

**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**

Component title: Power Mosfet STRH40P10, STRH12P10

Executive Member: CNES

Date: 14/06/2019

Page 2

Appl. No.

326C

12

Failure Analysis, DPA, NCCS available: Yes ☐ No ☒ (Supply data)

Ref. No's and purposes:

13


The undersigned hereby certifies on behalf of the ESCC Executive - that the above information is correct; - that the appropriate documentation has been evaluated; - that full compliance to all ESCC requirements is evidence (except as stated in box 15;) - that the reports and data are available at the ESCC Executive and therefore applies on behalf of CNES as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

Date: 14/06/2019

JP. BUSSENOT
(Signature of the Executive Coordinator)

14

Continuation of Boxes above:

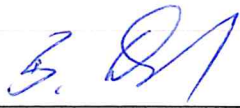
| | | |
|---|---|------------------|
|  | APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL | Page 3 |
| | Component title: Power Mosfet STRH40P10, STRH12P10 | Appl. No. |
| | Executive Member: CNES | Date: 14/06/2019 |
| | | 326C |

| | | | | |
|--------------------------------------|---------------|-----------|----------------|----|
| Non compliance to ESCC requirements: | | | | 15 |
| No.: | Specification | Paragraph | Non compliance | |
| | | | | |

| | |
|--|----|
| Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance: | 16 |
|--|----|

| | |
|--|----|
| Executive Manager Disposition Application Approval: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Action / Remarks: | 17 |
|--|----|

Date:


 B. Schade: Head of ESA Product Assurance and Safety Department



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Power Mosfet STRH40P10, STRH12P10

Executive Member: CNES

Date: 14/06/2019

Page 4

Appl. No.

326C

ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION

18

Tests conducted in compliance with:

- ESCC 5000 generic specification; Chart F4 (for ESCC/QPL parts);
- or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

| | |
|---|-------------------------|
| STRH40P10 Lot ID33445000AZN DC1720A STRH12P10 Lot ID33546001ZY DC1820A | Chart F4 sg1, sg2 & sg3 |
| | |

Detail Specification reference:

| Chart F4 | Test | Tick when done | Conditions | Date Code Diffusion Lot | Tested Qty | N° of Rejects | Comments if not performed. Comments on Rejection |
|-----------------------------------|---------------------------------|-------------------------------------|--|---------------------------|------------|---------------|--|
| Environmental/Mechanical Subgroup | Mechanical shock | <input checked="" type="checkbox"/> | MIL-STD-750 TM2016 | 1720A 1820A | 15 + 15 | 0 | |
| | Vibration | <input checked="" type="checkbox"/> | MIL-STD-750 TM2056 | 1720A 1820A | 15 + 15 | 0 | |
| | Constant acceleration | <input checked="" type="checkbox"/> | MIL-STD-750 TM2006 | 1720A 1820A | 15 + 15 | 0 | |
| | Seal Fine leak Gross leak | <input checked="" type="checkbox"/> | MIL-STD-750 TM1071 | 1720A 1820A | 15 + 15 | 0 | |
| | Electrical Measurement | <input checked="" type="checkbox"/> | Intermediate and End-Point Electrical Measurements | 1720A 1820A | 15 + 15 | 0 | |
| | External Visual | <input checked="" type="checkbox"/> | ESCC Basic Spec 20500 | 1720A 1820A | 15 + 15 | 0 | |
| | Thermal shock | <input type="checkbox"/> | MIL-STD-750 TM1056 | Click here to enter text. | | | Only applicable to axial lead glass diodes |
| | Temperature Cycling | <input checked="" type="checkbox"/> | MIL-STD-750 TM1051 | 1720A 1820A | 15 + 15 | 0 | |
| | Moisture Resistance | <input checked="" type="checkbox"/> | MIL-STD-750 TM1021 | 1720A 1820A | 15 + 15 | 0 | |
| | Seal Fine leak Gross leak | <input checked="" type="checkbox"/> | MIL-STD-750 TM1071 | 1720A 1820A | 15 + 15 | 0 | |
| | Electrical Measurement | <input checked="" type="checkbox"/> | Intermediate and End-Point Electrical Measurements | 1720A 1820A | 15 + 15 | 0 | |
| | External Visual | <input checked="" type="checkbox"/> | ESCC Basic Spec 20500 | 1720A 1820A | 15 + 15 | 0 | |
| Endurance Subgroup | Operating Life | <input checked="" type="checkbox"/> | ESCC 5000 Para. 8.19 | 1720A 1820A | 15 + 15 | 0 | 16 part used for HTRB 2000h and 14 parts used for HTGB 2000h |
| | Electrical Measurement | <input checked="" type="checkbox"/> | Intermediate and End-Point Electrical Measurements | 1720A 1820A | 15 + 15 | 0 | |
| | Seal Fine leak Gross leak | <input checked="" type="checkbox"/> | MIL-STD-750 TM1071 | 1720A 1820A | 15 + 15 | 0 | |
| | External Visual Inspection | <input checked="" type="checkbox"/> | ESCC Basic Spec 20500 | 1720A 1820A | 15 + 15 | 0 | |
| Assembly Capability Subgroup | Permanence of Marking | <input type="checkbox"/> | ESCC Basic Spec 24800 | | | | Not applicable on Laser marking |
| | Terminal Strength | <input checked="" type="checkbox"/> | ESCC 5000 Para. 8.18 | 1720A 1820A | 5 + 5 | 0 | |
| | Internal Visual | <input checked="" type="checkbox"/> | ESCC Basic Spec 20400 | 1720A 1820A | 5 + 5 | 0 | |
| | Bond Strength | <input checked="" type="checkbox"/> | MIL-STD-750 TM 2037 | 1720A 1820A | 3 + 3 | 0 | |
| | Die Shear | <input checked="" type="checkbox"/> | MIL-STD-750 TM 2017 | 1720A 1820A | 3 + 3 | 0 | |

**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**

Component title: Power Mosfet STRH40P10, STRH12P10

Executive Member: CNES

Date: 14/06/2019

Page 5

Appl. No.

326C

| Chart F4 | Test | Tick when done | Conditions | Date Code Diffusion Lot | Tested Qty | N° of Rejects | Comments if not performed. Comments on Rejection |
|------------------|------|-------------------------------------|------------------------------|-------------------------|------------|---------------|---|
| Additional Tests | RGA | <input checked="" type="checkbox"/> | MIL-STD-750-1, METHOD 1018.6 | 1720A | 3 | 0 | |
| | | <input type="checkbox"/> | | | | | |
| | | <input type="checkbox"/> | | | | | |

