

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: CONNECTORS, RF, COAXIAL, SOLDER AND CRIMP CONTACTS,

Page 1

| ESCC | | MALE, FEMALE ADAPTORS AND CONNECTING PIECES, BASED Appl. No. ON TYPE SMA | | | | | No. | |
|--|---|---|--|-------------------|--|---|-----|--|
| A STATE OF THE PARTY OF THE PAR | | Executive Member: CNES | | | Date: 20/12/2013 | 681 | 68M | |
| Components (including | ng series and families |) submitted for Extension | n of Qualification | Approval: | | | 1 | |
| ESCC COMPONENT NO. | VARIANTS | RANGE OF CO | MPONENTS | BASEL | TEST VEHICLE / S | COMPONE | | |
| 3402/001 | 01 to 47 | Frequency Range 0 |)-18 GHz | SMA | 3402001: 02 & 27 | | | |
| 3402/002 | 01 to 85 | Crimp or solder-type contact for flexible and semi-rigid cables, contacts for micro strip | | | 3402002: 68 & 31 | 3402002: 68 & 31 | | |
| 3402/003 | 01 to 14 | Shell material and fi copper gold plated, underplate; stainles | copper or nickel | | 3402003: 02 & 09 | | | |
| Component Ma | anufacturer 2 | | anufacturing Plant | t(s) 3 | | | 4 | |
| RADIALL | | RADIALL (Usine de L'Isle d'Abeau) Z.I. Chesnes Tharabie- BP 709 38295 Saint Quentin Fallavier (France) | | | Date of original qualification approval: Date: 01/02/1981 Certificate Ref No. 68 | | | |
| ESCC Specifications Maintenance of qualit Generic: 3402 Detail(s): 3402/00 1 3402/002 3402/003 | | Deviations to LVT to used: No ⊠ Yes | No ⊠ Yes □ (supply details in Box 15) Deviation from current Specifications: | | | Qualification Extension Report reference and date: PV n°2013.36.4010, November the 4th 2013, see appendix 1 | | |
| Summary of procuren | nent or equivalent test | results during current v | alidity period in su | ipport of this ap | plication (those to ESCC liste | ed first) | 8 | |
| Project Name | Testing Level | | 237 | Date code | EUC 1120 August 1970 | ntity Delivered | | |
| See PID appendix 4 | | | | | | | | |
| 3402/001 | В | - | Q2 2011 | to Q2 2013 | 2146 | | | |
| 3402/002 | В | j - | Q2 2011 | to Q2 2013 | 13092 | | | |
| 3402/003 | В | - | Q2 2011 | to Q2 2013 | 4554 | | | |
| PID changes since state None □ Minor* ⋈ Major* □ | art of qualification *Provide details in box | g c | Issue: 7 | PAQP-A 0014 | Sauveplane Jean-bapt Name of Excutive Repre | - | 10 | |
| Current Manufacturing | a facilities surveyed by | 100 E | auveplane Jean-l | | on | 03/10/2013 (Date) | 11 | |
| Satisfactory: | Yes ⊠ | No 🗆 Exp | plain | | | | | |
| Report Reference: | CRIM_ | 982024 | | | | | | |

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Page 2 CONNECTORS, RF, COAXIAL, SOLDER AND CRIMP CONTACTS, MALE, FEMALE ADAPTORS AND CONNECTING PIECES, BASED Component title: Appl. No. ON TYPE SMA Executive Member: CNES 20/12/2013 Date: 68M 12 Failure Analysis, DPA, NCCS available: Yes \boxtimes (Supply data) No 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. 23/12/2013 Date: JP. BUSSENOT (Signature of the Executive Coordinator) Continuation of Boxes above: 14



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title:

CONNECTORS, RF, COAXIAL, SOLDER AND CRIMP CONTACTS, MALE, FEMALE ADAPTORS AND CONNECTING PIECES, BASED ON TYPE SMA

Signature, ESA Representative

Appl. No.

