

## Space Passive Component Days - Preliminary Programme

### Tuesday 15<sup>th</sup> October 2024

Start Time	End Time	Title	
08:30	09:30	Registration Desk Opening	
09:30	12:00	ESCC training course - Part I	
12:00	13:00	Lunch	
13:00	15:30	EEE Passives Seminar	ESCC training course - Part II
15:30	18:00	ESA Site Tour & Space Expo Museum <i>Only available to pre-registered participants</i>	

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### Wednesday 16<sup>th</sup> October 2024

Start Time	End Time	Topic	Title	Company
08:30	09:30		Registration Desk Opening	
09:30	09:50		Welcome Speech - Keynote Talk	
09:50	10:10		Introduction & Instructions	
10:10	10:40	Application, Trends & Needs	Space Passive Components: Latest News, Activities, and Trends	ESA/ESTEC, Netherlands
10:40	11:00		L4: Moons of the Giant Planets: it will be cold, dark and far away from home	ESA/ESTEC, Netherlands
11:00	11:30	Networking break		
11:30	11:50	Technology Roadmaps	Road Map for Space Harness - Vision and Opportunities for DC Harness Technologies	Airbus Defence and Space, France
11:50	12:10	Materials and Processes	Ultracapacitor Technology in the Space Environment	FastCap Ultracapacitors, USA
12:10	12:30		Flat Cable Harness for Space Launcher Applications	ArianeGroup, France
12:30	13:00	Technical Introduction of Components (TICs) <i>7min per TIC</i>	High Power SIW components for telecom satellite missions	Ecliptic Defence and Space - Cyprus
			Heatbind - Advanced solid thermal retainer incorporated in monoblock card frame for conduction cooled system	PERFORMANCE INTERCONNECT SAS France
			Planar Magnetics for Space Applications	Payton America Inc, USA
			Harp Technologies company overview and ferrite components	Harp Technologies Oy, Finland
13:00	14:30	Lunch		
14:00	14:30	Manufacturers' Private Roadmap Parallel Sessions Room number Aj019/Aj020	AXON' cable Private Roadmap Session	Isabellenhütte Private Roadmap Session
14:30	15:20	Poster Session		
15:20	16:00	Technical Introduction of Components (TICs) <i>7min per TIC</i>	Elevating Space Technology: Next-Gen Crystal Oscillators for advanced New Space applications	AXTAL GmbH - Germany
			Improved knowledge of the thermal behaviour of space-qualified CCM and SESI component families	Exxelia - France
			BizLink ESCC Cables and custom solutions for space applications	Bizlink Special Cables Germany
			Expect More Technology - Peltier Thermo-electric generators TEG/TEM	Isabellenhütte Heusler- Germany
			New SPL Series of fixed attenuator and Thermopad®	Smiths Interconnect, France
16:00	16:20	kiNew Developments	SMD Compatible LTCC Circulators in Ku-Band	IMT-Atlantique, France
16:20	16:40		The Benefits of Using High-Reliability Polymer Tantalum Capacitors	KEMET/YAGEO, USA
16:40	17:00		SWAP-C Ka-Band High Power Duplexer Based on the Emerging AFSIW Technology	Exens Solutions, France
17:00	17:20		Fast-lock ZIF interconnections and connectorless flat cables	Axon, France
17:20	17:40	Technology Roadmaps	Technological challenges and roadmap for flexible heaters	IRCA s.p.a. Zoppas Industries, Italy
17:40	18:00	Application, Trends & Needs	Selection of POGO-Pin based connector for ESA COMET Interceptor Mission	ESA/ESTEC, Netherlands
18:00	21:00	Welcome Drink		

