factors which influence the quality, reliability and performance of a solder joint
- To make a range of solder joints and understand hand-assembly methods necessary to produce reliable assemblies in accordance with ECSS-Q-ST-70-61
- To be able to inspect and evaluate electronic assemblies according to ECSS-Q-ST-70-61 & Q-ST-10-09

#### Course content

The theory of soft soldering \* Practical work in the achievement of a high reliability joint \* Examples of good and bad joints \* The interpretation of standards \* Work on joint failures with examples \* Mounting components and component structure \* Stress relief \* Inspection and evaluation of connections

#### Award

In accordance with ESA STR-258, an ESA approved, Category 2 Certificate, valid for 2 years, will be awarded on successful completion of the course.

This is an inspection-only certificate.

For personnel who wish to upgrade from operator to operator/inspector, please see course E02b.

#### Experience and pre-requisites

- Two years industrial QA experience in through-hole and Surface Mount technology, certified by the employer.
- Familiarity with electronic components and assembly processes for space electronics
- Good practical skills
- A positive attitude to high quality workmanship

**Duration, schedule and fees** 5 days – Please see the current Course Calendar for dates and fees.

#### Recertification

To renew certification for a further 2 years, a 2 - day recertification course E92 is available.

**Enquiries are welcome – please use the website [contact form](#) for security.**