**Issue/Rev No: 01/00**

**Date of Release: 8 Feb 2025**

Template No.

 CEMILAC\_SYSGP \_DD\_05

 **DERATING DOCUMENT of<LRU/SYSTEM Name>**

**for**

 **<Platform Name>**

|  |
| --- |
|  |
| <DESIGN AGENCYLOGO> | **Document No.** |  |
| **Issue No./** **Rev No. :** | <00X>/ | **Issue Date :** | <DD/MM/YYYY> |
| **Copy No. :**  | 01 of N | **No. of** **Pages :**  | < total no .of pages > |
| **Document Classification :** | 🞎 Secret 🞎 Confidential 🞎 Restricted 🞎 Unrestricted  |
| **Title:** | **Project/System :** |
| **DERATING DOCUMENT** **of<LRU/SYSTEM Name>for <Platform name>** | < Project/System Name> |
| **LRU/System Part No.**  |
| <No.> |
| **Critical Level** |
| <A/B/C/D/E> |
|  | **Name & Designation** | **Signature** |
| Prepared By | <Design Rep Name>, < Designation> <Agency Name> |  |
| Reviewed By | <Project Leader Name>, <Designation> <Agency Name><AWG/QA HOD Name>, <Designation> <Agency Name> |  |
| Approved By | <Project Leader Name>, <Designation><Design Agency><Officer\_Name>, <Designation>RCMA <Name> |  |
|  **<Design Firm Name & Address>** |

**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.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.no. | Description | Part No. | Ckt Symbol | Rated Operating Temp. | Stress Parameter | Rated Stress | Applied Stress | Derating factor | Remarks |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**Description** : Type of the component (Bus IC, SIP resistor, Tantalum capacitor etc)

**Part no**. : Manufacturer’s part number of the component

**Ckt Symbol** : Symbol for the component in the schematics (U1, Q4, R27, C5 etc)

**Rated Operating temperature** : As per the data sheet. Usually for MIL components it is -55ºC to +125ºC, for industrial components, -40ºC to +85ºC.

**Stress parameter** : The parameter which is being derated. For ex., for resistors stress parameter is wattage, for transistor it is VCEO, for ICs it is fan out, etc.

**Rated stress** : The rating of the stress parameter as per the data sheet of the component. For ex., resistor wattage rating can be 250 mW or 1 W etc.

**Applied Stress** : Maximum stress the component experiences as per the circuit design.

**Derating factor**: The ratio of applied stress to rated stress. For ex., if the rated stress is 40V and the drop across the component as per the circuit design is maximum of 5V, derating for the component is 0.125 (12.5%). It is advisable not to exceed derating of 50% for components used in the airborne equipments. If derating is more than 0.5, justification may be provided.

**Remarks** : Any other relevant information