



# ESCC QUALIFIED PARTS LIST

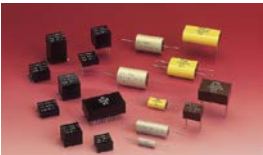
AUGUST 2018

CAPACITORS

| Cert.      | Type Designation                                | Manufacturer         | Detail specifications (quantity) |
|------------|-------------------------------------------------|----------------------|----------------------------------|
|            | Ceramic, Fixed                                  |                      |                                  |
| 231 L rev1 | Type II, High Capacitance                       | AVX (N.I.)           | 3001/030                         |
| 315 C      | Type II, Types CNC 31 to CNC 34                 | Exxelia Technologies | 3001/037                         |
| 262 H rev1 | Type II, High Voltage                           | AVX (N.I.)           | 3001/034                         |
| 306 C      | Type II, Types CNC 53 to CNC 56                 | Exxelia Technologies | 3001/038                         |
|            | Ceramic, Fixed, Chip                            |                      |                                  |
| 109 N rev1 | Type I                                          | AVX/TPC              | 3009/003-....-022 (4)            |
| 323 B rev1 | Type I, Types CEC2S to CEC14S                   | Exxelia Technologies | 3009/003-....-037 (6)            |
| 110 N      | Type II                                         | AVX/TPC              | 3009/008-....-011 (4)            |
| 324 B rev2 | Type II, Types CNC2S to CNC14S                  | Exxelia Technologies | 3009/008-....-039 (7)            |
| 264 H rev1 | Type II, High Voltage                           | AVX (N.I.)           | 3009/034                         |
| 331 A      | Type II, Types TTP 0603, 0805, 1206, 1210, 1812 | AVX (N.I.)           | 3009/041                         |
|            | Tantalum, (Solid), Fixed, Electrolytic          |                      |                                  |
| 196 H      | Type TAJ                                        | AVX (CZ)             | 3012/001                         |
| 327 B      | Low ESR, Type TES                               | AVX (CZ)             | 3012/004                         |
|            | Fixed, Film                                     |                      |                                  |
| 251 J      | Type HT86PS, High Voltage                       | Exxelia Technologies | 3006/022                         |
| 353        | Type PM94S/94S, PM907S/90                       | Exxelia Technologies | 3006/020-....-026                |
|            | Semiconductor                                   |                      |                                  |
| 286 C      | Type 101M, 201M, 400M and 401M                  | Cobham Microwave     | 5711/002                         |



Stacked Ceramics  
3001030/3001034  
Source: AVX N.I.



Exxelia PM Capacitors  
Source: Exxelia Technologies



Type TAJ  
Source: AVX CZ

CONNECTORS

| Cert.     | Type Designation                   | Manufacturer               | Detail specifications (quantity) |
|-----------|------------------------------------|----------------------------|----------------------------------|
|           | Multipin, Solder Contacts          |                            |                                  |
| 71 R rev1 | D*M Series, Rectangular            | C&K COMPONENTS             | 3401/001-....-080 (6)            |
| 155 M     | D*M Series, Rectangular            | SOURIAU                    | 3401/001-....-072 (3)            |
|           | Multipin, Crimp Contacts           |                            |                                  |
| 72 R rev1 | D*MA Series, Rectangular           | C&K COMPONENTS             | 3401/002-....-021 (4)            |
| 156 L     | D*MA Series, Rectangular           | SOURIAU                    | 3401/002-....-021 (4)            |
| 25 Q      | DBAS Series, Circular              | Deutsch                    | 3401/... (4)                     |
| 220 J     | Series I, Circular, Crimp          | SOURIAU                    | 3401/052-....-062 (3)            |
| 221 J     | Series II, Circular, Crimp         | SOURIAU                    | 3401/044-....-062 (3)            |
| 222 J     | Series III, Circular, Miniature    | SOURIAU                    | 3401/056-....-070 (5)            |
| 223 H     | Series III, Hermetic               | SOURIAU                    | 3401/057                         |
| 288 D     | ACB1 Series                        | Axon' Cables               | 3401/079                         |
| 337 A     | Fast-locking Screw Lock Assemblies | C&K COMPONENTS             | 3401/085                         |
|           | Printed Circuit Board              |                            |                                  |
| 99 P      | HE 801 Series                      | Smiths Connectors Hypertac | 3401/016-017                     |
| 149 P     | KMC Series                         | Smiths Connectors Hypertac | 3401/039                         |
| 250 H     | MHD Series                         | Smiths Connectors Hypertac | 3401/065                         |
| 281 E     | IHD INTERPOSER                     | Smiths Connectors Hypertac | 3401/076                         |
|           | R.F. Coaxial                       |                            |                                  |
| 68 P      | SMA Series                         | Radiall                    | 3402/001-....-003 (3)            |
| 283 E     | SMA 2.9                            | Radiall                    | 3402/021-....-023 (3)            |
| 329 B     | SMA, SMA 2.92, TNC and SMP         | Rosenberger                | 3402/001-....-026 (12)           |
| 350       | TYPE TNC-VHP                       | Radiall                    | 3402/027-....-028                |
|           | Micro-miniature, Crimp Contacts    |                            |                                  |
| 140 P     | MDM Series, Rectangular            | C&K COMPONENTS             | 3401/029-....-087 (4)            |
| 141 P     | MTB Series, Rectangular            | C&K COMPONENTS             | 3401/031                         |
| 290 D     | MDMA, Rectangular                  | C&K COMPONENTS             | 3401/077-078                     |
| 301 C     | 8MCG, Rectangular                  | SOURIAU                    | 3401/081-....-084 (4)            |



