Template No.
CEMILAC_SYSGP_TRS_16

TEST RIG SPECIFICATION
for <LRU/SYSTEM Name>
for
<Platform Name>

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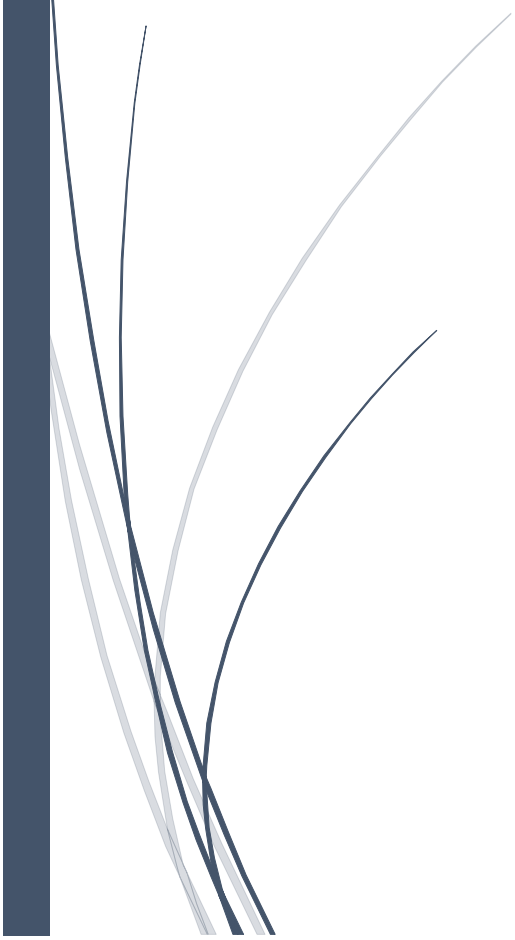

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	Issue No./ Rev No. :	<00X>	**Issue Date :**	<DD/MM/YYYY>
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Title:	**Project/System :**
TEST RIG SPECIFICATION of<LRU/Module Name> for <Platform name>	<System/Project Name>
	LRU/System Part No.
	<No.>
	Critical Level
	<A/B/C/D/E>

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Disclaimer:

This document is a guidance document. Applicable section / table rows may be considered. Any additional details may be added. Any not applicable section/ table rows may be deleted. The template is very general and vary with process to process followed by Development Agency. The document may be fine-tuned with the TAA for finalization.

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Amendment History

Issue No.	Issue Date	Brief Description of Amendment	Change Request Ref.	Affected Pages	Affected Section	Change Effective From
001		Initial Issue	NA	NA		All
002						Hw mod xx/ Sw ver x.x

TABLE OF CONTENTS

1.0 Introduction

<Give a brief overview of system for which is being evaluated using this test rig. Mention whether this test rig is Manual, automated, limited for hardware exercising, functional & performance checks etc.>

2.0 Purpose & Scope

<Mention the Purpose and scope of the Test rig specification. Mention whether this test rig is used at R&D lab level, production acceptance, I-level, O-level, D-level etc. >

3.0 Applicable Documents

<All the applicable documents of the system such as tech spec, ICD, FRS, etc., along with the document number, issue number and date of approval to be given here>

1. JSS 6625-01 : 1981
2. JSS 55555 : 2000 Revision 2 "Environmental Test Methods for Electronic and Electrical Equipment"
3. IMTAR-21 Version 2

4.0 Test rig configuration

<Include brief description of total test setup required for conducting the tests. Mention all the test jig/ rig/ instruments/ equipments/ simulators/ additional cards in PC etc. Mention the Firmware, COTS software components and custom developed software components embedded in the Test rig. Give context diagrams for easy understanding of the test setup and the Unit Under Test.>

5.0 Specification of the test rig

<Include the details of test rig such as interfaces to the UUT and the test engineer, and modes of operation. Give screen shots of GUI, if any. Give details of the layout of the test rig with buttons, lamps, switches, knobs, displays, keyboards etc. Specify type and no. of connectors required to be provided on the rig. >

5.1 Health check of Test rig

5.2 Operator Interface

5.3 Functional requirements

5.3.1 Simulation of *system1* I/O

<Mention the function of the test rig to simulate the I/Os given by the aircraft external system/ sensor/input source to the UUT. Include the data exchange and context of the external system w.r.t the UUT.
Include signal characteristics (level, range, accuracy, periodicity) for each of the bus/ discrete/ analog/ digital inputs to the UUT. Include impedance of the driving source, nature of the signal (balanced/ unbalanced/ single ended/ differential etc).
Mention where and how the outputs are available, failure indication etc>

5.3.2 Simulation of *system2* I/O

Etc.

5.4 Power supply Interface

<Include the power supply characteristics of the test rig and the power supply given to the UUT.>

5.5 Other Interfaces

<Mention whether any other test port or debug port facilities provided in the test rig which may not be a part of the actual aircraft environment>

5.6 Test rig Utility Requirements

<Mention if any other features are provided in the test rig, such as provision to test more than one LRU at a time, automated testing, recording of the relevant outputs, plotting of parameters, comparison to Golden unit etc>

6.0 Traceability Matrix

Sl.No.	Requirement Ref	Test rig Ref.	Remarks
	<Give reference of Technical Spec/ FRS/ICD section no. or Requirement id to indicate which requirement(s) is being tested>	*<Give the test rig spec which simulates conditions to test the corresponding requirement and how the outputs can be observed/ recorded. References of sec 5.0 can be given>*	

6.1 Conformances to aircraft environment

<List all the interfaces, cables, connectors etc in the test rig which are exactly same type, size and specifications as those available in the aircraft>

6.2 Constraints and limitations

<Mention whether there are any limitations in the lab level testing i.e. enforced design decisions like MMI issues, communication protocols, use of specific technology/ components etc. If some of the requirements cannot be tested or some test inputs likely to show invalid outputs etc. Mention the differences between the Test rig environment and the actual environment - such as possibility of closed loop control, dynamic variation of inputs, simulation of interdependent conditions, possibility of simulating failure conditions, usage of simulators in place of actual external systems etc>

7.0 Physical characteristics

<Include details of weight and dimensions, transportability (wheels) etc>

8.0 Class and Type of Test rig

<Mention whether the test rig is Class 1/ 2/3 4/ 5 as per the classification criteria in Section 4 of JSS 6625-01: 1981 & section 21.T1.4 of IMTAR ver 2.0 >

9.0 Environmental Specifications

<Include the specification of operating environment of the test rig. Include list of environmental tests applicable as per Section 4 of JSS 6625-01:1981. Give the test method, severities and duration for each of the test as per JSS 55555:2000 Rev 2 >

10.0 Product Deliverables

<Include delivery set list of test rig including cables, connectors, documentation>