



RF Systems Training

Retronix provides customized training to your Technicians. In addition to Retronix basic training outline and overview manuals, All Training will utilize Customer manuals and procedures to ensure that the technicians will learn the fundamentals of the topics and the associated documentation that they have at their disposal. This is a tried-and-true method that builds a basic fundamental knowledge for the technicians to build upon as their skills and experience grow. The goal is to train Your Technicians to follow *Your Procedures and BKM's*.

■ Introduction to RF Energy

This module gives the technician background on radio frequency engineering and its origins. We cover Electromagnetic radiation, RF power calculations, Non semiconductor applications, Why use RF in semiconductor applications, and cover DC Bias Fundamentals.

■ RF Safety

We educate the technician on all aspects of RF safety. It is important to ensure that they are fully aware of the dangers and energies at play. This module covers: RF safety procedures, Electrical shock and burns, Biological Tissue Damage, High temperature equipment, UV radiation, strain (from heavy equipment), and General safety procedures.

■ RF Systems

This module covers the different components of the RF transmission line, from the RF generator, RF amplifier, matching network, RF cable, Electrodes and power measurement devices. The Technician gains an overview of the system they are working on and some deeper knowledge of the system design, for example' the need for the correct length of RF cable. This is practical training covering RF transmission lines, RF generators, Matching networks, Electrodes, and power measurement.

■ RF Generators

The technician gains an understanding of the operation of a typical RF generator. It includes a description of why we test for some of the required operational parameters on an RF generator. This allows for quick fault finding, using this learned skills. This section includes a general description of a RF generator system, How to interpret the unit specifications from the user manual, A block diagram of the general operation of the generator, including a description of the sub-sections, Power generation and dissipation, Transmission line losses, and Filtering and power measurement, including harmonic measurement and modulation .

■ RF Matching Networks

Fundamental Understanding of RF matching Networks is key to a well rounded understanding of RF systems. We cover the moving part section of the transmission lines which are usually the most problematic section of the RF system. Not every Technician knows why they use a matching network or the issues that arise. This Module teaches the purpose of the matching network using a block diagram, The phase / magnitude detector, Control PCB, voltage and DC bias probe, Matching components, and different types of networks

■ RF Trouble Shooting

Effective Troubleshooting is key to a technician's success. We educate the technician on the fundamentals of troubleshooting RF systems and eliminate hours of "shot gunning." We cover power measurement, use of the field strength meter, how to Eliminate or implicate the RF generator, matching network, cabling, electrodes, and the RF chamber. We also cover EM interference issues.

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