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| **Project information:** | | | | |
| **Customer:** | Name: | Phone number: | Department/Address: | |
| Arsene Catalina | N\A | VNI CCN | |
| **End customer (OEM):** | VOLVO CAR CORPORATION | | | |
| **Concerning (Project name):** | CCN S2 Asia\_VOL\_SPA2\_22\_TCM\_TRM | | | |
| **Type of qualification:** | Pre-compliance  DV (Design Validation)  PV (Product Validation)  External Request | Gate 55-60  Before Gate 80  After Gate 80 | | With PPAP change  Without PPAP change |
| Reason/Details: Casual | | | |
| **Internal project ID number:** | R02074 | | | |

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| **Object of revisions:** | |
| Creation | Cancels and replace the previous version of the test report.  Modifications and/or reason: |

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| **Test information:** | | |
| **Sample amount and identification numbers:** | | |
| 6 | samples: | ENV01-ENV06 |

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| **Test name according Qualification Program (QP) and chapter number:** | | **Test method:** |
| Temperature cycling with specified temperature change rate | 4 | Test Cab: Damp heat, steady state (damp heat constant) |
| **Reference / Applicable standard:** | | **Version/Date:** |
|  | |  |
| **Qualification Program (QP) name:** | | **Version/Date:** |
| \_ENV\_VOL\_SPA2\_22\_TCM\_TRM\_V1.6.1.pd | | 14 June 2021 |
| **Deviation from Qualification Program (QP)**  NO  YES, with the following new test parameters/conditions:  : For Rapid change of temperature with specified transition duration test please use 75 min for each temperature (T min, T max) . Test duration will be 75min\*200 cycles \*2 = 30000min ; 30.000min /60 min =500 h; 500h/24h =20.83days; | | |

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| **Test parameters/conditions from Qualification Program (QP):** |
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| The tolerances of the above-mentioned standards are fulfilled; either they are specified in the test report.  The test result relates only to the listed amount of test samples. |

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| **Schedule:** | |
| Date of test start: | 02/05/2022 |
| Date of test end: | 12/05/2022 |

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| **Test Equipment used:** | | | |
| **Equipment name** | **Inventory no.** | **Calibration ID/Due date** | **Remarks** |
| Sensor humidity/temperature | 03478295 | SBZ0355 / Jul-2022 | QLRELSBZ\_0536 |
| Digital Multimeter | SN: MY59320005 | SBZ0327 / Apr 2022 | QLRELSBZ\_0563 |
| LTT 3 | N.A. | N.A. | Project team equipment |
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| **Summary of the test results:** | | |
| No anomalies were found at visual inspection performed before test start, during and after test end. | | |
| *Uncertainty of measurement was not taken into account in order to declare test result conformity level. The course of test results is mentioned above in order to describe all test events. Results are valid for tested specimens only, as received from the customer. QL does not perform sampling, the results apply to the samples as received from requester. The monitoring data and final functional evaluation will be carried out by the applicant and not by the laboratory.* | | |
| **Visual inspection result:**  no mechanical damages  mechanical damages  Mechanical damages occurred during or at the end of the test, visible with unarmed eyes. | | visual inspection not applicable  (according to test specification acceptance criteria) |
| Author (Test Responsible):  Ianc Radu  Phone no.: +40 374 33 3620 | Checked by (Lab. Technical Responsible):  Aanitei Traian  Phone no.: +40 374 33 4675 | Released by (Head of QL Sibiu):  Cornel Tanase  Phone no.: +40 758 39 9984 |
| e-sign ID: | | |

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| **Test Setup/Measurements/Photos:** |
| |  | | --- | | * Picture with test setup | |  |  |  | | --- | | * Samples mounted in the test equipment (test place) | | |  |  |  |  | | --- | --- | --- | --- | | Test Chamber / Top Shelf | | | | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | | Front View | | | |  |  |  |  |  | | --- | --- | --- | --- | | Test Chamber / Bottom Shelf | | | | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | | Front View | | | | |  |  | | --- | | * Correlation between samples, harness and project team equipment. | | |  |  |  | | --- | --- | --- | | DUT | Cable harness | LTT slot | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  | | --- | | * Recorded temperature and humidity profile: | |  |  |  | | --- | | * Recorded temperature and humidity profile (details): | |  | |

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| **Annex 1** | | | |
| **DUT (Device Under Test) functionality opinions and interpretations:** | | | |
| *The functional evaluation will refer to monitoring of DUT’s during test and post-test functional check. QL is not responsible for any generalizations or conclusions drawn from these results. The content of this annex is in the project team’s responsibility.* | | | |
| Functional tester:  Srdjan Struharik / SyTEE / VNI CE SYS EU2 NVS GD2  Name/function/department | | | |
| Result of the Functional Check is:  PASS  FAIL  NOT REQUIRED  *Additional Comments:* | | | |
| **Error list:** | | | |
| **Error No.:** | **Sample No.:** | **Result/Photos:** | **Remark:** |
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***End of test report.***