MDM                      Sub-D  
Source: C&K Components



SMA DC-22 GHz  
Source: RADIALL



3401015201B071597-PN-SN-01  
Source: Souriau



KMC Series  
Source: Smiths Connectors Hypertac



32s107-302n5-a  
Source: Rosenberger

CRYSTALS

| Cert. | Type Designation | Manufacturer | Detail specifications (quantity) |
|-------|------------------|--------------|----------------------------------|
|       | Crystals         |              |                                  |
| 333 A | TO-5 Can         | RAKON        | 3501/018                         |
| 334 A | TO-8 Can         | RAKON        | 3501/019                         |



Rakon Crystals  
Source: ESA

FILTERS

| Cert. | Type Designation                                                                | Manufacturer         | Detail specifications (quantity) |
|-------|---------------------------------------------------------------------------------|----------------------|----------------------------------|
|       | Feedthrough                                                                     |                      |                                  |
| 252 H | Types SFC, SFL, SFP                                                             | Exxelia Technologies | 3008/014-...-032 (12)            |
|       | SAW                                                                             |                      |                                  |
| 313 C | SAW filters (transversal band pass/ resonator/notch/low loss impedance element) | Kongsberg Norspace   | 3502/002                         |



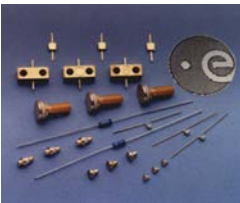
Source: Kongsberg Norspace



Source: Exxelia Technologies

DIODES

| Cert. | Type Designation                              | Manufacturer                     | Detail specifications (quantity)        |
|-------|-----------------------------------------------|----------------------------------|-----------------------------------------|
|       | Switching                                     |                                  |                                         |
| 311 C | Types 1N6640U and 1N6642U                     | STMicroelectronics               | 5101/026-027                            |
|       | Power Rectifier                               |                                  |                                         |
| 297 D | Types 1N5806U and 1N5811U                     | STMicroelectronics               | 5101/013-014                            |
| 302 D | Types 1N5819U and 1N5822U                     | STMicroelectronics               | 5106/020-021                            |
| 272 G | Type STPS20100                                | STMicroelectronics               | 5106/016-...-019 (4)                    |
| 274 F | Types BYW-81, BYV52, BYV54                    | STMicroelectronics               | 5103/029-...-031 (3)                    |
|       | RF/Microwave, PIN, Silicon Schottky           |                                  |                                         |
| 227 F | TYPES BAS 40, BAS 70, BXY42, BXY43, and BXY44 | Infineon                         | 5512/020, 5513/017-030                  |
|       | RF/Microwave, Varactors                       |                                  |                                         |
| 200 H | PIN and Varactors                             | API Technologies - RF2M Division | 5512/001-...-007, 5513/007-...-015 (11) |
| 225 G | Multiplier and PIN, DH 2xx and DH 50xxx       | Cobham Microwave                 | 5512-5513-/-...                         |
| 273 F | Varactor, Tuning, DH 76xxx                    | Cobham Microwave                 | 5512/023                                |



