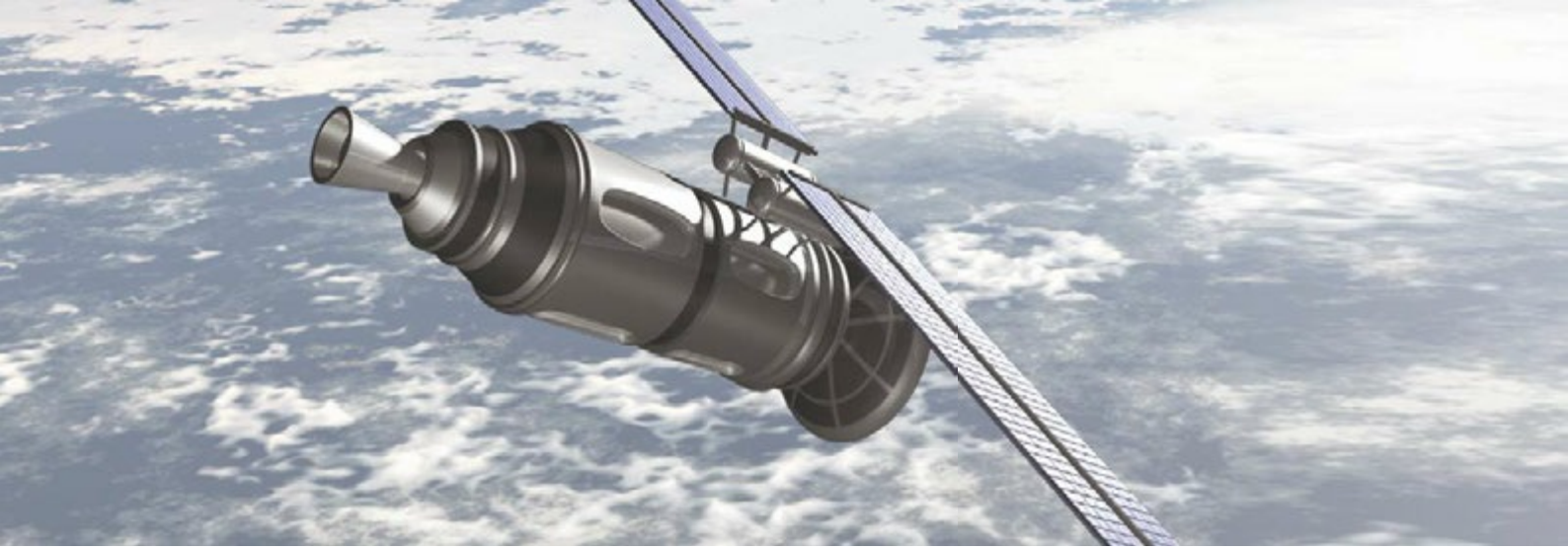


WHO IS EXXELIA

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

13 Manufacturing Locations

50 ESA Qualified Series

ISO 9001
EN 9100
AS 9100
Certified

In more than **30 countries**

1 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

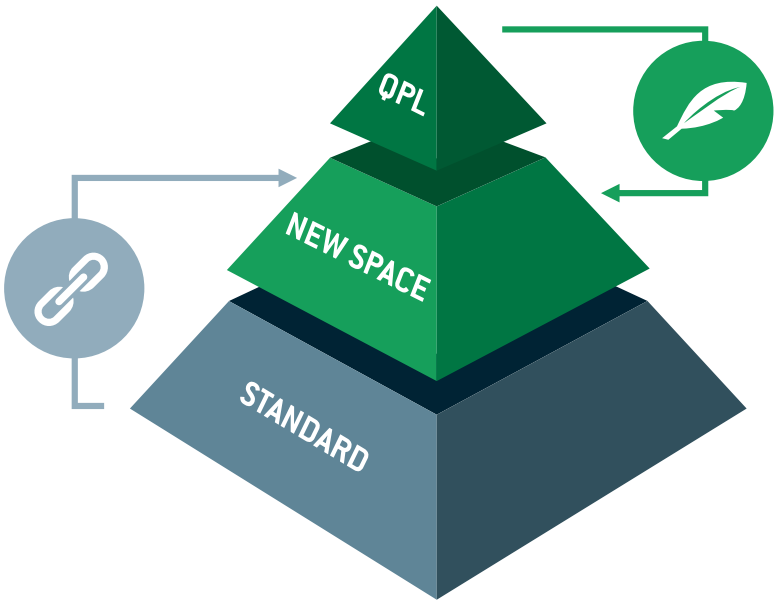
Offer new space components to answer the need of increased competitivness and quicker go-to-market.

OFFER FOR NEW SPACE

ENHANCED RELIABILITY

Additional screening included in our process.

All parts ready to use without additional incomming screening.



A LIGHTER PROCESS FROM A TO Z

Reduced inter-operation inspections.

No LAT test, no paperwork.

Delivered with a standard CoC only.

