

ELECTROMAGNETIC LABORATORY



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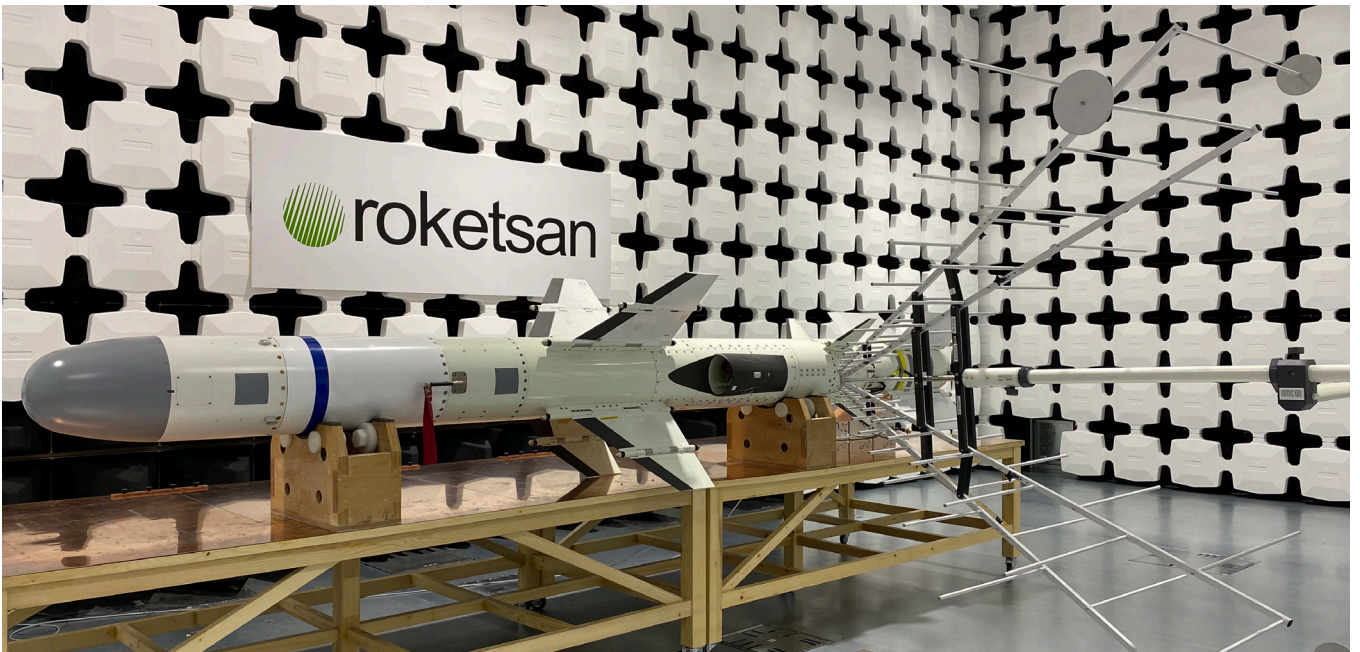
