

JUICE Mission to Jupiter: Exxelia high reliability passive components ready to withstand extreme space conditions

May 5, 2023 - Paris, France – Exxelia, one of the world leaders in high-performance passive component design and manufacturing, is proud to announce that its capacitors and magnetics have been selected for use in the European Space Agency's (ESA) JUICE (Jupiter Icy Moons Explorer) mission.



Exxelia is known for the [quality and reliability of its products, making it a popular choice for space missions.](#)

Exxelia components are used in many embedded systems on board the JUICE mission. Selected components include [capacitors](#) ([High Voltage C Series X7R](#) & [TCK Series X7R](#), [CEC Series NPO](#), [Polyester PET PM 948](#)) and [magnetics](#) ([Inductors MPC1](#) and [SESI](#), [Common mode choke CMC](#) and [specific transformers](#)). All have been carefully designed and tested to withstand the extreme conditions of space.

Exxelia has been working closely on this project for more than 10 years, notably on the GALA (GANymede Laser Altimeter) and MAJIS (Moon and Jupiter Imaging Spectrometer) instruments.

Conditions in space are extreme, with high levels of radiation, drastic temperature variations, and intense vibrations. Exxelia components have been designed to withstand these conditions, providing consistent and reliable performance throughout the mission, proven by a qualification testing that mimics what they will be seeing during their approximately 15 years of service.

About Exxelia

Exxelia is a leading global designer and manufacturer of high performance passive components and subsystems with factories in France, Morocco, United States, India and Vietnam. Exxelia's product portfolio includes a wide range of capacitors (film, tantalum, ceramic and electrolytic capacitors) and ruggedized magnetic products (inductors, transformers, rotor, stator, etc.), resistors, slip rings, position sensors, medical sensors and high-precision mechanical parts. Recognized worldwide for its advanced design and technical expertise, Exxelia develops both "catalog" and "custom" products exclusively serving high-reliability markets such as aeronautic, space, defense, medical, transportation, telecommunication infrastructure and advanced industrial applications. Additional information can be found at exxelia.com.

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The JUICE mission is an ambitious mission aimed at studying Jupiter and three of its largest moons, Callisto, Ganymede, and Europa, with the goal of better understanding the origin and evolution of planetary systems. Exxelia's components will play a key role in collecting vital scientific data, particularly for measuring magnetic fields in the vicinity of these moons.

Strong of its **40+ years' experience in space**, Exxelia offers the most complete [space qualified passive components](#) portfolio

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