US Owned Company and
North American Manufactured

Drone / UAV

Unmanned Aerial Vehicle SOLUTIONS

Custom Solutions Available

High Reliability Services

- AEC-Q200
- Mil-Standards
- Testing Capabilities
- Quality Certifications
- Upscreening Services
- RF Testing Capabilities
- Environmental Testing Special

CERTIFICATIONS

AS9100 | CTPAT | ITAR

JOHANSONs passive components empower Next-gen drone & UAV systems, enhancing both navigation & power.

JOHANSON TECHNOLOGY

JOHANSON DIELECTRICS

Application to Products Chart

LEGEND	
All Drones	X
Large - Predator Type Dornes	X

TYPICAL APPLICATIONS	1 EMI Filters	2 High-Q MLCC	3 Hi-Rel Low Voltage NPO/X7R MLCCs	4 High Cap X7R/HiQ MLCC (1-1000uF)	5 Antennas	6 Integrated Passive Components	7 RF Inductors	8 High Voltage MLCC (500V-6KV)	9 SMPS Stacked MLCCs	10 High Voltage Radial	11 Single Layer Capacitors	12 Thin Film	13 Planars & Discoidals
Autonomous Navigation & AI Modules	●	●	●	●	●		●						
Avionics Power Regulation								●	●	●			
EMI & RFI Mitigation	●			●									●
Electric Motor Noise Mitigation	●			●									●
Electronic Countermeasures (ECM)		●		●			●					●	
Encrypted Communications		●	●		●		●						
Filtered Bulkhead Connectors													●
First-Person View (FPV) Immersive Goggles	●	●				●	●						
Flight Control Systems (FCS)	●		●	●		●		●	●				
GNSS Navigation Modules		●	●		●	●	●						
Ignition & Detonator Control Modules	●	●		●		●		●			●		
Long-Endurance Battery Packs				●					●	●			
Microwave Systems & Phased Arrays		●					●				●	●	
Miniaturized Synthesizers & Oscillators	●		●	●			●		●		●	●	
Payload Release Systems				●						●			
Portable Power Units (PPUs)	●												
Power Distribution Units (PDU)	●			●					●	●			●
Radar Altimeters & Proximity Sensors		●		●			●						
SWaP-Optimized Avionics				●					●		●		
Thermal Imaging & Targeting Systems	●		●	●									

NOTE: Don't see what your're looking for? Contact Us

JOHANSON Applications Engineers at: https://www.johansontechnology.com/contact/ask-a-question/

In-House Testing Capabilities

Drones (UAVs) demand precise navigation, reliable communication, and efficient power regulation within compact platforms. To meet these needs, JOHANSON provides passive components that support both RF and power applications.

Backed by 60+ years of design and manufacturing, our engineers collaborate on custom solutions. As a North American owned and manufactured company, JOHANSON is uniquely positioned to deliver high-reliability components.

In-House Testing Capabilities

In addition to manufacturing, the Camarillo, CA facility has a complete High Reliability department with in-house testing capabilities.

Comprehensive Mil-Standard Testing Groups A, B & C

- Available as necessary

Electrical & Mechanical Inspections

- Hot IR Testing
- 100% Electrical Testing
- Full Data on Serialized Units
- 100% Visual Inspection (Mil 883 Class K or S Options)
- Cap, DF, IR, DWV, Voltage Breakdown
- Temperature Voltage Coefficient (TVC)
- Temperature Capacitance Coefficient (TCC)

Analytical Testing

- XRF Analysis
- SEM Inspection
- Solderability Testing
- Radiographic Inspection
- Destructive Physical Analysis (DPA)
- Acoustic Microscopy (Sonoscan) Inspection

RF & Microwave Testing Expertise

- Vector Network Analyzer Measurements
- Resonant Line Measurements for ESR at Frequency

Environmental Testing

- Life Testing
- Steam Age
- Bend Testing
- Humidity Testing
- Wire Bond Testing
- Moisture Resistance
- Temperature Cycling
- HALT / HASS Testing
- Thermal Shock Testing
- Shock / Vibration Testing
- Resistance to Solder Heat
- Shear Test / Bond Pull Test
- Burn In / Voltage Conditioning
- Class H, K or S Element Evaluation

RESOURCE: Simulation Software & Designer Libraries:

https://www.johansontechnology.com/downloads/designer-libraries/

https://www.johansontechnology.com/downloads/avago-appcad/

https://jtisoft.johansontechnology.com/

Available Termination Options

MLCC TERMINATION OPTIONS (REPLATING OF COMMERCIAL PRODUCTS)

Termination Type	Solder Barrier Prevent Leaching	RoHS	Primary Applications
Ni/Sn	Ni	Yes	All solder applications where RoHS is required. Johanson's standard termination used by largest number of customers. Most likely to be in stock at Johanson or authorized distributors.
Ni/SnPb	Ni	No	Military applications where lead (Pb) mitigates Tin whisker growth.
Flexterm Ni/Sn	Ni	Yes	Flexible terminations for high physical stress applications
Flexterm Ni/SnPb	Ni	No	Flexible terminations for high physical stress applications
Ni/Au Gold Termination	Ni	Yes	Parts are epoxied in place or a mix of solder and epoxy attachment is used. Controlled Au thickness to avoid Gold embrittlement issues when soldering. Premium price.
Cu/Sn (Copper barrier)	Cu	Yes	This non-magnetic termination is best suited for application where very high inductance / magnetic fields are present. Use where RoHS is required. Most common non-magnetic termination.
Cu/SnPb (Copper barrier)	Cu	No	This non-magnetic termination is best suited for application where very high inductance / magnetic fields are present.
PdAg	None	Yes	No plating - solderable thick film PdAg alloy termination. Premium price.
PtAg	None	Yes	No plating - solderable thick film PtAg alloy termination. Premium price.

SINGLE LAYER TERMINATION OPTIONS

TiW/Ni/Au	Ni	Yes	Chip & Au wire where capacitor is soldered in place or a mix of solder and epoxy attachment is used.
TiW/Au	None	Yes	Chip & Au wire where capacitor is epoxy attached. Optimum termination for wirebonding. Cannot solder this chip as substantial leaching will occur.

LEAD-FRAME TERMINATION OPTIONS

Ni	None	Yes	Used in very high-temp applications
Cu/Ni/SnPb	Ni	No	Typically used in military applications
CuSn6 Phosphor Bronze	Ni	No	SnPb plate
Iron-Nickel Alloy	Ni	Yes	Sn plate
Pure Silver Leads	None	Yes	Used in very high power RF. Premium price.

Contact **JOHANSON** to quote your custom lead materials & types.

ASK A QUESTION: If you have unique needs or require additional technical information, contact your Johanson Representative or submit a technical request on our website at: https://www.johansontechnology.com/ask-a-question