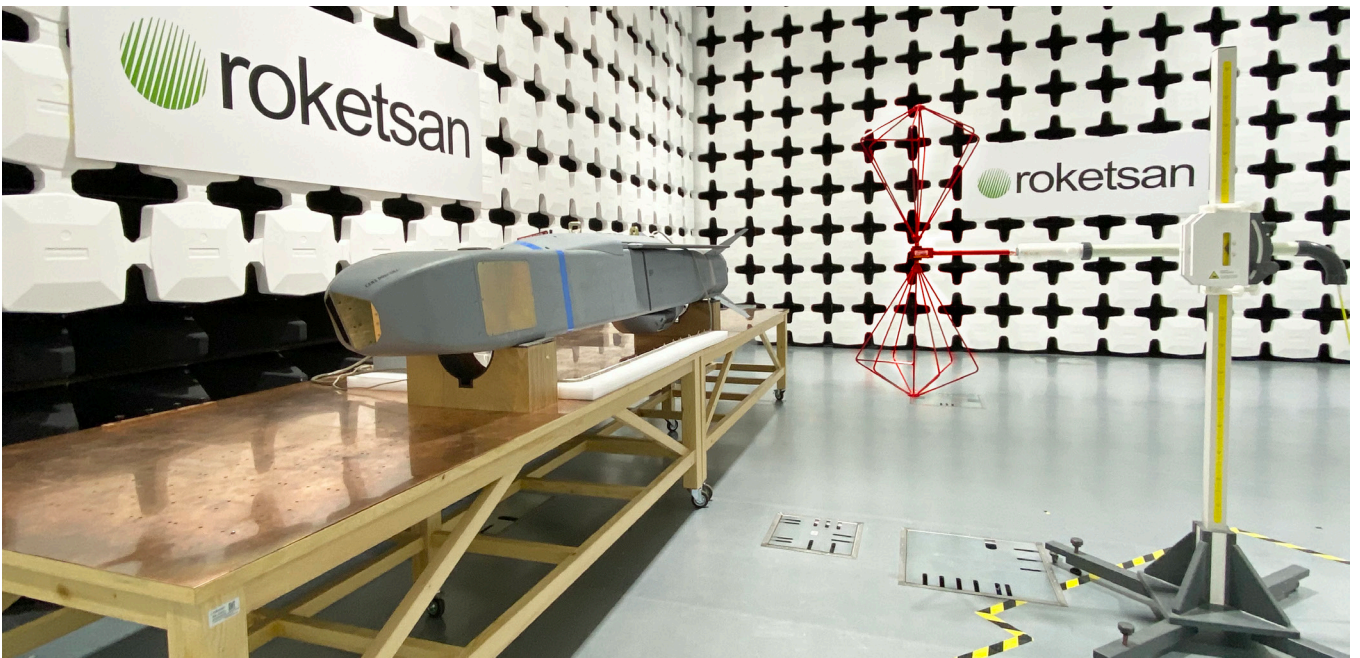
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SEMI-ANECHOIC SHIELDED ROOM