Source: API Technologies



M208A  
Source: Cobham Microwave



LCC2B\_510101311  
Source: STMicroelectronics

FUSES

| Cert. | Type Designation | Manufacturer | Detail specifications (quantity) |
|-------|------------------|--------------|----------------------------------|
|       | Thin Film        |              |                                  |
| 284 E | Type MGA-S       | Schurter     | 4008/001                         |
| 336 B | Type HCSF        | Schurter     | 4008/002                         |



Type HCSF  
Source: Schurter AG



INDUCTORS

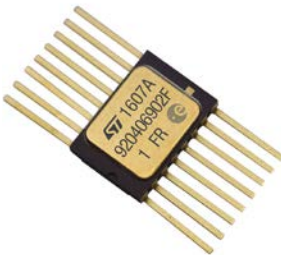
| Cert.      | Type Designation                 | Manufacturer      | Detail specifications (quantity) |
|------------|----------------------------------|-------------------|----------------------------------|
|            | <b>Fixed, RF</b>                 |                   |                                  |
| 241 H rev1 | Types MSC1 10K, 12K, 20K and H01 | Exxelia Magnetics | 3201/008                         |
|            | <b>Power</b>                     |                   |                                  |
| 276 E rev1 | Types SESI and CMC               | Exxelia Magnetics | 3201/009-010                     |



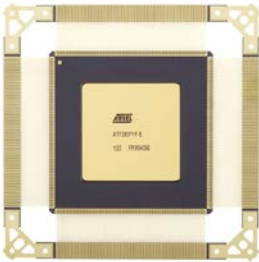
**SESI**  
Source: Exxelia Magnetics

MICROCIRCUITS

| Cert.      | Type Designation                                                                                                           | Manufacturer        | Detail specifications (quantity)                                                 |
|------------|----------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------|
|            | <b>Digital C-MOS</b>                                                                                                       |                     |                                                                                  |
| 73 R       | 4000 B Series                                                                                                              | ST Microelectronics | 9201-9202-9203-9204-9205-9206-9207-9209-9306-9401-9407-9408- /... (70)           |
| 190 M      | 54HCMOS Series                                                                                                             | ST Microelectronics | 9201-9202-9203-9204-9205-9207-9208-9209-9306-9401-9402-9405-9408-9408- /... (75) |
| 278 E rev2 | Integrated Circuits, Silicon Monolithic, CMOS Gate/Embedded Array based on Type MH1RT                                      | ATMEL               | 9202/076                                                                         |
| 312 B rev1 | Integrated Circuits, Silicon, Monolithic, CMOS, Cell-Based Array, based on Type ATC18RHA                                   | ATMEL               | 9202/080                                                                         |
| 312 B rev1 | Integrated Circuits, Silicon, 32-bit SPARC Processor, based on Type AT697F                                                 | ATMEL               | 9512/004                                                                         |
| 312 B rev1 | Integrated Circuits, Silicon, Monolithic, CMOS Digital, Field Programmable Gate Array, 280000 Gates, based on Type ATF280F | ATMEL               | 9304/165                                                                         |
| 342 rev1   | Integrated Circuits, Silicon, Monolithic, CMOS, Cell-Based Array, based on Type ATMX150RHA - Ph.1 Digital Only 7Mgates 5ML | ATMEL               | 9202/083                                                                         |
|            | <b>Linear Switching Regulator</b>                                                                                          |                     |                                                                                  |
| 344        | Integrated Circuits, Pulse width modulator, based on types ST1843 and ST1845                                               | ST Microelectronics | 9108/020-021                                                                     |



