

In his role as the Principal EMC Engineer, Mr. Hodes is responsible for:

- being up-to-date on the status and scope of all current and pending significant EMC Standards issued by the US FCC, Industry Canada, Japan's VCCI, the US FDA, ANSI, IEEE, TIA/EIA, IEC, ISO, and, all of the European Union (CE Mark) EMC EuroNorms issued by CISPR, CENELEC, and ETSI;
- providing formal Seminars (to USA and Overseas Clients) in the following areas: a) on the current and future worldwide EMC regulatory and technical requirements that apply to their specific product lines, b) on the specific practices and procedures that are required to correctly perform a variety of EMC Test Methods, c) on EMC Laboratory Operations topics such as the practical computation of Measurement Uncertainties in EMC Tests, and the practical requirements that need to be met to demonstrate Calibration Traceability
- negotiating and coordinating the technical scope of EU EMC Directive Technical Construction File [TCF] testing on large industrial machines and other specialized devices and reviewing and approving "Competent Body Certificates" and Test Reports under Article 10.2 of the EMC Directive;
- analyzing and reviewing the technical scope of radio testing being performed by Acme Testing Co. under the EU EMC Directive and the EU RTTE Directive and EU National Requirements (i.e. both EC Type Examination and various National Type Approvals)
- negotiating and reviewing the Technical Statements of Work for EMC Tests on both USA and EU Class 2 and Class 3 Medical Devices;
- providing "in-house" Technical Training (both in seminar format and in "OJT" format) to the EMC Test Technicians and EMC Test Engineers whenever a significant change to a Basic EMC Test Standard has occurred.
- serving as a "technical umpire" between Clients and Acme Testing Co. Staff (to resolve disputed interpretations of Specifications and to answer complex Test Method questions);
- serving as an EMC Test Engineer whenever Acme Testing Co. receives a contract to perform unusual, highly complex or potentially dangerous EMC Tests, and in those instances where a Senior or Principal EMC Engineer is required to supervise or perform in-field EMC Tests.
- performing requirements analysis on all newly acquired EMC Specifications and Standards to determine if Acme Testing Co.'s existing instrumentation and facilities resources are adequate to perform the required tests to the required levels or limits.
- defining the specifications and the capital facilities and capital equipment costs for all new facilities and new instrumentation to be acquired by Acme Testing Co.
- coordinating with all national approving authorities (e.g. FCC, VCCI, various Competent Bodies, etc.) on Facility Audits, Facility/Site Accreditation and/or Registration Package Filings.

Mr. Hodes has 23 years of EMC-related technical and managerial expertise in the areas of:

- a) Regulatory and Technical EMC Requirements Analysis; EMC-related Specification Writing and Review; Design Practices to achieve least-cost EMC Compliance; EMC-related Product Homologation vs. Harmonization design tradeoff analysis; EMC Compliance Test Planning and Test Cost Analysis and Testing; and, preparation and submittal and post-submittal coordination of EMC-related Regulatory Filings; and,
- b) Providing Systems Engineering / Technical Assistance [SE/TA] Support and technical line management services in the following areas of commercial, industrial, and medical device EMC testing and EMC problem mitigation engineering: satellite earth stations; large-scale networked real-time computer and instrumentation systems; low and medium bandwidth LANs and wireless telecom equipment; life-critical patient-connected medical devices (including cardiac catheterization systems, critical-care ventilators, neurosurgical navigation systems, implantable insulin pumps, and laser scalpels); complex, high-accuracy 3-dimensional marine navigation and positioning systems; commercial aircraft and spacecraft avionics systems, and, SEMI S2- EMC Test Planning and Testing of heavy industrial machines used in the fabrication of Integrated Circuits] and Printed Circuit Boards.
- c) Providing Technical Management Support Services on a global basis to client firms in the areas of: performing Accreditation Audits of EMC Laboratories in the USA, Japan, and Taiwan; Preparation and presentation of technical and managerial Training Courses and Seminars on a variety of topics including EMC Design Practices, USA & EU Wireless Telecom EMC Requirements, and EMC Test Methods; and,
- d) Designing, constructing, calibrating, and operating a wide range of Electromagnetic Test Facilities [EMTFs], including: EMC Laboratories (complete with Open Area Test Sites, RF Anechoic Chambers, GTEM Cells, Conducted Emissions and Pulse Immunity Testing Ground Planes, RF Shielded Enclosures, and all required support facilities, and all required EMC Test Instrumentation and Software); Near-Field and Far-Field Antenna Pattern Measurement Ranges; Electromagnetic Pulse [EMP] Test Facilities; Whole-Aircraft and whole Land-Vehicle sized RF Anechoic Chambers and instrumentation (for Systems-Level Interoperability and Immunity EMC Testing), and, "NRL Arch" ranges for the measurement of the electromagnetic properties of materials.

During the early and middle stages of his engineering career, Mr. Hodes was responsible for: a) the development of an efficient graphics-based software package to accurately predict the coupling-loss between antennas on an aircraft; b) the design and construction of a series of highly successful research-type environmental monitoring instrumentation radars (including ground-based meteorological Doppler radars and ground-based radio-acoustic sounding systems for wind and temperature profiling); b) for the design and flight testing of a series of ultra-high resolution Inverse Synthetic Aperture Radar [ISAR] systems; and c) for the algorithm design and flight testing of a variety of Synthetic Aperture Radar [SAR]-based ultra-high resolution non-cooperative target identification Modes within the AN/APQ-76 Multi-Mode Radar System [MMRS].

Mr. Hodes was awarded a US Air Force Scholarship and earned a B.S. Degree [with Honors] in Applied Physics/Meteorology from Rutgers University (New Brunswick New Jersey) in 1976. In 1981 and 1982, he did Graduate work in Computers and Instrumentation Systems (M.S. Electrical Engineering Program) at Johns Hopkins University, Baltimore Maryland. From 1982 to 1986, he pursued the Masters in Engineering Administration [M.E.A.] Degree at George Washington University in Washington DC.

Mr. Hodes is a decorated veteran of the US Air Force, and is a Member of the following Professional Societies:

Institute of Electrical and Electronics Engineers [IEEE]:
(IEEE EMC Society, IEEE Antennas and Propagation Society, IEEE Systems Engineering Society, IEEE Engineering Management Society);
Society of American Military Engineers [SAME];
American Meteorological Society [AMS];
Canadian Meteorological And Oceanographic Society [CMOS].