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FREQUENTLY ASKED SOLUTIONS

EMC&OPTICS ELECTROMAGNETIC COMPATIBILITY | RF-ENGINEERING LASER, LED & LAMP SAFETY

EMC & OPTICS



OUR ACCREDITATIONS

Our EMC & Optics business unit brings together three accredited laboratories (Electromagnetic Compatibility, RF-Engineering and Laser, LED & Lamp Safety) in the field of non-ionizing radiation for a truly comprehensive range of services (accredited testing house No. 312 and accredited calibration laboratory No. 612 according to EN ISO/IEC 17025). Our research projects and collaboration with international standardization organizations keep us at the cutting edge of knowledge in our field and directly benefit our customers.

ELECTROMAGNETIC COMPATIBILITY

In our accredited testing laboratory we perform EMC measurements up to 40 GHz. We are ready to handle all EMC issues for electric and electronic equipment. These essential services are particularly important for safety-critical systems. Our team supports during every phase of EMC-compliant product development, from the design process to successful completion of CE conformity testing according to EU directives. Our customers receive expert support for interference suppression and hardening of your products and if EMC-related issues appear during research and development projects. We are equipped with two anechoic chambers, a shielded high-frequency laboratory and an open-area test site. Of course, we also have modern EMC and radio measurement instruments, some of which were developed in-house.

IMPACT OF ELECTROMAGNETIC FIELDS

We are conducting research on human exposure to electromagnetic fields. In order to prevent adverse health effects, body currents and power absorption must be limited. A detailed tissue specific analysis of induced body currents and power absorption requires complex measurement methods as well as highly sophisticated hard- and software facilities for numerical computer simulations.

European Union directive 2013/35/EU specifies minimum health and safety requirements for protecting employees from the hazards of physical agents (electromagnetic fields). We advise authorities, industry, and businesses through scientific investigations, measurements and completion of expert opinions on exposure of workers and the general public.

DEVELOPMENT OF INSTRUMENTS

Our scientific knowledge gives us an excellent foundation for developing test instruments. We develop special-purpose antennas and measurement instruments characterized by extremely high precision. RefRad X, POD Antennas, Precision Reference Dipoles, CalStan are sold throughout the world.

RADIO-FREQUENCY TECHNOLOGY

Our radio-frequency laboratory is accredited for the calibration of antennas and field probes. We are also able to validate measurement chambers and EMC measurement equipment. Our team has an international market presence with a focus on Europe and Asia. We serve manufacturers of EMC test instruments, operators of EMC testing facilities, research centers, universities, and companies that measure electromagnetic fields generated by mobile communication base stations. We are recognized internationally for our many years of research experience. For example, our research results were adopted into international standards like the CISPR 16 series.

LASER, LED & LAMP SAFETY

Our accredited laser, LED and lamp safety testing laboratory provides complete service for lasers and optical broadband emitters in the ultraviolet, visible and infrared wavelength range. Laser, LED and lamp products are tested and classified according to international standards, which our team helped to develop. Additionally to product testing, our background in bioeffects research provides the basis for internationally acclaimed consulting and risk analysis services on potential eye or skin injury. We also prepare expert opinions for official approvals of production sites and other purposes. This applies to industrial laser systems as well as medical laser applications, solar simulators, tanning beds and infrared cabins.

SUPPORT AND CONSULTATION

By supporting manufacturers and users during product development, we save them the expense of purchasing measurement instruments and the time associated with studying safety standards. We ensure that your final product complies with all relevant regulations.

OUR TEAM

Our team's performance is founded upon many years of experience. Our activities in accredited test centers and as researchers, developers, and contributors to international standards committees are highly complementary and allow us to offer a unique range of services. As a result, our customers benefit from staying on the cutting edge of technology.

INFOS

For more information, please visit our website: http://www.seibersdorf-laboratories.at

OUR SERVICES

Electromagnetic compatibility

- EMC consulting and EMC analysis of systems
- CE compliance testing
- Automotive EMC and MIL testing
- Radiotechnical measurements
- · Susceptibility investigations of electronic implants
- · Projects on human exposure to electromagnetic fields
- · Assessment of power absorption in tissues
- Exposure assessments (e.g. expert opinions on exposure of workers)
- Annual EMC technical conference
- EMC training and customer tailored seminars

Radio-Frequency technology

- Calibration of antennas and field probes
- · Calibration of current probes, coupling networks and cables
- Validation of EMC test site performance and EMC measurement equipment
- Development of special-purpose antennas and probes

Laser, LED & Lamp Safety

- Test center for LEDs and lamps (UV, visible, IR) according to IEC 62471
- Classification of laser products according to IEC 60825-1
- CB Testing Laboratory/IECEE for IEC 60825-1 and IEC 62471
- Testing of solar simulators according to ISO, FDA and Cosmetics Europe Standards
- Testing of ophthalmic instruments (ISO 15004-2, ANSI Z80.36)
- Bioeffects expert opinion/risk analysis regarding eye or skin injury
- · Product-safety consulting during product development
- Testing of infrared cabins and tanning beds
- Courses for laser safety officers



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