Page 3

| E CONTRACTOR DE | Executive Memb | ber: CNES | Date: 20/12/2013 | 68M |
|---|-------------------------------------|-------------------------------------|--------------------------|---------|
| Non compliance to ESCC | requirements: | | | 15 |
| No.: | Specification | Paragraph | Non comp | oliance |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Additional tasks required t noncompliance: | to achieve full compliance for ESCC | qualification or rationale for acce | eptability of | 16 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| xecutive Manager Dispos | sition | | | 17 |
| | ′es □ No □ | | | |
| Action / Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | |)1 |
| | | | 1210 | 1 |
| vate: 17.01.2 | 014 | | | |
| / | | | Signature ESA Depresente | otino |

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

CONNECTORS, RF, COAXIAL, SOLDER AND CRIMP CONTACTS, MALE, FEMALE ADAPTORS AND CONNECTING PIECES, BASED Component Title:

ON TYPE SMA

Executive Member: CNES Date: 20/12/2013

Page 4 Appl. No.

68M

18

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

Tests conducted in compliance with:

- ESCC 3402 generic specification; Chart F4 (for ESCC/QPL parts);
- PID-(for ESCC/QML parts)
- TFD (for ESCC/QML parts)

Tests vehicle identification/description:

| See appendix 1 | |
|----------------|--|
| | |
| | |

Detail Specification reference:

| Chart | Test | Ttok when | Conditions | DC Diffusion | Tested Qty | Nº of Rejects | Comments If not performed Comments on Rejection |
|----------------|----------------------------------|--------------|----------------------|--------------------------------------|---------------|------------------|--|
| | | ⊠ | ESCC 3402 Para. 8.13 | 1331 1316 1302 1328 1324 | 14 | 0 | |
| | | ⊠ | ESCC 3402 Para. 8.14 | 1316 1302 | 4 | 0 | |
| | Shock | | ESCC 3402 Para. 8.15 | | | | NA in extention of qualification |
| | | ⋈ | ESCC 3402 Para. 8.15 | 1316 1302 | 4 | 0 | |
| Subgroup | | | ESCC 24800 | | | | NA to engraved connectors |
| | Climatic sequence | | ESCC 3402 Para. 8.18 | | | | NA in extention of qualification |
| | Cathly retention force | | ESCC 3402 Para. 8.19 | | | | NA for tested variants |
| | Coupling proof torque | × | ESCC 3402 Para. 8.9 | 1328 1331 1324 | 6 | 0 | |
| | | | ESCC 3402 Para. 8.10 | | | | NA in extention of qualification |
| | | | ESCC 3402 Para. 8.12 | | | | NA in extention of qualification |
| | | | ESCC 20500 | | | | NA in extention of qualification |
| | RF Insection loss | × | ESCC 3402 Para. 8.22 | 1324 | 2 | 0 | |
| | Cabling and crutiping capability | Ø | ESCC 3402 Para. 8.20 | 1328 1331 | 4 | 0 | |
| onb 2 | | ⋈ | ESCC 3402 Para. 8.21 | 1328 1331 | 4 | 0 | |
| | | | ESCC 3402 Para. 8.23 | | | | NA in extention of qualification |
| Stub | Endurance | × | ESCC 3402 Para. 8.24 | 1331 1316 1302 | 8 | 0 | |
| | | | ESCC 3402 Para. 8.12 | | | | NA in extention of qualification |
| Subgroup 4 p.3 | | × | ESCC 3402 Para. 8.25 | 1331 1316 | 4 | 0 | |
| | | | ESCC 3402 Para. 8.12 | | | | NA in extention of qualification |
| | Plating thickness | | ESCC 3402 Para. 8,3 | | | | NA in extention of qualification |
| | | | ESCC 3402 Para. 8.26 | | | | NA in extention of qualification |
| | | | ESCC 3402 Para, 8,27 | | | 177 | NA in extention of qualification |
| | RF (enkage | | ESCC 3402 Para. 8.28 | | | | NA in extention of qualification |
| | . High temporature alorage | | ESCC 3402 Para. 8.29 | | | | NA in extention of qualification |
| | | | ESCC 3402 Para, 8.12 | | | | NA in extention of qualification |
| | | | | | | 1 | 1 |



Box 22

Additional Comments.

