

Service DATASHEET

Cleanroom Assembly

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1 Purpose and Scope

The present document provides detailed technical information about the ISO7 Cleanroom Assembly company services used for ECSS-conform space equipment production and assembly.

The definitions and glossary of terms from ECSS-S-ST-00-01C [AD 1] apply to this document.



1. Figure – The ISO7 Cleanroom and ISO8 airlock

2 Application and Key Features

2.1 APPLICATION

- ✓ **Space equipment components cleaning, preparation and permanent storage**
- ✓ **Space equipment electronics ECSS-conform soldering (as required)**
- ✓ **Space equipment assembly activities**
- ✓ **Space equipment flight unit storage**

2.2 KEY FEATURES

- ✓ **ISO7 validated environment with environment control and monitoring system**
 - Temperatures, humidity, air pressures and events are measured and logged
 - Calibrated Portable Airborne Particle Counter
- ✓ **ISO8 validated access airlock system and material airlock box**
 - Temperatures, humidity, air pressure and events are measured and logged
- ✓ **ECSS conform soldering station including**
 - Stereozoom soldering microscope
 - Soldering station with temperature control
 - Fume extractor
 - Digital soldering tip measurement unit
 - Calibrated portable airborne particle counter
 - Purified N2 available for cleaning purposes
- ✓ **Space equipment assembly station including**
 - Assembly tools
 - Calibrated torque drivers
 - Calibrated torque meter
 - Calibrated portable airborne particle counter
 - Purified N2 available for cleaning purposes
- ✓ **Safe and controlled storage area for any space flight units**
- ✓ **ESD-safe working environment with ESD-tester station**
- ✓ **Assigned storage areas and locations**

✓ **High level of safety assurance**

- The Cleanroom is located at a closed, guarded site with limited number of access
- Every area is video controlled
- Any access to the Cleanroom area is logged

✓ **ECSS certified soldering personnel and inspectors are available upon request though our partners**

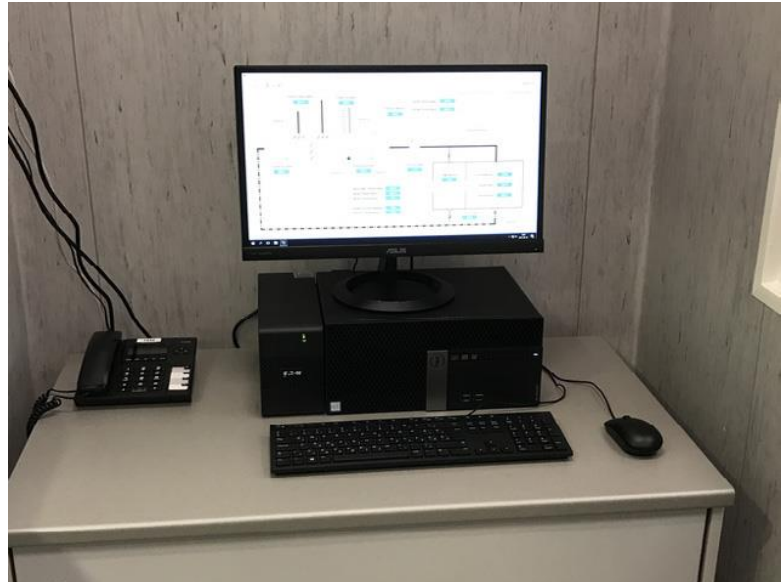
3 Accreditation and Audits

1. Table – Accreditation and Audits

Code	Title	Type	Validity	Remarks
ISO 9001:2015	Quality management system	Accreditation planned	N/A	Accreditation is in progress
ISO 17025:2018	General requirements for the competence of testing and calibration laboratories	Accreditation planned	N/A	Accreditation is in progress
ECSS-Q-ST-20-07C [AD 2]	Quality and safety assurance for space test centres	Audit by ESA	N/A	Audit was performed in 2018

4 ANNEX A – ISO7 Cleanroom

You find hereby pictures about the ISO7 Cleanroom and airlock system.



2. Figure – Cleanroom control and monitoring system (in the ISO8 airlock)



3. Figure – Cleanroom soldering workstation (with environmental parameter indicators on the wall)



4. Figure – Cleanroom cleaning and assembly workstation with material airlock box

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5 List of Abbreviations

AD	Applicable Documents
ECSS	European Cooperation for Space Standardization
RD	Reference Documents

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8 References

8.1 APPLICABLE AND NORMATIVE DOCUMENTS

2. Table – Applicable and Normative Documents

AD	Title	Reference	Version
[AD 1]	ECSS system - Glossary of terms	ECSS-S-ST-00-01C	1 Oct 2012
[AD 2]	Space product assurance – Quality and safety assurance for space test centres	ECSS-Q-ST-20-07C	1 Oct 2014

8.2 REFERENCE DOCUMENTS

3. Table – Reference Documents

RD	Title	Reference	Version
[RD 1]	-	-	-

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