ROKETSAN Electromagnetic Laboratory initiated its activities in 2019. Tests can be performed in comply with MIL-STD-461 E/F/G

- Chamber Dimension: 16 x 12 x 7 m
- Chamber Door: 2.5 x 2.5 m
- Maximum Load Capacity: 5 Ton



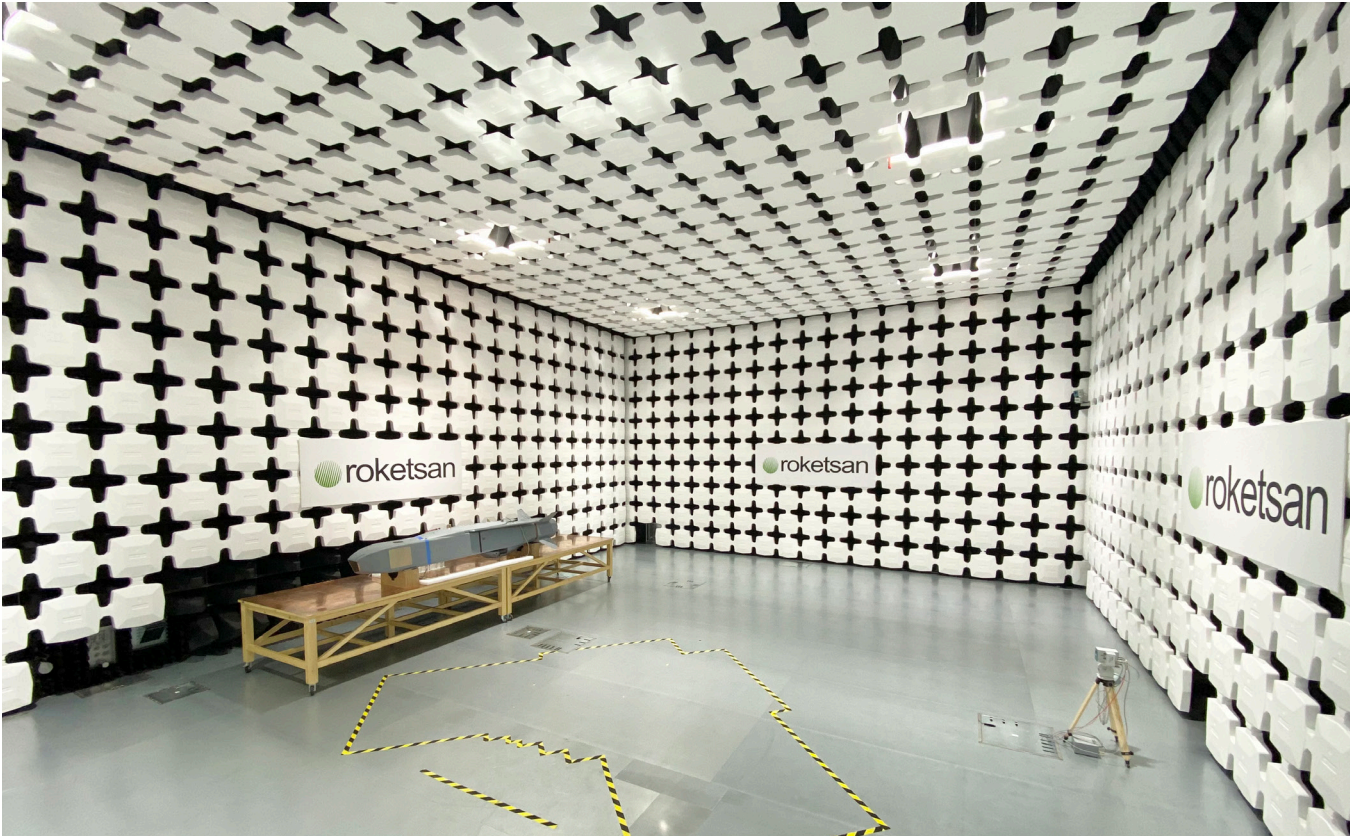
Semi-Anechoic Shielded Room

ELECTROMAGNETIC LABORATORY TEST CENTER CAPABILITIES

- Electromagnetic Compatibility Tests basically MIL-STD-461 E/F/G comply with ABCD standard

#	Requirement	Description
1	CE101	Conducted Emission, Power Leads: 30 Hz-10 kHz
2	CE102	Conducted Emission, Power Leads: 10 kHz-10 MHz
3	CS101	Conducted Susceptibility, Power Leads: 30 Hz-150 kHz
4	CS106	Conducted Susceptibility, Power Leads
5	CS114	Conducted Susceptibility, Bulk Cables, 10 kHz-200 MHz
6	CS115	Conducted Susceptibility, Bulk Cables, Impulse Excitation
7	CS116	Conducted Susceptibility, Bulk Cables, Damped Sinusoidal Transients, Power Leads
8	RE101	Radiated Emission, Magnetic, 30 Hz-100 kHz
9	RE102	Radiated Emission, Electric, 10 kHz-18 GHz
10	RS101	Radiated Susceptibility, Magnetic, 30 Hz-100 kHz
11	RS103*	Radiated Susceptibility, Electric, 2 MHz-18 GHz

*1-18 GHz 200 V/m , < 1 GHz için 50 V/m carried out at the level



ELECTROMAGNETIC TEST LABORATORY

The power line filters also installed on the test chamber. The capacity of the filters are as shown below.

- Equipment Under Test (EUT) Filters:
 - 115 VAC 3 Phase 63 A 400 Hz, x2
 - 36 VDC 1 Phase 50 A, x2
 - 115 VAC 1 Phase 32 A 400 Hz, x2
- UPS : 200 kVA
- Auxiliary Systems:
 - Fixed and Portable Shielded Camera