**FLAT-16\_M54HC4040KT**  
Source: ST Microelectronics



Source: Atmel

RELAYS

| Cert.      | Type Designation                          | Manufacturer   | Detail specifications (quantity) |
|------------|-------------------------------------------|----------------|----------------------------------|
|            | <b>Non-Latching, 28Vdc Contact Rating</b> |                |                                  |
| 102 J      | Type T**                                  | REL STPI       | 3601/002                         |
| 205 F      | Type E 215                                | REL STPI       | 3601/007                         |
| 318 C      | Type M300                                 | LEACH Sarralbe | 3601/007                         |
|            | <b>Latching, 28Vdc Contact Rating</b>     |                |                                  |
| 88 K       | Type TL                                   | REL STPI       | 3602/002                         |
| 98 H       | Type EL415                                | REL STPI       | 3602/004                         |
| 317 C      | Type M402                                 | LEACH Sarralbe | 3602/004                         |
| 167 G      | Type EL215                                | REL STPI       | 3602/009                         |
| 310 C rev1 | Type M302                                 | LEACH Sarralbe | 3602/009                         |



**Latching relay, TO5**  
Source: REL STPI

WIRES AND CABLES

| Cert. | Type Designation                          | Manufacturer | Detail specifications (quantity) |
|-------|-------------------------------------------|--------------|----------------------------------|
|       | Coaxial, RF, Flexible                     |              |                                  |
| 24 T  | PTFE/Polyimide, Type 50 CIS               | Nexans       | 3902/001                         |
| 255 K | Coaxial, Triaxial, Balanced Shielded Line | Gore         | 3902/002                         |
| 298 D | Coaxial, Triaxial, Balanced Shielded Line | Axon' Cable  | 3902/002                         |
| 291 D | Symmetric, Quad, Spacewire                | Axon' Cable  | 3902/003                         |
| 304 C | Symmetric, Quad, Spacewire                | Gore         | 3902/003                         |
| 335 A | Symmetric, Quad, Spacewire                | Axon' Cable  | 3902/004                         |

|       |                                                                    |                  |               |
|-------|--------------------------------------------------------------------|------------------|---------------|
|       | Low Frequency                                                      |                  |               |
| 07 S  | Polyimide, Types FA-3901-1, FA 3901-2                              | Draka Fileca     | 3901/001-002  |
| 09 R  | Polyimide, Types 1871-1872                                         | Nexans           | 3901/001-002  |
| 132 P | Polyimide, Types 3901002**B                                        | Axon' Cable      | 3901/001-002  |
| 08 S  | PTFE, Types MTV-BTV                                                | Nexans           | 3901/013      |
| 292 D | PTFE/Polyimide, Types 3901013**B                                   | Axon' Cable      | 3901/013      |
| 138 M | Polyimide, Type SPC                                                | Gore             | 3901/009      |
| 219 L | Polyimide, Types SPL                                               | Gore             | 3901/019      |
| 268 G | Polyimide, Types 3901019**B                                        | Axon' Cable      | 3901/019      |
| 295 D | Polyimide, Types 3901019                                           | Leoni            | 3901/019      |
| 159 N | Crosslinked PTFE, Type Silver-Plated Copper                        | Tyco Electronics | 3901/012      |
| 267 H | Crosslinked PTFE, Type Silver-Plated Copper                        | Axon' Cable      | 3901/012      |
| 215 L | PTFE, Polyimide / PFA Insulated, Type SPP                          | Gore             | 3901/017      |
| 216 L | PTFE, Polyimide / PFA Insulated, Shielded, Type SPM                | Gore             | 3901/018      |
| 294 D | PTFE, Polyimide/PFA Insulated, Shielded, Type 3901018              | Leoni            | 3901/018      |
| 300 D | PTFE, Polyimide / PFA Insulated, Shielded, Type SPM                | Axon' Cable      | 3901/018      |
| 229 L | Polyimide, Insulated, Shielded, Type SPLD, Drain Wire              | Gore             | 3901/021      |
| 293 D | Polyimide, Insulated, Shielded, Drain Wire, Types 3901021**B       | Axon' Cable      | 3901/021      |
| 296 D | Polyimide, Insulated, Shielded, Drain Wire, Type 3901021           | Leoni            | 3901/021      |
| 257 H | Crosslinked, Modified ETFE, Type Silver-Plated Copper, Lightweight | Tyco Electronics | 3901/020-/022 |
| 299 D | Fluoropolymer, Lightweight, Based on Type CSWL                     | Axon' Cable      | 3901/024      |
| 305 C | Fluoropolymer, Lightweight, Based on Type CSWL                     | Gore             | 3901/024      |
| 328 B | Extra Thin, Fluorthermoplastic / Polyimide, based on Type CSC      | Gore             | 3901/025      |



