WHO IS EXXELIA

EXXELIA is a manufacturer of ruggedized passive components and precision subsystems focusing on highly demanding end-markets, applications and functions. With more than 30 years of heritage in Space, EXXELIA combines engineering and manufacturing know-hows to provide qualified and cost-effective solutions.

Thanks to an extensive sales network covering more than 30 countries, EXXELIA is able to provide prompt in-depth technical expertise throughout a project and remain close to its clients at all stages from design to production.

OUR APPROACH

- Quality Multi-Step Process Inspection
- Obsolescence management
- Use of low outgassing materials only
- Design & Engineering support
- Custom designs

EXTENSIVE PRODUCT PORTFOLIO DEDICATED TO SPACE

CAPACITORS

- Ceramic, Tantalum
- Film, Mica

MAGNETICS

- Transformers, Inductors

ELECTROMECHANICAL

- Position Sensors, Slip rings
- EMI-RFI Filters
- Tuning Elements
EXXELIA AT A GLANCE

1900 Employees
ISO 9001
EN 9100
AS 9100 Certified
In more than 30 countries
13 Manufacturing Locations
50 ESA Qualified Series
Stop Shopping

TWO COMPLEMENTARY OFFERS

COMPREHENSIVE ESA QPL PRODUCT PORTFOLIO
Maintain and widen the list of our Qualified Product Series to confirm our position in the traditional Space Market.

COST EFFECTIVE SOLUTIONS
Offer new space components to answer the need of increased competitivness and quicker go-to-market.

OFFER FOR NEW SPACE

ENHANCED RELIABILITY
Additional screening included in our process.
All parts ready to use without additional incoming screening.

A LIGHTER PROCESS FROM A TO Z
Reduced inter-operation inspections.
No LAT test, no paperwork.
Delivered with a standard CoC only.
**Capacitors**

Custom design available on request

---

**High voltage**

**SMD**

**C48X Ceramic:** high capacitance values, high stability under voltage

---

**CEC / CNC Series**

Sizes 0402 to 2220

- NPO & X7R
- 10 V<sub>DC</sub> to 1000 V<sub>DC</sub>
- 1 pF to 3.9 µF
- −55°C + 125°C

---

**Miniaturization**

Exxelia is the only manufacturer qualified in 10 V

Polymer termination in QPL: absorption of thermo-mechanical stresses

---

**Radial Capacitors**

**TCF, TCK Series**

- NPO, X7R & C48X
- 63 V<sub>DC</sub> to 10 kV<sub>DC</sub>
- 10 pF to 6.8 µF
- −55°C + 125°C

---

**High capacitance**

**Stacked technology**

**SMD or through-hole connections**

---

**CNC 3X & 5X**

Sizes 2220 to 6080

- X7R
- 16 V<sub>DC</sub> to 500 V<sub>DC</sub>
- 100 nF to 180 µF
- −55°C + 125°C

---

**High voltage**

- Molded, or conformal coated cases
- C48X Ceramic: high capacitance values, high stability under voltage

---

**CH / SH Series**

Sizes 0505 & 1111

- P100 & NPO
- Up to 1500 V<sub>DC</sub>
- 0.1 pF to 1000 pF
- −55°C + 175°C

---

**Ultra High-Q**

- High capacitance
- Low ESR
- High self resonant frequencies
- Ribbon leads for SMD
Ceramic - Film - Tantalum

**PHM Series**

PEN HV
250 V<sub>DC</sub> to 1000 V<sub>DC</sub>
0.15 µF to 68 µF
−55°C +155°C

- High temperature +155°C
- Very high energy density
- Less capacitors for the same function

**PM Series**

Metallized PET
50 V<sub>DC</sub> to 1250 V<sub>DC</sub>
0.022 µF to 180 µF
−55°C +125°C

- High energy density
- Low ESR & ESL
- Light weight

**HT Series**

Reconstituted Mica
1500 V<sub>DC</sub> to 20 kV<sub>DC</sub>
100 pF to 1.5 µF
−55°C +125°C

- High voltage
- Up to 100 kV on request

**CT79 & ST79**

Wet Tantalum
6 V<sub>DC</sub> to 125 V<sub>DC</sub>
1.7 µF to 2200 µF
−55°C +125°C

- Standard CLR79 / CLR81 & CLR93
- SMD version available
- Hermetically sealed tantalum cases

**MIL 39006 22/25 Series**

Wet Tantalum
6 V<sub>DC</sub> to 125 V<sub>DC</sub>
1.7 µF to 1800 µF
−55°C +125°C

