



DIAGNOSIS AND TROUBLESHOOTING OF ELECTRONIC CIRCUIT BOARDS WITHOUT THE AID OF SCHEMATIC DIAGRAM

OBJECTIVE

At the end of the training, students will be able to:

- Understand and implement various methods of testing of electronic components without schematic
- Break down circuit in their different functions.
- Test each function by the analysis of components (discrete, IC ...).
- Analyze Electronic Signal of components by mean of oscilloscope and characteristic tester.
- Analyze key component signals using the oscilloscope and tester features.

TRAINING COURSE PARTICIPANTS

- Electronic Service Technicians, as well as Engineers interested in the operation, troubleshooting and repair of electronic equipment and printed circuit boards.
- Students in the following areas: Electronics, Electrical Engineering and telecommunication.

HANDS-ON TRAINING

- Reading of printed circuit boards (PCB)
- Repairing of industrial electronic PCB

MATERIEL:

DMM, Function Generator, Oscilloscopes, Components Testers, Screwdrivers and Pliers

CLASS AGENDA

Day 1:

8:00 am to 2:00 pm or 2:00 pm to 8:00 pm

FUNDAMENTALS OF ELECTRONICS:

- Components. (Discrete, analog principle of tests operation)
- Filters. (principle, rules, test)
- Power supplies

Day 2:

8:00 am to 2:00 pm or 2:00 pm to 8:00 pm

Components of integrated controls:

- Integrated Circuits Conversion: ADC / DAC.
- Multiplexer / De-multiplexer.
- Opto - electronics.

Day 3:

8:00 am to 2:00 pm or 2:00 pm to 8:00 pm

THE BASICS OF REPAIR:

- Troubleshooting methods.
- Schematic readings
- Overview of measurement devices

Day 4:

8:00 am to 2:00 pm or 2:00 pm to 8:00 pm

- Component signals. Test of truth tables
- Circuit measurements.
- Study of circuits.

Day 5:

8:00 am to 2:00 pm or 2:00 pm to 8:00 pm

- Introduction to the methodology of diagnosis and repair of electronic printed circuit boards (PCB).
- Lab repair of industrial electronic printed circuit boards.

NOTE:

Students may bring one good and/or one defective printed circuit board.

For registration: contact us at info@tandogtc.ca