# Space Passive Component Days - Preliminary Programme

## Thursday 17<sup>th</sup> October 2024

Clara Moldovan, Swistor, Victoria Manzi Orezza

Start Time	End Time	Topic	Title		Company		
08:30	09:00	Session Chair & Introduction					
09:00	09:20	Technology Roadmaps	Airbus DS Road-map		Airbus D&S, France		
09:20	09:40	New Developments	Development of HYPERBITS Employing S-FECT Technology for High Data Rate Applications		PERFORMANCE INTERCONNECT SAS, France		
09:40	10:00		RF Mineral Insulated Coaxial Cable, Impedance 50 Ohm		THERMOCOAX, France		
10:00	10:20		Commercialization of GN3 Graphene Material as an Active Electrode for High Energy Supercapacitors		EPCI, Czech Republic		
10:20	10:40	Application, Trends & Needs	Development of a new Fast-Locking RF Connector Interface up to W-Band		RADIALL SA, France		
10:40	11:00	Normative System & Standards	Review of SMD MLCC technology and Soldering assembly verification for Space applications		Airbus D&S, Germany		
11:00	11:30	Networking Break					
11:30	11:50	Test, Reliability & Evaluation for space	Qualification Challenges and Approaches for Cryogenic Temperature Testing of EEE Components in the ESA ARIEL Science Mission		Alter Technology TÜV NORD, Spain		
11:50	12:10	Technology Roadmaps	The latest activities related to the passive components in JAXA		JAXA, Japan		
12:10	12:30		Unlocking the Future of Space Electronics with the Advanced Manufacturing Revolution		ESA/ECSAT, UK		
12:30	13:00	Technical Introduction of Components (TICs) <i>7min per TIC</i>	A Modular High Speed Twinax and Coax Connector System for Spacecraft Datalinks		Glenair GmbH - Germany		
			Secure fast lock nano D connectors and small, low cost, quick locking composite connectors		Axon, France		
			Tinning of passives and all other small components to prevent tin whiskers, to the GEIA standard		Retronix Inc, Great Britain		
			EP2 high energy Ta capacitor and modules for high voltage, energy storage and pulse power		Vishay, France		
13:00	14:30	Lunch					
Start Time	End Time	Title		Company	Title	Company	
		Parallel Session – NEWTON 1			Parallel Session – NEWTON 2		
14:30	14:50	3D printing of passive electronic components - from the viewpoint of a component manufacturer		TDK Electronics, Austria	High Frequency Behavior of CHA Series Resistors Following AEC- Q200 Qualification Tests		Vishay SA, France
14:50	15:10	New Additive Manufacturing Technology for Space Applications		Nuvotronics, USA	Development of highly integrated W-band circulators/isolators based on Substrate Integrated Waveguide (SIW) technology		Harp Technologies Ltd, Finland
15:10	15:30	Passive Massive MIMO Hybrid RF-Perovskite Energy Harvesting Frontend for LEO Satellite Applications		Manchester Metropolitan Univer, UK	MINCOR - Minimisation of Crystal oscillator cosmic radiation effects		RAKON, France
15:30	15:50	Hybrid energy Storage Based on Supercapacitors and Conventional Batteries system for Nanosatellite Applications		Algerian Space Agency	Surface Mount non-reciprocal devices		TRAK Microwave Limited, Great Britain
15:50	16:10	COTS-Plus / Alternate Grade bulk capacitor for LEO flight Platforms		Kyocera AVX Czech Republic	Recent achievements on SCHURTER's new generation wafer- scalable, hermetically sealed chip fuse technology		SCHURTER AG, Switzerland
16:10	16:30	High Energy Density Supercapacitors for Space Applications: A Leap Forward in Space Exploration Energy Systems		Swistor, Switzerland	Towards W-band self-biased circulators for next generation of VHTS payload		Lab-STICC / UBO, France
16:30	16:50	Networking break					
16:50	18:00	Interactive Panel Discussion	"Advancing Space Exploration: The Role of AI Across the Entire EEE Life Cycle"				
19:30	01:00	Gala Dinner @ Beach Pavilion "De Zeemeeuw", Kon. Wilhelmina Boulevard 108, Noordwijk					

## Space Passive Component Days - Preliminary Programme

### Friday 18<sup>th</sup> October 2024

Start Time	End Time	Topic	Title	Company
08:30	09:00	Session Chair & Introduction		
09:00	09:20	Technology Roadmaps	Thales Alenia Space Road Map on Passive components	THALES ALENIA SPACE, France
09:20	09:40	New Developments	Solid State Polymer Multilayer Capacitors for High Temperature Applications	Polycharge America INC, USA
09:40	10:00	Commercial Off-The-Shelf (COTS)	Performance of power and signal pressfit connectors in terms of reworks and repairs	Creotech Instruments S.A., Poland
10:00	10:20	New Developments	Innovative integrated magnetic for DAB power converter	Exxelia, France
10:20	10:40		Space grade S-band high power isolator development	TKI-Ferrit Ltd, Hungary
10:40	11:00	Networking break		
11:00	11:20	Evaluation & Qualification	Stress Testing of Chip Aluminum Polymer Capacitors	Jacobs Technology Inc., USA
11:20	11:40	New Developments	Graphene-based bank of supercapacitors from electrode to system level	Pleione Energy S.A, Greece
11:40	12:00		Latching Solid state relay replacing mechanical relay	Isocom Limited, UK
12:00	12:20		Significant improvements in energy density of nanocomposite dielectric capacitors with nanoparticle surface engineering	University of Southern Denmark
12:20	12:40	Test, Reliability & Evaluation for space	Failure Analysis after in orbit anomaly on COMEPA bimetallic thermostat TH47	ESA/ESTEC, Netherlands
12:40	13:00	Closing Session & Award Ceremony		
13:00	14:30	Lunch		

## Space Passive Component Days – Preliminary Programme

**Poster Session**  
**Wednesday 16<sup>th</sup> October 2024 @14h30**

Title
Evolving Satellite from bespoke to production
Ku/K-Band LTCC SMD Circulator for Space Applications
Advancing Space Communication: Designing a Wideband Very High Power L-band Isolator for Galileo's Next Generation
Inkjet printed RF baluns with broad bandwidth and RF co-designed bandpass filtering
Modelling and simulation of supercapacitor for future space application
Evaluation of Automotive Grade Resistors for Space Flight Evaluation
3D Printed monolithically Integrated 3D Bandpass Filtering Technologies
Cryogenic Evaluation of a COTS Latching Relay