ESA Cables  
Source: Draka Felica



Axon Cables  
Source: Axon' Cable



QS Space Grade  
Source: Leoni



Single Core Construction  
Source: Tyco Electronics



ESCC 3901/025  
Source: W.L. GORE & ASSOCIATES GmbH

THERMOSTATS

| Cert. | Type Designation         | Manufacturer | Detail Specifications (quantity) |
|-------|--------------------------|--------------|----------------------------------|
|       | Switches                 |              |                                  |
| 275F  | Thermostatic, Bimetallic | Comepa       | 3702/001                         |



Switches T45  
Source: COMEPA

RF PASSIVE

| Cert. | Type Designation                                                                      | Manufacturer | Detail Specifications (quantity) |
|-------|---------------------------------------------------------------------------------------|--------------|----------------------------------|
|       | Circular and Isolator                                                                 |              |                                  |
| 340   | Isolators and circulators based on types BK1XXX and BK3XXX                            | Cobham       | 3202/026                         |
| 347   | Isolators, High Power, Coaxial, and C band, based on types BE1xE2-105 and BG1xE2-206s | Cobham       | 3202/022-023                     |
|       | Attenuator and Load                                                                   |              |                                  |
| 178K  | Attenuators, Type R413                                                                | Radiall      | 3403/005                         |
| 185J  | Coaxial Loads, 0 to 22 GHz                                                            | Radiall      | 3403/006                         |



Attenuators, SMA DC-22GHz  
Source: Radiall

CABLE ASSEMBLY

| Cert. | Type Designation    | Manufacturer | Detail Specifications (quantity) |
|-------|---------------------|--------------|----------------------------------|
|       | Cable Assembly      |              |                                  |
| 348   | RF Cable Assemblies | Radiall      | 3408/001                         |



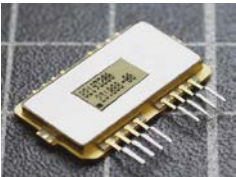
Isolator  
Source: Cobham

Process Capability Approval  
HYBRIDS

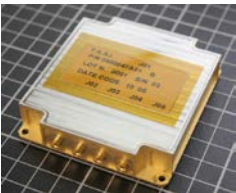
| PCA Cert. | Type Designation                                                                            | Manufacturer                  |
|-----------|---------------------------------------------------------------------------------------------|-------------------------------|
|           | Hybrid                                                                                      |                               |
| 332       | High Frequency Hybrid Line                                                                  | Thales Alenia Space France    |
| 341       | MW IC (MHIC) and High Density Integrated (HDI) RF SiP in LTCC Hybrid Line                   | Tesat                         |
| 343       | Thick and Thin film Low frequency and LTCC microwave Hybrid line                            | Thales Alenia Space Italy     |
| 345       | Thick Film Hermetic Hybrid Integrated Circuits and HTCC Hermetic Hybrid Integrated Circuits | Airbus Defense & Space        |
| 346       | Thick Film Hermetic Hybrid Integrated Circuits and HTCC Hermetic Hybrid Integrated Circuits | Safran Elecetronics & Defense |
| 351       | 3D Stacking Technology Modules                                                              | 3D PLUS                       |
| 349       | Thick Film and HTCC Hermetic Hybrid Integrated Circuits                                     | Thales Alenia Space Belgium   |



Isolator  
Source: Cobham



RF Hybrids  
Source: TAS France



TAS-I Hybrid  
Source: ESA



MHIC  
Source: Tesat

THERMISTORS SENSORS

| Cert. | Type Designation                                                 | Manufacturer                    | Detail specifications (quantity) |
|-------|------------------------------------------------------------------|---------------------------------|----------------------------------|
|       | NTC                                                              |                                 |                                  |
| 266 H | Types G15K4D489 and *K3A35*                                      | TE Connectivity (formerly MEAS) | 4006/013-014                     |
|       | PT                                                               |                                 |                                  |
| 352   | Resistance Temperature Detector, Thin film/ Platinum Sensor, PTC | Innovative Sensor Technology    | 4006/015                         |