Electromagnetic Test Laboratory

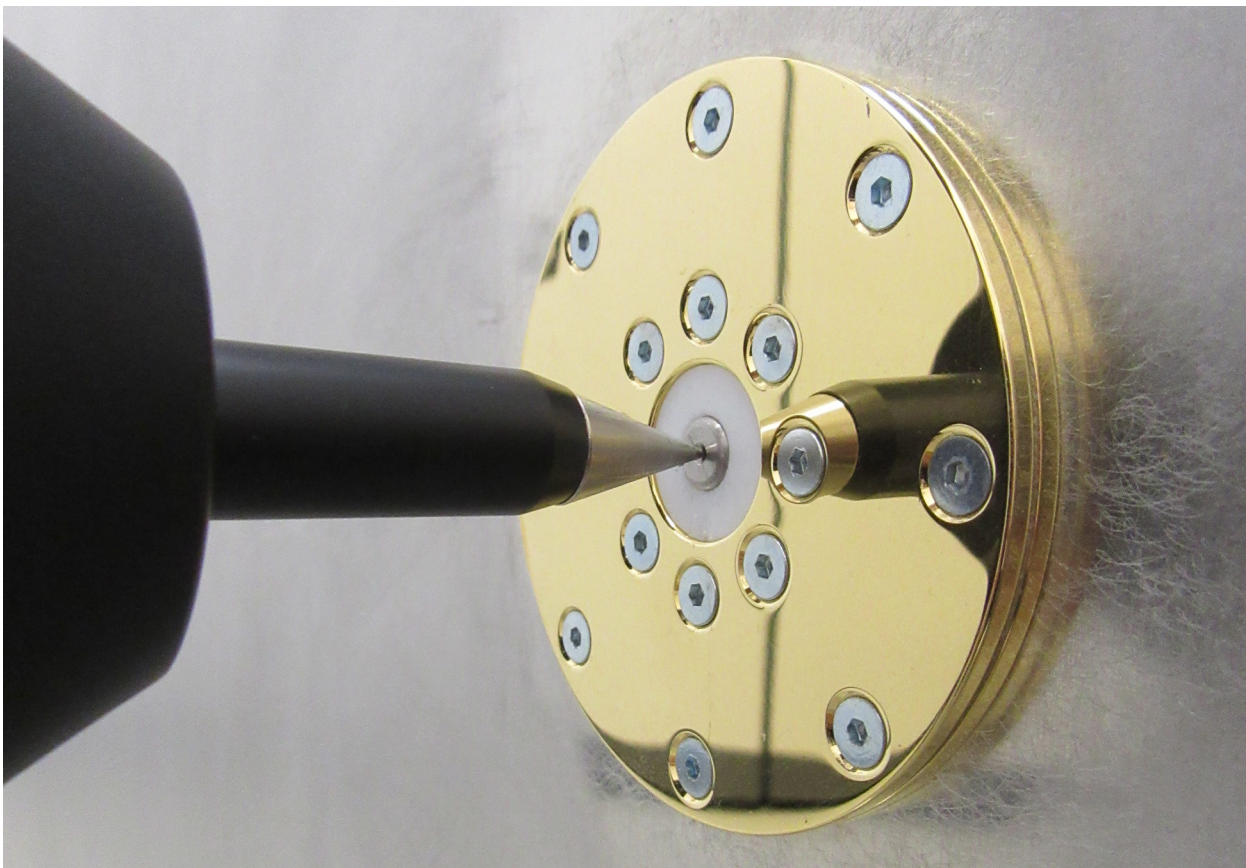
ELECTROSTATIC DISCHARGE

Personel-borne Electrostatic Discharge tests can be performed in accordance with military and civilian standards.

Applicable Standards	Available Test Modules	Maximum Voltage Capacity
<ul style="list-style-type: none">• MIL STD 331• RTCA DO 160• AECTP 500• EN61000 4 2	<ul style="list-style-type: none">• 150 pf 330 Ω• 500 pf 500 Ω• 500 pf 5000 Ω	30 kV

