



Tailoring of ECSS Standards

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Project: *Qualifica processo GaAs PHEMT 0.25 μm*

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1. INTRODUCTION

1.1 SCOPE OF THE DOCUMENT

The document establishes the tailoring for applicable ECSS Standards, in accordance to documents [RD 01], taking into consideration Project Risks and Characteristics. According to the project phases all management, quality and technical aspects are evaluated through an integrated approach.

The document has been produced by the ASI Program Office, in conjunction between Technology Division and Quality Division.

1.2 FIELD OF APPLICATION

The present document is applicable to the activities regarding the “Qualifica processo GaAs”, during the whole life cycle of the project.

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2.DOCUMENTS

2.1 APPLICABLE DOCUMENTS

[AD1] “Capitolato Tecnico” - Progetto: “Qualifica processo GaAs PHEMT 0.25 μm”,
ASI document n° DC-STE-2011-028

[AD2] Istruzione Operativa “ECSS Applicability Guidelines for ASI Programmes”
ASI document n° OP-IPC-2006-002

2.2 REFERENCE DOCUMENTS

[RD1] Istruzione Operativa “Linee guida per il Tailoring delle norme ECSS”
ASI document n° OP-IPC-2005-007

3.TAILORING OF THE STANDARD

Section 4 defines the list of standards which are applicable to the Contract.

The ECSS standard is intended to be used with the extension required by the project objectives, phases and characteristics.

The ECSS Standard shall be made applicable by the Main Contractor to all the supply chain.

Starting from the present document the Contractor shall develop the detailed tailoring of the ECSS Standard to be made applicable inside and to their subcontractors, on the basis of project characteristics.

The Contractor shall ensure application of ECSS Standards down to the lower level of the supply chain.

Instruction for the second level tailoring is included in Section 5.

RELEVANT REMARK: as ECSS Standards is under continuous development/update, the final list of the applicable standard shall be frozen at contract signature or at Kick-Off Meeting.

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4.“FIRST STEP TAILORING” TABLES

General documents

Project Characteristics and Risks (justification for selection)	ECSS Standard	Title	Applicability	Remarks
The Glossary and general terms are applicable	P-001-B	Glossary of terms	Yes	
The Policy and general principle are applicable	S-ST-00C	Description, implementation and general requirements	Yes	



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Series ECSS "M" – Management

Project Characteristics and Risks (justification for selection)	ECSS Standard	Title	Applicability	Remarks
Complex project/product/organization	M-ST-10C	Project planning and implementation	Yes	<i>ASI document OP-IPC-2005-002 "Instructions for WBS definition" is also applicable.</i>
A structured way to perform reviews is required also depending on project organization complexity.	M-ST-10-01C	Organisation and conduct of reviews	Yes	<i>In case of conflicts, ASI/contractual requirements apply.</i>
Configuration control is needed in order to ensure interface control also considering the project organization complexity	M- ST-40C	Configuration and Information management	Yes	<i>Incorporates/supersedes former M-40B and M-50B.</i>
Technological innovation could introduce risk factors. This standard must be used for risk analysis and control.	M- ST-80C	Risk management	Yes	



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Series ECSS "Q" – Product Assurance

Project Characteristics and Risks (justification for selection)	ECSS Standard	Title	Applicability	Remarks
Quality Assurance is applicable in order to guarantee achievement of contractual obligation and requirements	Q-ST-10C	Product assurance management	Yes	<i>Only the aspects regarding the present phases of the program</i>
Idem.	Q-ST-10-04-C	Critical Item Control	Yes	<i>The approach and what concerns the phases of the program</i>
Idem.	Q-ST-10-09C	Non Conformance Control System	Yes	<i>Criteria and management process</i>
Quality Assurance is applicable in order to guarantee achievement of contractual obligation and requirements	Q-ST-20C	Quality Assurance	Yes	
Selection of such quality aspects for future processes and activities	Q -20 -07A	Quality Assurance for test centres	Yes	<i>The approach and what concerns the actual phases of the program</i>
General rules for OTS utilization	Q-ST-20-10C	Off-the-shelf items utilization in space systems ECSS		<i>The approach and what concerns the present program</i>
The project includes a high technological risk factor. Reliability and availability aspects must be taken into consideration in order to fulfil project requirements.	Q-ST-30C	Dependability	Yes	<i>Only for what concerns the present phases of the program</i>
Systematic control of components will support in the achievement of project objectives.	Q-ST-60C	EEE Components Control	Yes	<i>Only for what concerns the activities of the project</i>
Design process and testing requirements shall be validated	Q-ST-60-12C	Design, selection, procurement and use of die form monolithic microwave	Yes	



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Project Characteristics and Risks (justification for selection)	ECSS Standard	Title	Applicability	Remarks
		integrated circuits (MMICs)		
Idem	Q-ST-60-05C	Space product assurance — Generic requirements for hybrids	Yes	
Systematic control of parts, material and processes will support in the achievement of project objectives	Q-ST-70C	Materials, Mechanical Parts and Processes	Yes	<i>General approach and requirements are applicable.</i>



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Series ECSS "E" – Engineering

Project Characteristics and Risks (justification for selection)	ECSS Standard	Title	Applicability	Remarks
A structured way to perform SE activities and technical requirements definition is mandatory.	E-ST-10C	System engineering general requirements	Yes	
Relevant for definition phase	E-ST-10-06C	Technical requirements specification	Yes	<i>For what concerns the process requirements definition.</i>
A structured way to perform verification activities is mandatory.	E-ST-10-02C	Verification	Yes	
Idem	E-10-03A	Testing	Yes	<i>For what concerns the system and subsystem requirements definition.</i>
Special components are foreseen.	E-ST-20C	Electrical & Electronic	Yes	
Idem	E-ST-32-08C	Materials	Yes	<i>Only the aspects relevant for (the phases of) the project</i>
Idem	E-ST-60-10C	Control performances	Yes	<i>The policy and general principles are applicable</i>



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5.“SECOND STEP TAILORING”

The Second Step Tailoring consists in the analysis and definition of the applicability of each requirements included in each single selected ECSS standard.

This process is developed by the Contractor, with the participation of ASI, if necessary for clarifications, and finally approved by ASI.

The Contractor shall repeat the Tailoring process (First and Second Step) with Subcontractor and require application of the Tailoring process at all level of the supply chain.

Each requirement included in the ECSS standard shall be analysed in order to assess its applicability and considered as follows, depending on the project characteristics:

A=Applicable

NA=Not Applicable

NR>New Requirement

MR=Modified Requirement

The following table shows an example of the required output.

Example:

ECSS-Y-XX Req. /paragr.	Requirement Description	Applicability	Differences
2.3.1	<Requirement description>	A	
2.3.4	<Requirement description>	NA	Not applicable.. <to be justified>
4.5	<Requirement description>	MR	To write modified requirement and justification, if relevant
5.6	<Requirement description>	NR	To write text of the new requirement