



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Mercury Mission Systems, LLC
1845 W. 205th Street
Torrance, CA 90501

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 07 February 2023

Certificate Number: L2469



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Mercury Mission Systems, LLC

1845 W. 205th Street
Torrance, CA 90501
Hue Tang 310 320 3088

TESTING

Valid to: **February 7, 2023**

Certificate Number: **L2469**

Mechanical - Environmental Stress Screening

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Environmental Stress Screening (ESS) – Temperature Cycling	Environmental Stress Screening (ESS) per the guidelines of MIL-HDBK-2164 as defined in Mercury Mission Systems, LLC Procedure SCP-01	MIL-HDBK-2164, Categories 1 thru 6	Qualmark Typhoon 2.0 HALT/HASS Chamber
Environmental Stress Screening (ESS) – Random Vibration	Environmental Stress Screening (ESS) per the guidelines of MIL-HDBK-2164 as defined in Mercury Mission Systems, LLC Procedure SCP-01	MIL-HDBK-2164, Categories 1 thru 6	Qualmark Typhoon 2.0 HALT/HASS Chamber

Electromagnetic Compatibility (EMC) / Electromagnetic Interference (EMI)/Electromagnetic Susceptibility (EMS)

Test Method	Test Specification(s)	Range	Comments
Conducted Emission	MIL-STD-461F and G, Test Method CE101	30 Hz to 10 kHz. Current Limit: Figure CE101-1 of MIL-STD-461	Mercury Test Procedure SCP-02
	MIL-STD-461F and G, Test Method CE102	10 kHz to 10 MHz. Voltage Limit: Figure CE102-1 of MIL-STD-461	
	MIL-STD-461F and G, Test Method CE106	Conducted Emissions, Antenna Port, 10 kHz to 40 GHz	
Conducted Susceptibility	MIL-STD-461F and G, Test Method CS101	30 Hz to 150 kHz. Power Limit: Figure CS101-2 of MIL-STD-461	
	MIL-STD-461F and G, Test Method CS114	10 kHz to 200 MHz. Current Limit – Curves 1-5, Figure CS114-1 of MIL-STD-461	



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Electromagnetic Compatibility (EMC) / Electromagnetic Interference (EMI)/Electromagnetic Susceptibility (EMS)

Test Method	Test Specification(s)	Range	Comments
	MIL-STD-461F and G, Test Method CS103	Conducted Susceptibility, Antenna Port, Intermodulation, 15 kHz to 10 GHz	Mercury Test Procedure SCP-02
	MIL-STD-461F and G, Test Method CS104	Conducted Susceptibility, Antenna Port, Rejection of Undesired Signals, 30 Hz to 20 GHz	
	MIL-STD-461F and G, Test Method CS115	Current Pulse Limit shown in Figure CS115-1 of MIL-STD-461	
	MIL-STD-461F and G, Test Method CS116	10 kHz to 100 MHz. Current Limit shown in Figure CS116-2 of MIL-STD-461	
Radiated Emission	MIL-STD-461F and G, Test Method RE101	30 Hz to 100 kHz. Magnetic Field Figure RE101-2 of MIL-STD-461	
	MIL-STD-461F and G, Test Method RE102	Electric-Field Radiation (dB μ V/m) limit Figure RE102-3 of MIL-STD-461 Aircraft: 2 MHz to 18 MHz	
	MIL-STD-461F and G, Test Method RE103	Radiated Emission, Antenna Spurious and Harmonic Outputs 10 kHz to 40 GHz	
Radiated Susceptibility	MIL-STD-461F and G, Test Method RS101	30 Hz to 100 kHz. Magnetic Field (dBpT) limit of Figure RS101-2	
	MIL-STD-461F and G, Test Method RS103	Limit shown in Table XI of MIL-STD-461, RS103 and the following frequency ranges: a) 10 kHz to 30 MHz b) 30 MHz to 18 GHz	
Electromagnetic Environment High Intensity Radiated Field (EME HIRF)	MIL-STD-464C, EME HIRF	0.01 MHz to 18 GHz and External E-field (V/m) of Table 1 of MIL-STD-464C	



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Electrical (Power Quality Test)

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Range	Comments
Electrostatic Discharge (ESD)	RTCA DO-160F, Section 25 MIL-STD-461F and G, Test Method CS118	A pulse of 15,000 volts in both positive and negative polarity	Mercury Test Procedure SCP-02
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 101	Measurements: 28Vdc, Inrush Current, Voltage, Load (VA), % Current Distortion, Amplitude vs. Frequency	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 102	TABLE LDC 102-I. MIL-STD-704 normal limits for steady state voltage	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 103	TABLE LDC 103-I. MIL-STD-704 limits for voltage distortion spectrum TABLE LDC 103-II. Test conditions for voltage distortion spectrum. TABLE LDC 103-III. Sample data sheet for LDC 103 voltage distortion spectrum	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 104	TABLE LDC 104-I. MIL-STD-704 limits for ripple DC voltage distortion TABLE LDC 104-II. Ripple frequency and amplitude TABLE LDC 104-III. Sample data sheet for LDC 104 total ripple	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 105	TABLE LDC 105-I. MIL-STD-704 limits for normal voltage transients TABLE LDC 105-II. Test conditions for MIL-STD-704A normal voltage transients. TABLE LDC 105-III. Test conditions for MIL-STD-704B, C, D, E and F normal voltage transients.	Mercury Test Procedure SCP-03



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Electrical (Power Quality Test)

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Range	Comments
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 201	TABLE LDC 201-I. MIL-STD-704 power transfer limits TABLE LDC 201-II. Test conditions for transfer interrupt	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 301	TABLE LDC 301-I. MIL-STD-704 abnormal limits for steady state voltage	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 302	TABLE LDC 302-I. MIL-STD-704 limits for abnormal voltage transients TABLE LDC 302-II. Test conditions for MIL-STD-704A abnormal voltage transients TABLE LDC 302-III. Test conditions for MIL-STD-704B, C, and D abnormal voltage transients. TABLE LDC 302-IV. Test condition for MIL-STD-704E and F abnormal voltage transients	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 401	TABLE LDC 401-I. MIL-STD-704 emergency limits for steady state voltage	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 501	TABLE LDC 501-I. MIL-STD-704 limits for starting voltage transients. TABLE LDC 501-II. Test conditions for MIL-STD-704A, B and C starting voltage transients TABLE LDC 501-III. Test conditions for MIL-STD-704D, E and F starting voltage transients	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 601	TABLE LDC 601-I. MIL-STD-704 power failure limits. TABLE LDC 601-II. Test conditions for power failures	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method LDC 602	TABLE LDC 602-I. MIL-STD-704 phase reversal requirement	Mercury Test Procedure SCP-03
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 101	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 102	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 103	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 104	MIL-HDBK-704-3	Mercury Test Procedure SCP-04



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Electrical (Power Quality Test)

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Range	Comments
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 105	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 106	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 107	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 108	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 109	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 110	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 201	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 301	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 302	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 303	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 401	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 601	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 602	MIL-HDBK-704-3	Mercury Test Procedure SCP-04
Aircraft Electrical Power Characteristics	MIL-STD-704A thru F, Test Method TAC 603	MIL-HDBK-704-3	Mercury Test Procedure SCP-04

Note:

1. This laboratory does not offer commercial testing service beyond Mercury products.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. L2469.

R. Douglas Leonard Jr., VP, PILR SBU