

An overview of our accredited product testing and inspection facilities



ABOUT US

Cranage EMC and Safety is a family run UKAS accredited test laboratory, founded nearly 30 years ago. We are UKAS accredited to evaluate your product for EMC, Electrical Safety, Mechanical, Environmental and Energy Related performance

We're based in North Shropshire, but if your equipment is large or in-situ, our engineers can come to your premises.

Service is at the heart of what we do and our team of experienced engineers take the time to guide, support and advise you.

We have the experience and facilities to test a vast range of products, from prosthetic limbs to illuminated road signs to fire alarm panels.





1833

WHY CHOOSE CRANAGE?

We are proud to be a UKAS accredited test laboratory, which gives manufacturers assurance of impartiality, technical competence and accurate results.

Your collaboration with Cranage is about more than just testing and we pride ourselves on our service levels. You will work with a specialist engineer, who will be in regular contact during your project so that you are always up to date with progress. As we have remained a family run business, we are able to be flexible and adapt to our customers needs.

Regardless of whether you're planning to export to Europe, North America, Australia or Saudi Arabia, we can support you with product compliance.

The image shows the interior of an electromagnetic compatibility (EMC) testing chamber. The walls, floor, and ceiling are covered with dark grey, pyramidal-shaped electromagnetic absorbers designed to eliminate reflections. On the left, a curved metallic structure is visible, featuring a series of yellow star-shaped markers. A bright light source in the lower-left corner creates a lens flare effect. The overall scene is dimly lit, emphasizing the texture and geometry of the absorbers.

A BRIEF OVERVIEW OF OUR CAPABILITIES

EMC TESTING

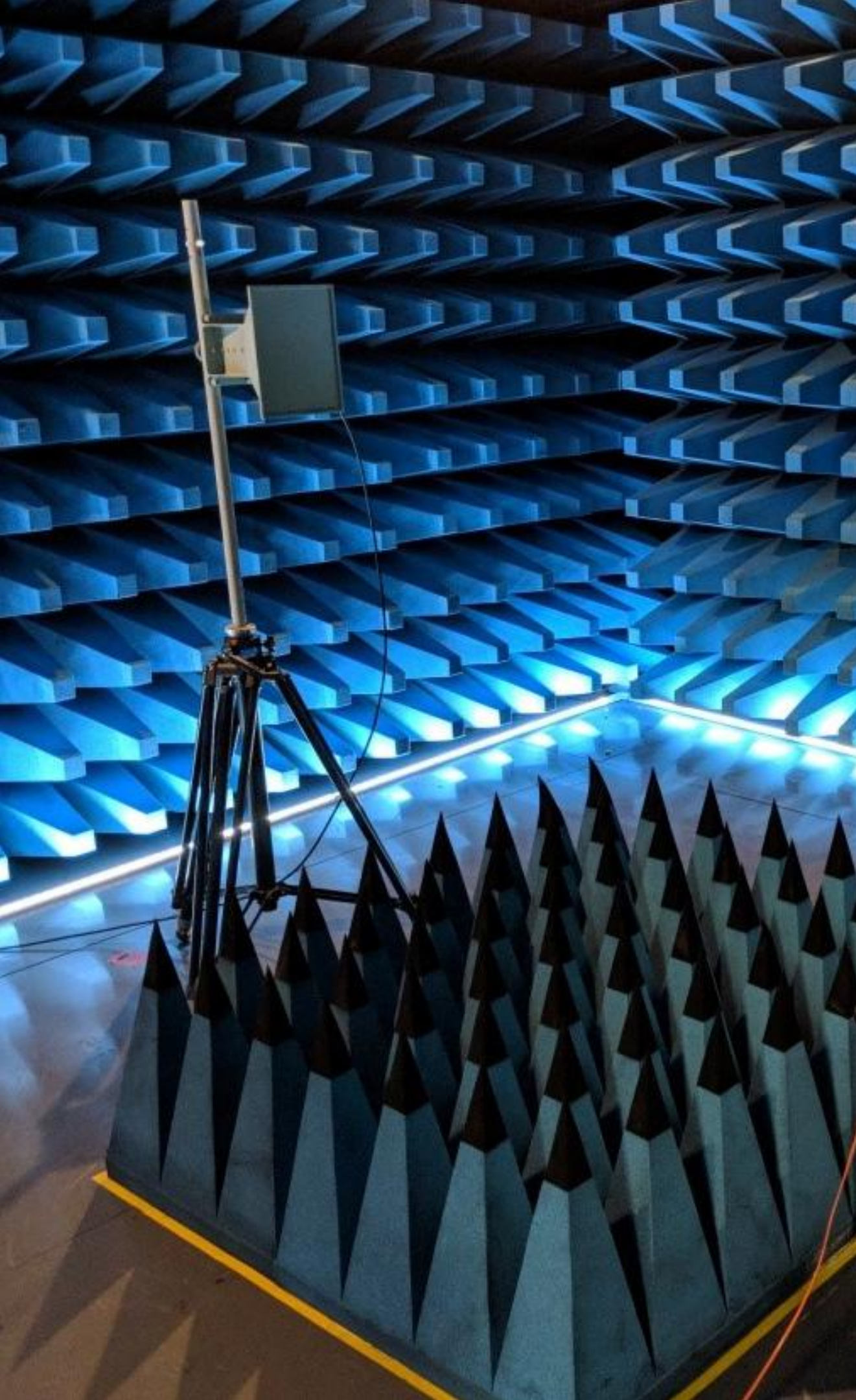
EMC TESTING

We have extensive, UKAS accredited (No.1833), EMC test facilities for worldwide market entry.