- Case size T1, T2, T3, T4

**CTC21 & SMT47 Series**

Solid Tantalum (MnO<sub>2</sub>)
6.3 V<sub>DC</sub> to 63 V<sub>DC</sub>
5.6 µF to 680 µF
−55°C +125°C

- Very High Capacitance (100 µF @ 35V)
- High reliability
- Stacked version available
Wound Magnetics Components
Catalog products and custom designs from already qualified technologies

Generic standards: ESCC 3201 and MIL-STD-981
Overmolded components
Shock 100g & vibrations 30g
SMD or Pin Through Hole terminations

Wound Magnetics Components
Catalog products and custom designs from already qualified technologies

Generic standards: ESCC 3201 and MIL-STD-981
Overmolded components
Shock 100g & vibrations 30g
SMD or Pin Through Hole terminations

CCM Technology
Custom transformers
Up to 150 W
Custom inductors
–55°C+125°C

SES Technology
Common Mode Chokes CMC 15-22
4 mH - 0.5 A to 0.06 mH - 11 A
SMD filtering chokes SESI 9.1-32
700µH - 0.2 A to 4.7µH - 27 A
Custom transformers up to 150 W
–55°C+125°C

Toroidal transformers
Technology
Common Mode Chokes
CMC 17-14
140µH - 7.2 A to 69.2 mH - 1.1 A
Custom designs

Multiple toroidal magnetic cores ⇒ more energy
Improved Rth
SMD terminations
QML technology
Ideal for multi outputs transformers

MSCI Series
MSCI 10K - MSCI 12K
MSCI 20K - MSCI H01
0.01µH - 750 mA to 10µH - 87 mA

DBIT Series
Bus Transformers
3.81 mm to 17 mm high

Excellent Q-factor
ESCC 3201/008 qualified
Perfect for RF applications

Low profile
Listed on ESA EPPL
According to MIL-STD-1553 A & B
Custom designs available
Electromechanical Solutions
Custom design available on request

**Miniature Filters**
- Ø 3 to 10 mm
- 2.5 V_{DC} to 100 V_{DC}
- 10 pF to 4.4 μF
- Up to 35 A
- −55°C to +125°C
- 0 dB to 80 dB
- Metallic package ⇒ better shielding
- C, L, Pi, & T type filters
- Perfect sealing (glass or resin)

**Tuning Elements**
- Metallic Dielectric Sapphite, Quartz, Alumina
- Resistive
- Up to 100 GHz (L to Ka band)
- Custom designs

**Invar Screws**
- Ø 1.2 to 2 mm
- Finest Thread 0.25
- Maximum Length 8 to 11 mm
- Tolerances 6G

**Slip ring Assembly**
- Slip ring
  - Up to 150 tracks
  - 1.6 A/track
  - Signal or Power
- Potentiometer
  - Wirewound
  - Redundant
  - Precision 0.15°

**Linear Potentiometers**
- Linearity 0.1%
- −55°C to +125°C
- Repeatability 10 μm

**Rotary Potentiometers**
- Linearity 0.1°
- −55°C to +125°C
- Shock 50g · 1/2 sinus · 11 ms
- Vibrations 20g · 1.5mm
- 10 to 500 Hz

**Electrical travel from 10 to 100 mm**
**Housing in anodized aluminum or stainless steel**

**High precision, frequency, resolution**
**Self-locking mechanism**
**Cavity filter, IMUX, OMUX, waveguide**

**Slip-ring & potentiometer assembly**
**Bearingless ⇒ weight saving**
**Perfect for solar array and antenna drive mechanism**

**High precision, frequency, resolution**
**Low coefficient of thermal expansion**
**Ka, Ku, Q band & beyond**

**Miniature Filters**
- Ø 3 to 10 mm
- 2.5 V_{DC} to 100 V_{DC}
- 10 pF to 4.4 μF
- Up to 35 A
- −55°C to +125°C
- 0 dB to 80 dB

**Tuning Elements**
- Metallic Dielectric Sapphite, Quartz, Alumina
- Resistive
- Up to 100 GHz (L to Ka band)
- Custom designs

**Invar Screws**
- Ø 1.2 to 2 mm
- Finest Thread 0.25
- Maximum Length 8 to 11 mm
- Tolerances 6G

**Slip ring Assembly**
- Slip ring
  - Up to 150 tracks
  - 1.6 A/track
  - Signal or Power
- Potentiometer
  - Wirewound
  - Redundant
  - Precision 0.15°

**Linear Potentiometers**
- Linearity 0.1%
- −55°C to +125°C
- Repeatability 10 μm

**Rotary Potentiometers**
- Linearity 0.1°
- −55°C to +125°C
- Shock 50g · 1/2 sinus · 11 ms
- Vibrations 20g · 1.5mm
- 10 to 500 Hz