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

CONNECTORS, RF, COAXIAL, SOLDER AND CRIMP CONTACTS, MALE, FEMALE ADAPTORS AND CONNECTING PIECES, BASED ON TYPE SMA Component title:

Executive Member: CNES

Page 6 Appl. No.

68M

NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL

| 1 | NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL |
|----------------|---|
| ENTRIES | |
| Form heading | shall indicate: - the title of the component as given in its detail specification or the name of the series, family; - the Executive Member; - the entering date; - the certificate number and its sequential suffix. |
| Box 1 | shall provide details given in the table; in particular there shall be listed: - the variants or range of variants; - the range of components (the ESCC code is recommended to indicate the values or values range, the tolerance, the voltage, etc); the designation given in the detail specification as 'base on'; - under Test Vehicle enter either an ESCC code or the specific characteristic capable of identifying the component tested (e.g., voltage of coil for a relay); - under component similar enter a cross if relevant. |
| Box 2; 3 and 4 | As per QPL entry; otherwise, an explanation of the changes must be supplied. |
| Box 5 | Will show the ESCC Generic and Detail specifications, including issue number and revision letter, current at the time the tests reported were performed. If the specifications are different from those current on the date of the application, see Box 6. |
| Box 6 | Will show the deviations from the Generic and Detail Specifications listed in Box 5, in particular deviations from testing. In case of deviations this must be listed in Box 15. In case the referenced specification in Box 5 have currently a different issue and/or revision indicate also whether the test data deviates or not from such current documents. |
| Box 7 | Must reference the report(s) supplied in support of the application. |
| Box 8 | Should provide the details of procurement to the full ESCC System, documentation of all of which should already have been delivered to the ESCC Executive under the terms of the relevant Generic Specification. An appropriate table has been drawn in this box. |
| Box 9 | If the PID evolved after the Original Qualification or after the last Extension of Qualification, adequate details of such evolution shall be provided together with the reasons for the changes. Major changes shall be clearly marked. |
| Box 10 | Identify the current PID issue status, date and actual date of verification. The date of verification of the current PID should be arranged as close as possible to the required date of extension. |
| Box 11 | This box can be completed only after a physical visit to the plant to confirm that no unexplained changes occurred and that the practices, procedures, material, etc. used in manufacturing the components are as described in the PID. This survey shall be carried out in accordance with the requirements of ESCC Basic Specification No. 20200 and its findings shall be recorded. |
| Box 12 | Provide details of, or reference to, any Destructive Physical Analysis (DPA) and Failure Analysis reports as well as any Nonconformance(s) (NCCS) occurred during the qualification validity period, stating if established corrective action have produced satisfactory results. |
| Box 13 | Enter only the name of the Executive Member (i.e., CNES, DLR, ESTEC, etc.) and the signature of the responsible Executive Coordinator. |
| Box 14 | To be used when there is a need to expand any of the boxes from 1 through 12. Identify box affected and reference the Box 14 in the relevant Box. Box 14 can be broken into 14a, 14b, etc. if several boxes have to be expanded. |
| Box 15 | Fill in Table as requested. |
| Box 16 | Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance. |
| Box 17 | All Executive Manager recommendations on the application itself, special conditions or restrictions, modifications of the QPL or QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 19, signed by the representative for ESA, and dated. |
| Box 18 | Fill in Table as requested. |
| Box 19 | Confidential Details of PID changes including those of a confidential nature, shall be provided. |
| Box 20 | State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 16 each nonconformance shall be sequentially numbered. If relevant state 'None'. |
| Box 21 | Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance. |