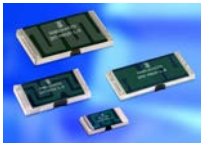
ESCC 4006/014  
Source: TE Connectivity



Thin film/Platinum Sensor, PTC  
Source: IST

RESISTORS

| Cert. | Type Designation                                                                                                                                    | Manufacturer           | Detail specifications (quantity) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------|
|       | Shunts                                                                                                                                              |                        |                                  |
| 285 D | Types SMV-PW and SM*-PT                                                                                                                             | Isabellenhütte         | 4001/027-028                     |
|       | Fixed film                                                                                                                                          |                        |                                  |
| 256 J | Surface Mount, Type MS1                                                                                                                             | Vishay Electronic GmbH | 4001/022                         |
| 289 D | Surface Mount, Type TNPS                                                                                                                            | Vishay Electronic GmbH | 4001/029                         |
|       | Chip                                                                                                                                                |                        |                                  |
| 287 E | Type PHR; PFRR; PRAHR/ CNWHR                                                                                                                        | Vishay S.A., Sfernice  | 4001/023-025                     |
| 314 C | Type CHP                                                                                                                                            | Vishay S.A., Sfernice  | 4001/026                         |
| 287 E | Thin Film Technology for Chip, Wraparound, Single and Network Resistors, Fixed, Based on Types P for Single Chip, PRA and CNW for Resistor Networks | Vishay S.A., Sfernice  | 4001/023-025                     |
|       | Flexible foil heaters                                                                                                                               |                        |                                  |
| 184 M | Single & Double Layer                                                                                                                               | IRCA                   | 4009/002                         |
| 325 A | Single & Double Layer                                                                                                                               | Minco                  | 4009/003                         |
| 330 A | Single & Double Layer                                                                                                                               | IRCA                   | 4009/004                         |



SMx -FAMILY  
Source: Isabellenhutte



CHPHR  
Source: Vishay (FR)



MS1  
Source: Vishay Electronic



Flexible foil heaters  
Source: IRCA



MINCO 14490j  
Source: Minco



25CS54AR  
Source: Infineon Technologies AG



ST Microelectronics Power Mosfet  
Source: ESA

TRANSISTORS

| Cert. | Type Designation                                  | Manufacturer       | Detail specifications (quantity) |
|-------|---------------------------------------------------|--------------------|----------------------------------|
|       | Low Power, NPN                                    |                    |                                  |
| 233 M | Low And High Power                                | STMicroelectronics | 5201-5203-5207-/-... (9)         |
|       | Low Power, PNP                                    |                    |                                  |
| 234 M | Low and High Power                                | STMicroelectronics | 5202-5204-5207-/-... (6)         |
|       | MOSFET, Power, N-Channel                          |                    |                                  |
| 303 C | Types STRH100N10, STRH40N6, SRH100N6 and STRH8N10 | STMicroelectronics | 5205/021-...-024 (4)             |
| 319 B | Type BUY**CS***                                   | Infineon           | 5205/026-...-030 (4)             |
| 339   | Type BUY15CS                                      | Infineon           | 5205/031                         |
|       | MOSFET, Power, P-Channel                          |                    |                                  |
| 326 B | Type STRH40P10                                    | STMicroelectronics | 5205/025-029                     |
|       | RF/Microwave, NPN, Low Power, Low Noise           |                    |                                  |
| 230 G | Types BFY193                                      | Infineon           | 5611/006                         |
| 245 G | Types BFY405, -420 and -450                       | Infineon           | 5611/008                         |
| 322 B | Types BFY 640, 640B, 650B and 740B                | Infineon           | 5611/009-...-011 (3)             |
|       | Microwave, Gallium Arsenide                       |                    |                                  |
| 213 G | Types CFY67, High Electron Mobility, Low Noise    | Infineon           | 5613/004                         |





<https://escies.org> website offers you our full list of Qualified Manufacturers, the Qualified Parts List, all ESCC Specifications, the ESA Radiation Database, the European Preferred Parts List, ESA Components Technology Activities, Component Conference announcements and proceedings and MUCH MORE.

### Contact

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