

Termination of Semi-rigid Cable Assemblies to ECSS Specification ECSS-Q-ST-70-18

Fact Sheet E03

European Space Agency Training Centre (UK)

This ESA-approved course is designed to teach the practical skills and theories associated with the solder assembly, formation and preconditioning of semi-rigid R.F. cables. The course is based on the Solder Assembly requirements of ECSS-Q-ST-70-18, "The Preparation, Assembly and Mounting of R.F. Coaxial Cables.

This fully-documented course is intended for Production Operators, Quality Assurance Engineers and Design and Manufacturing Engineers.

The course has practical hands-on experience at every opportunity. All necessary tools and equipment are supplied, although delegates are welcome to bring their own hand tools if desired.

Course aims

- To review and understand the requirements of ECSS-Q-ST-70-18
- To identify the factors which influence the quality, reliability and performance of the assembly and its solder joints
- To develop appropriate skills and correct hand assembly methods
- To be able to examine and analyse faults associated with the assembly

Course content

Cable cutting * forming to correct bend radius * Thermal cycling process * Dielectric trimming * Connector body preparation * Gold removal and pretinning * Centre conductor trimming * Solder assembly of inner connector pin and outer shell * Dimensional and soldering inspection of all assembly stages * Theory and practice of R.F. connector faults * Losses and how to avoid them * Assembly cleaning and importance of final cleanliness confirmation

The course includes continuous assessment of the delegates' workmanship and concludes with a multi-choice question paper based on the ESA specification.

Award

In accordance with ESA-STR-2588, an ESA approved, Category 3 Certificate, valid for 2 years, will be awarded on successful completion of the course.

Experience and pre-requisites

Unless otherwise agreed, delegate shall already possess ESA approved certification for Hand Soldering to ESA Standard ECSS-Q-ST-70-08.

In accordance with ESA-STR-258, confirmation of Visual Acuity will be required.

Duration, schedule and fees

3 days – see the current course calendar for dates and fees

Course content, duration, dates and venue are negotiable to meet the special requirements of small groups of delegates from individual clients. This course can be combined with other short courses to create an integrated, cost effective training package.

Recertification

To renew certification for a further 2 years, a 1-day recertification course (E93) is available.

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

