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| **Project:** | | | | | Project Name | | | | | | | | | | | |
| **Customer:** | | | | | Customer Name | | | | | **Review**  **date:** | | | | yyyy-mm-dd | | |
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| **Object to be reviewed:** | | | | | | | | | | | | | | | | |
| Document name: | | | Project\_System\_Integration\_Test\_Plan | | | | | | | | | | | | | |
| Version: | | | 1.0 | | | | | | | | | | | | | |
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| **Participants:** | | | | | | | **Name** | | | **Org. unit** | | | | | **Review manager**  **(x)** | |
| Person responsible (author): | | | | | | | Gil-Dong, Hong | | | R&D | | | | | x | |
| Reviewer: | | | | | | |  | | |  | | | | |  | |
| Reviewer: | | | | | | |  | | |  | | | | |  | |
| Other reviewer(s): | | | | | | |  | | |  | | | | |  | |
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| **Review type:** | | | | | | | | | | | | | **Project status:** | | | |
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| **Last review of the object to be reviewed:** | | | | | | | | | | | | | | | | |
| Performed on: | |  | | | | | | | | | | | | | | |
| Doc. name: | |  | | | | | | | | | | | | | | |
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| **Follow Up:** | | | | | | | | | | | | | | | | |
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| **Checklist 'Review Meeting'** | **OK?** | | **Action/comments** |
| --- | --- | --- | --- |
| **yes** | **no** |
| Have all MHE procedures, standards etc. (as specified in the project) been applied to the drawing up of the System Integration (Test) Plan?  Note: Confirmation review ISO 26262-4, §8.4.1.1 |  |  | If this checklist is not applicable, you should leave comment and 'NA'.  If you have comment then you should leave comment at this. |
| Are the input documents up to date? |  |  |  |
| 1.3 Are the references and links of the input documents consistent and identified by a unique identifier? |  |  |  |
| 1.4 Are the input documents put under version and change management? |  |  |  |
| 1.5 Are the responsibilities clearly defined? |  |  |  |
| 1.6 Are the correct templates used? |  |  |  |
| 1.7 Is the System Integration (Test) Plan identified by a unique identifier? |  |  |  |
| 1.8 Is reference made to all necessary documents (Release Plan, relevant standards) for the system integration? |  |  |  |
| 2.1 Is the system integration strategy sufficiently described?  Note: Confirmation review ISO 26262-4, §8.4.1.2 |  |  |  |
| 2.2 Are the individual elements integrated according to the system design?  Note: Confirmation review ISO 26262-4, §8.4.3.1.1 |  |  |  |
| 2.3 Is the integration step for HW / SW integration planned?  Note: Confirmation review ISO 26262-4, §8.4.1.3a) |  |  |  |
| 2.4 Are the system integration exit criteria defined? |  |  |  |
| 2.5 Have the requirements on the system integration environment been sufficiently defined? |  |  |  |
| 2.6 Does a schedule for the system integration steps exist? Does it fit into the Project Schedule? |  |  |  |
|  |  |  |  |
| 3.1 Are the test objects described with sufficient detail, concerning both the hardware and the software?  Note: Confirmation review ISO 26262-4, §8.4.2.1.1, ISO 26262-8, §9.4.1.1a) |  |  |  |
| 3.2 Are unique version numbers assigned to the test objects? |  |  |  |
| 3.3 Is reference made to all necessary documents (Project Manual, Master Test Strategy, SW QA manual, CM plan, relevant standards ...) for the System Integration Test? |  |  |  |
| 3.4 Is the necessary test basis (all documents that are used to derive test cases) documented? |  |  |  |
| 3.5 Have project-specific characteristics been defined? |  |  |  |
| 3.6 Is it sufficiently described what features are tested? |  |  |  |
| 3.7 Is it sufficiently described what features are not tested? |  |  |  |
| 3.8 Has a reason been given for features which are not tested?  Note: Confirmation review ISO 26262-8, §9.4.3.2.f) |  |  |  |
| 3.9 Are the integrated individual elements tested according to the system integration tests?  Note: Such system integration tests might also be specified on HW, SW level, not only on system level - have those test specifications been checked as well?  Note: Confirmation review ISO 26262-4, §8.4.3.1.1 |  |  |  |
| 3.10 Are the HW / SW integration tests planned and do they appropriately cover the HW-SW interface requirements?  Note: Confirmation review ISO 26262-4, §8.4.1.3a), 8.4.2.1.2 |  |  |  |
| 3.11 Do the tests consider the interfaces between vehicle subsystems (internal / external) and the environment, as far as relevant in the MHE scope?  Note: Confirmation review ISO 26262-4, §8.4.1.3c) |  |  |  |
| 3.12 Does a system integration test strategy exist which distributes the test expenditure for the system integration test to the system parts based on risks? |  |  |  |
| 3.13 Has the risk class been determined for each interface with the help of influencing factors? |  |  |  |
| 3.14 Have the complexity of the test object, prior experience with similar objects, and the maturity of the used technologies or the risks associated with them, been adequately taken into account?  Note: Confirmation review ISO 26262-8, §9.4.1.2b), c),d) |  |  |  |
| 3.15 Has the breadth and depth of testing been defined in dependence on the risk class? |  |  |  |
| 3.16 Does the breadth and depth of testing increase for more critical risk classes? |  |  |  |
| 3.17 Have priorities been assigned to the risks? |  |  |  |
| 3.18 Has an expenditure estimate been made based on the risk-classified interfaces and the breadth and depth of testing? |  |  |  |
| 3.19 Does a (release-dependent) regression test strategy exist, which gives adequate priority to safety relevant tests?  Note: Confirmation review ISO 26262-8, §9.4.1.1g) |  |  |  |
| 3.20 Have one or several test exit criteria been defined for the system integration test?  Note: Confirmation review ISO 26262-8, §9.4.1.1c) |  |  |  |
| 3.21 Have the requirements on the test environment been sufficiently defined, including method-specific aspects?  Note: Confirmation review ISO 26262-8, §9.4.1.1d), 9.4.2.3 |  |  |  |
| 3.22 Does a schedule for the system integration test activities exist? Does it fit the Project Schedule? |  |  |  |
|  |  |  |  |
| 4.1 Was the functional and technical safety concept and the system architecture / interface specification taken into account?  Note: Confirmation review ISO 26262-4, §8.4.1.2 |  |  |  |
| 4.2 Are the test goals essential to functional safety sufficiently covered?  Note: These test goals comprise  a) correct implementation of safety requirements,  b) correct performance of safety mechanisms (function, accuracy, timing),  c) consistent & correct implementation of interfaces,  d) effectiveness of the safety mechanisms' diagnostic coverage / failure coverage,  e) robustness.  Note: Confirmation review ISO 26262-4, §8.4.1.2, 8.4.2.2, 8.4.3.2 |  |  |  |
| 4.3 Does the test strategy take the demanded methods for functional safety into account?  Note: Check selection of an appropriate combination of methods on each test level.  Note: Confirmation review ISO 26262-4, §8.4.1.7, 8.4.2.2, 8.4.3.2 |  |  |  |
| 5.1Are there other problems not classified above? |  |  |  |

|  | **Complaint / fault** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Page/**  **Line** | **Issue** | **Safety**  **relevant** | | **Action** | | | |
| **yes** | **no** | **Solution** | **Responsible person** | **Completion deadline** | **Done**  **(🗸)** |
| 1 | 15/20 | There is no diagram for explian of module. |  | x | Add diagram for module. | Gil-Dong, Hong | yyyy-mm-dd | **🗸** |
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