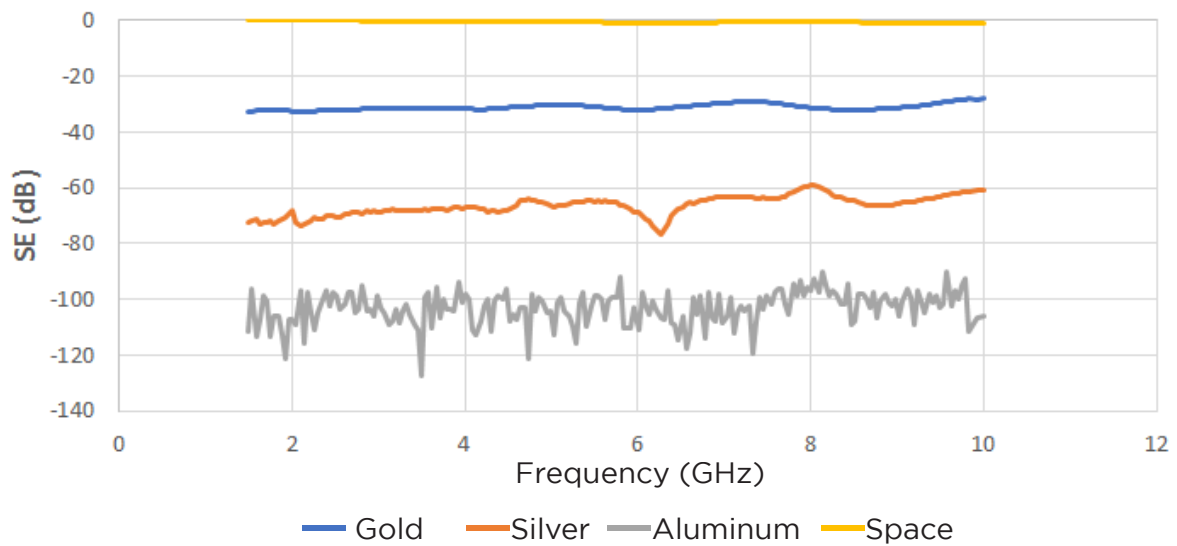
Electrostatic Discharge ESD Calibration Capability

Roketsan EMI/EMC test laboratory is able to perform ESD signal calibration/verification for both contact and air discharge.

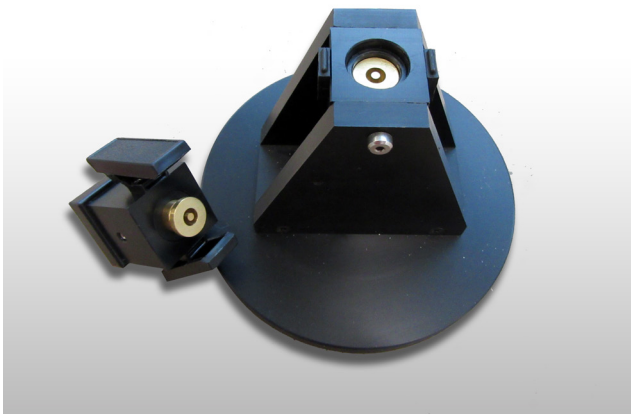


SHIELDING EFFECTIVENESS MEASUREMENT DEVICE

- EMI/EMC Test Laboratory is able to measure coupon level shielding effectiveness level between 30MHz-10 GHz. In addition, reflection and absorption rate measurements are presented.
- Measurements are carried out in accordance with the ASTM D4935 standard.



Test Modules



1.5 GHz - 10 GHz



30 MHz - 1.5 GHz

PLATFORM LEVEL ELECTROMAGNETIC ENVIRONMENT MEASUREMENT

- Preventing possible interference by measuring electric field level occurrence between the integrated system and platform such an aircraft, UAV, Helicopter, Shipboard and Submarine. Monitoring both RMS and broadband frequency selective emissions is existing.

Measurement Device	NBM-550	SRM - 3006
Probe	100 kHz - 6 GHz	9 kHz - 250 MHz (Three - Axis) 9 kHz - 300 MHz (Single - Axis)
	300 MHz - 50 GHz	27 kHz - 3 GHz (Three - Axis) 420 MHz - 6 GHz (Single - Axis)



AIRCRAFT ELEKCTRICAL POWER CHARACTERISTICS TEST EQUIPMENT

The purpose of this equipment is to ensure compatibility between the aircraft electric system, external power and airborne utilization equipment.

Applicable Standards

- MIL-STD-704
- RTCA-DO-160
- AIRBUS Standards
- BOEING Standards
- IEC-61000

Power Supply Specifications

- 30 kVA AC / 36 kW DC
- Frekans, DC-5 kHz
- 33 A (RMS) continuous
- 66 A (RMS) short, max 3 sec
- 250 A repeated peak







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