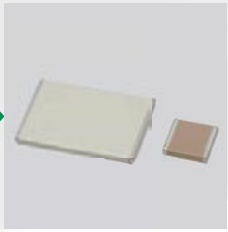
Capacitors

Custom design available on request

High voltage

SMD

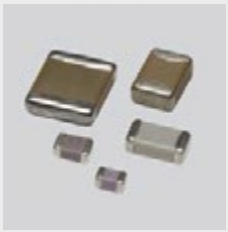
C48X Ceramic: high capacitance values, high stability under voltage



C Series

Sizes 1812 to 6550

NP0. X7R & C48X
200 V_{DC} to 10 kV_{DC}
10 pF to 6.8 µF
–55°C +125°C



CEC / CNC Series

Sizes 0402 to 2220

NP0 & X7R
10 V_{DC} to 1000 V_{DC}
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

High capacitance

Stacked technology

SMD or through-hole connections

CNC 3X & 5X

Sizes 2220 to 6080

X7R
16 V_{DC} to 500 V_{DC}
100 nF to 180 µF
–55°C +125°C

Radial Capacitors

TCF, TCK Series

NP0, X7R & C48X
63 V_{DC} to 10 kV_{DC}
10 pF to 6.8 µF
–55°C +125°C

High voltage

Molded, or conformal coated cases

C48X Ceramic: high capacitance values, high stability under voltage

Ultra High-Q

High capacitance

Low ESR

High self resonant frequencies

Ribbon leads for SMD

CH / SH Series

Sizes 0505 & 1111

P100 & NP0
Up to 1500 V_{DC}
0.1 pF to 1000 pF
–55°C +175°C

Ceramic - Film - Tantalum

PHM Series

PEN HV

250 V_{DC} to 1000 V_{DC}
0.15 µF to 68 µF
–55°C +155°C

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

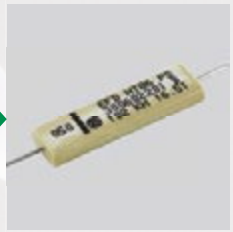
High energy density
Low ESR & ESL
Light weight

PM Series

Metallized PET

50 V_{DC} to 1250 V_{DC}
0.022 µF to 180 µF
–55°C +125°C

High voltage
Up to 100 kV on request



HT Series

Reconstituted Mica

1500 V_{DC} to 20 kV_{DC}
100 pF to 1.5 µF
–55°C +125°C

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

CT79 & ST79

Wet Tantalum

6 V_{DC} to 125 V_{DC}
1.7 µF to 2200 µF
–55°C +125°C
Case size A, B, C, D

MIL M39006/22 level M
MIL M39006/25 level M

MIL 39006 22/25 Series

Wet Tantalum

6 V_{DC} to 125 V_{DC}
1.7 µF to 1800 µF
–55°C +125°C
Case size T1, T2, T3, T4

CTC21 & SMT47 Series

Solid Tantalum (MnO_2)

6.3 V_{DC} to 63 V_{DC}
5.6 µF to 680 µF
–55°C +125°C
Case size C, D

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

SESI 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
700 µH - 0.2 A to 4.7 µH - 27 A
Custom transformers up to 150 W
–55°C +125°C

New qualification

CCM Technology

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

Up to 30% more power density vs standard technology

Improved Rth

SMD terminations

QML technology

Ideal for multi outputs transformers

New qualification
TO Technology

Toroidal transfert Technology

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

Multiple toroidal magnetic cores ⇨ more energy

Improved Rth

Custom product: current transformer

MSCI Series

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

Excellent Q-factor

ESCC 3201/008 qualified

Perfect for RF applications

Low profile

Listed on ESA EPPL

According to MIL-STD-1553 A & B

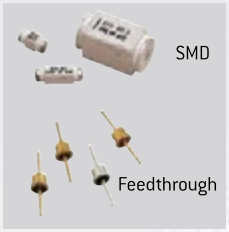
Custom designs available

DBIT Series

Bus Transformers
3.81 mm to 17 mm high

Electromechanical Solutions

Custom design available on request



Miniature Filters

Ø 3 to 10 mm
25 V_{DC} to 100 V_{DC}
10 pF to 4.4µ F
Up to 35 A
–55°C +125°C
0 dB to 80 dB

Metallic package ⇨ better shielding

C, L, Pi, & T type filters

Perfect sealing (glass or resin)

High precision, frequency, resolution

Self-locking mechanism

Cavity filter, IMUX, OMUX, waveguide

Tuning Elements

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

High precision, frequency, resolution

Low coefficient of thermal expansion

Ka, Ku, Q band & beyond

Invar Screws

Ø 1.2 to 2 mm
Finest Thread 0.25
Maximum Length 8 to 11 mm
Tolerances 6G

Slip-ring & potentiometer assembly

Bearingless ⇨ weight saving

Perfect for solar array and antenna drive mechanism

Slip ring Assembly

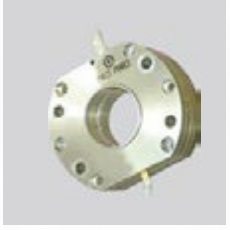
Slip ring	**Potentiometer**
Up to 150 tracks	Wirewound
1,6 A /track	Redundant
Signal or Power	Precision 0,15°

Electrical travel from 10 to 100 mm

Housing in anodized aluminum or stainless steel

Linear Potentiometers

Linearity 0.1%
–55°C +125°C
Repeatability 10 µm



Rotary Potentiometers

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

Single /dual rotary /pancake potentiometer

High performance

Miniaturization