We offer a pre-compliance test service for initial fault finding, as well as full compliance testing in our multiple test chambers.

Our engineers work alongside you to offer advice, support and solutions.





EMC CAPABILITIES

Our EMC facilities include the below:

Semi-Anechoic chamber: Radiated E-Field up to 26GHz, Radiated H-Field up to 30MHz. Equipment weight up to 1 tonne

Fully Anechoic chamber: For radiated RF immunity up to 6GHz, equipment weight up to 500kgs

Conducted emissions up to 400 MHz

Stargate SG64: Antenna and wireless device testing

Electrostatic Discharge: up to 15kV

Surge Testing: up to 24kV

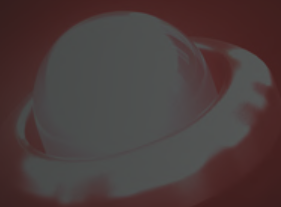
GTEM cell: For Radiated RF Immunity up to 6GHz and test level up to 100V/m



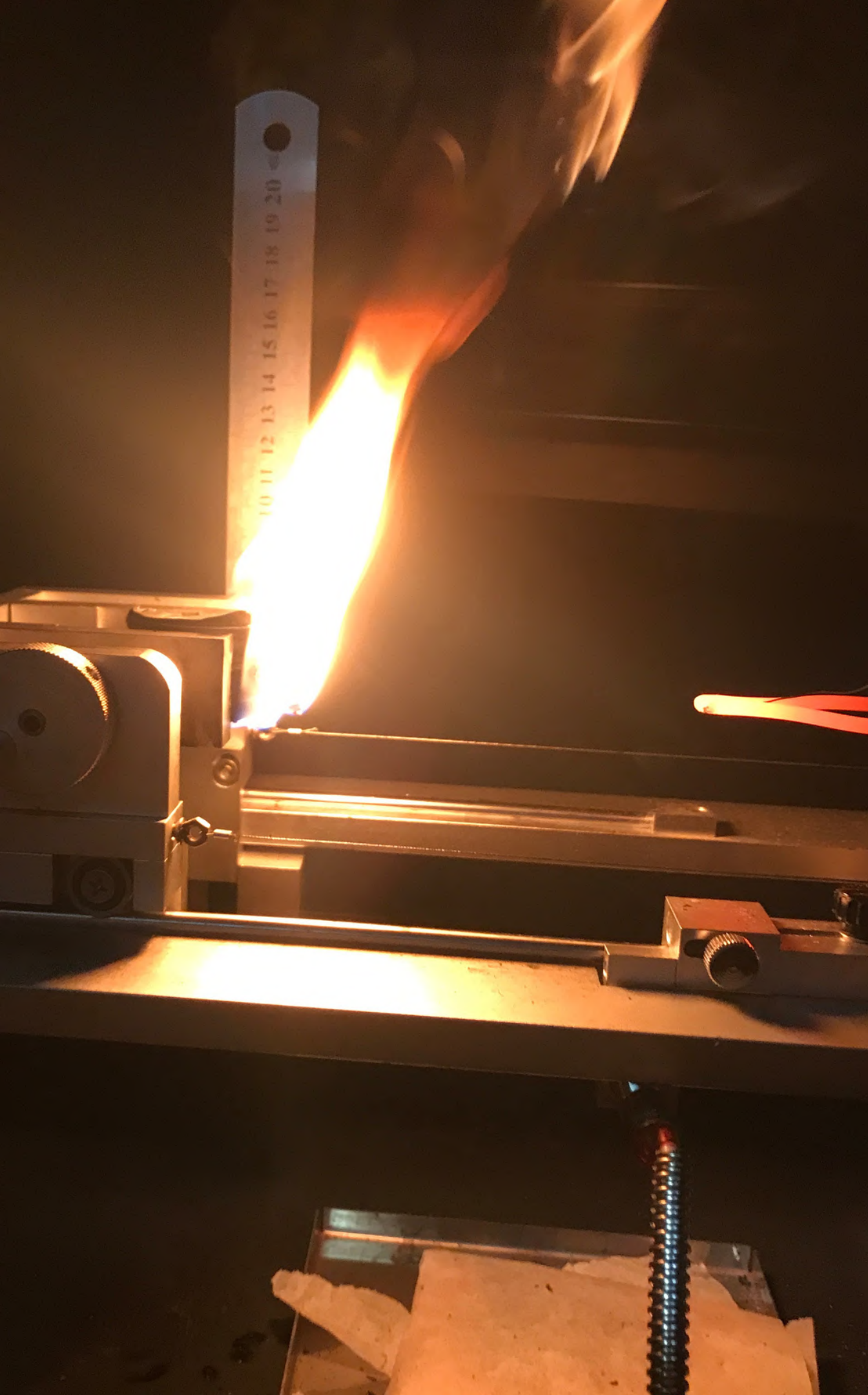
WARNING

A BRIEF OVERVIEW OF OUR CAPABILITIES

PRODUCT SAFETY TESTING



HIGH VOLTAGE



PRODUCT SAFETY TESTING

We are UKAS accredited (No.1833) to test your electrical product against specified standards relating to health and safety .

All of our services are in one location, meaning we can offer you a complete range of EMC, Safety and Environmental testing, without the need to use different test labs.



SAFETY TESTING

Our safety facilities include the below:

CTI & PTI: Comparative Tracking Index & Proof Tracking Index, up to 600V. Test methodology, for which we are UKAS accredited, is specified in IEC standard 60112

Drop Testing & Tumble Barrel: Drop testing height variance from 0.6m to 2m. Maximum sample weight 5kg. Tumble barrel maximum weight 5kg, 5-15 revolutions per minute

Flammability, Needle Flame & Glow Wire: used to evaluate if plastic materials are flame retardant, we test up to 1000°C

EMF Testing & Surveys: Electromagnetic Field testing is used to ensure people are not exposed to harmful fields. This forms part of the Health & Safety at Work Act

MECHANICAL TESTING

Stability and Mechanical Hazards

Mechanical Strength (push/pull force up to 500N)

Torsion (up to 50Nm)

Impact Resistance (0.1 to 2J)

Creepage and Clearance (0.5mm resolution)

Ball and Impact Hammer

Test Fingers and Probes

Core Flexing (Strain Relief)

Pull and Torque

Crushing and Abrasion

Resistance to Rust Corrosion

Endurance and Durability

Cord, Flexing (up to 270 degrees, up to 30 cycles per minute)

Fixture design and construction

Crush Resistance (compression force up to 200kN)

Resistance to adhesion, shearing and scratching (up to 1000grams)

ELECTRICAL TESTING

Overload and Short-circuit Protection
