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| --- | --- | --- | --- | --- | --- |
| Assembly: | Assembly Number: | | | | |
| Cognizant Engineer: | Date: | | | | |
|  | |  | | | |
| 1. Radiation Transport Analysis | | | | | |
| 1. Is the Radiation Transport Analysis current to the flight configuration? | | Yes |  | No |  |
| Radiation Transport Document Number: | | | | | |
|  | | | | | |
| 1. Total Ionizing Dose and Displacement Damage Dose | | | | | |
| 1. Has a worst-case analysis been performed for the assembly/instrument? | | Yes |  | No |  |
| WCA Document Number: | | | | | |
| If not, has a waiver to PROJECT Hardware Reliability Assurance Requirements been processed? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Do all parts meet the TID and DDD levels (with RDF) as specified in the PROJECT ERD? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT ERD? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Have all TID (inc. ELDRS) RLAT tests been completed as required by the PROJECT PPR? | | Yes |  | No |  |
| If yes, have the TID/ELDRS test results been incorporated in the WCA? | | Yes |  | No |  |
| If no, have waivers been generated against the PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Have all DDD RLAT tests been completed as required by the  PROJECT PPR? | | Yes |  | No |  |
| If yes, have the DDD test results been incorporated in the WCA? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
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| 3) Single Event Effects | | | | | |
| 1. Are all parts compliant with the SEL threshold criteria in the PROJECT PPR? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. r | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Are all parts compliant with the SEB de-rating criteria in the PROJECT PPR? Yes No | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Do all parts meet the SEU/SEFI threshold or the bit error rate specified in the PROJECT PPR? | | Yes |  | No |  |
| If not, does the assembly meet the non-intrusive and intrusive upset rate rate requirements at the card/assembly level? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Do all parts meet the SET threshold specified in the PROJECT PPR? | | Yes |  | No |  |
| If not, does the assembly meet performance requirements? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT PPR? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
| 1. Has a single event effects analysis been performed for the assembly/instrument? | | Yes |  | No |  |
| SEEA Document Number: | | | | | |
| If not, has a waiver to PROJECT Hardware Reliability Assurance Requirements been processed? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
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| Electro-static Discharge | | | | | |
| 1. Have all susceptible cables and interfaces, floating or isolated conductors, and dielectric materials been analyzed for susceptibility to Electro-static Discharge? | | Yes |  | No |  |
| If no, have waivers been generated against the PROJECT Electro-Static Discharge Requirements? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
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| 1. Flux Rate | | Yes |  | No |  |
| 1. Is the assembly susceptible to electron and proton peak flux? If no, go to 5. | | Yes |  | No |  |
| 1. Is the assembly required to function during and after exposure to the peak electron and proton flux specified in PROJECT Environmental Requirements Document? If no, go to 5. | | Yes |  | No |  |
| 1. If yes, does the assembly function within its performance specification during and after exposure to the peak flux specified in the PROJECT Environmental Requirements Document? | | Yes |  | No |  |
| Supporting Document Number: | | | | | |
| If the answer to 4(c) is no, have waivers to the PROJECT Environmental Requirements Document been processed? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
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| 1. Materials TID/Displacement Damage Dose Capability | | | | | |
| Do all non-metallic materials meet the requirements in the PROJECT M&P Plan after exposure to the expected total ionizing dose and displacement damage dose levels? | | Yes |  | No |  |
| If not, have waivers to the PROJECT M&P Plan been processed? | | Yes |  | No |  |
| Waiver Number(s): | | | | | |
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| NOTES:   1. The same waiver may cover more than one item above in some instances, but it should still be listed under each applicable item. 2. RACS may be completed at the next higher level. | | | | | |
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| Approval Signatures | | | | | |
| Assembly/Instrument Cognizant Engineer: | | Date: | | | |
| Subsystem/Assembly/Instrument Manager: | | Date: | | | |
| PROJECT Radiation Control Manager: | | Date: | | | |