Abnormal Operation
Locked rotor (Motor appliances)
Speed (Traction drives)
Endurance and Durability
Protection against access to live parts
Stored Energy and Residual Voltage
Insulation Resistance and Coordination
Moisture Resistance
Component Application Analysis and Fault
Simulation
Voltage (up to 28kV AC RMS, up to 40kV DC)
Current: up to 1000A AC 50/60Hz
Resistance (0.1m Ω to 100M Ω)
Frequency (50/60/400Hz)

Energy (Wh) and Power (VA, W, VAr) with 0.01% accuracy
Harmonic Distortion (up to 2kHz)
Inrush Current Analysis (up to 500A)
Temperature rise (up to 600K)
Leakage current (0.01 μ A to 50mA true RMS, 15Hz to 1MHz)
Touch Current and Protective Conductor Current
Electric strength (up to 5kV AC 50/60Hz, up to 6kV DC) at operating temperature
Earth Bond and Continuity (0.5m Ω up to 40A at 50/60Hz)
Transient Overvoltage and Impulse Voltage (up to 24kV)

The image shows the interior of a large, grey environmental testing chamber. The chamber's lid is open, revealing a black metal grate floor. On the grate, there are several components: a bright red, cylindrical light fixture in the center, two white sensor probes with black cylindrical bases, and two small, silver, funnel-shaped containers. The background shows the interior walls of the chamber, which are smooth and grey. The lighting is bright, highlighting the various parts of the test chamber.

A BRIEF OVERVIEW OF OUR CAPABILITIES

ENVIRONMENTAL TESTING



ENVIRONMENTAL TESTING

Our environmental testing facilities allow us to replicate extreme conditions that your product may be exposed to during field use.

The environmental facilities at Cranage cover a wide range of conditions, such as extreme temperature fluctuations, water ingress and the impact of solar radiation.

We are UKAS accredited for part of our environmental facilities.



ENVIRONMENTAL TESTING

Our environmental facilities include the below:

Water, Dust & Solid Object Ingress Protection: We are UKAS accredited for EN 60529, which covers IP1X-IP6X dust and solid objects, and IPX1-IPX8 water ingress

Salt Spray: Testing to standard IEC/EN 60068-2-52 where we measure the corrosion of metals, plastics, paints and surface coatings to saline solution

Temperature & Humidity: Temperature range -70c to +1300c

Humidity range 20% to 98%

Solar Radiation: 280nm to 3000nm

Shock & Vibration: Shock up to 500m/s²

Vibration 5Hz to 2kHz

CONTACT US

FOR QUESTIONS, QUOTES,
AND MORE INFO

CRANAGE

EMC & SAFETY

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