

# RF Communications



## Communications Training That Speaks for Itself

From Marconi's first transmitted signal over the airwaves to the millions of mobile phone connections around the world today, Radio Frequency (RF) Communications has been a part of our lives for over 100 years. In Amateur Radio, Avionics, Telecommunications, Broadcasting, or Satellite Communications, a technician must possess a solid foundation in the skills and theory of RF Communications. Through comprehensive hands-on training in AM and FM receivers, AM transceivers, NBFM transceivers, and Single Side

Band transceivers, E & L-Nida RF Communications programmes provide the required skills & knowledge to succeed in those disciplines. The programmes are available as an addition to an existing Model 130E test console based curriculum or as a stand-alone programme using the E & L-Nida Model 205ECT communications trainer. When you're speaking of RF Communications training, you're speaking of E & L-Nida.



# RF Communications

The E & L-Nida RF Communications programmes are ideal preparatory programmes for entry into the wireless communications fields. The programmes teach the theory of operation, trouble-shooting, and repair of standard AM/FM broadcast band receivers and AM/SSB/NBFM communications transceivers. Students learn basic system composition, the RF spectrum, atmospheric effects on radio waves, the heterodyning process, modulation techniques, AF/RF and RF/AF conversions, phase-locked loop and manual tuning operations, AGC, crystal and voltage controlled oscillators, and antenna theory. They also improve their RF communications troubleshooting skills as they experiment on automatically faulted RF communications equipment.

## Supporting Courseware

### Recommended Pre-requisites

Mathematics  
DC, AC, Analogue, & Digital Circuits

### 130E RF Communications Programme

#### Introduction to Communications

Systems and Terminology

#### Theory, Operation, and Troubleshooting of:

AM Receivers

FM Receivers

AM Transceivers

Narrow Band FM

Single Side Band

#### Communications Troubleshooting

Assessment, Isolation, & Identification

### 205ECT RF Communications Programme

#### General Communications Theory

Power Supplies, Phase-Locked Loop, Amplifiers

#### AM Broadcast Receivers

Heterodyne & Detector Operation

Signal Rejection, Receiver Alignment

#### FM Receivers

Theory, FM Stereo Receiver Operations

Receiver Performance Testing

#### AM Communications

Receiver Theory, Operation & Alignment

Transmitter Theory, Operation & Alignment

#### Single Side Band Transceivers

Theory, Operation & Alignment

#### Narrow Band FM

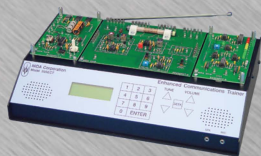
Theory, Operation & Alignment

#### Radio Equipment Troubleshooting

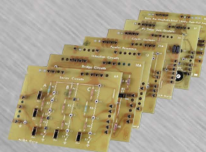
## Supporting Hardware



Model 130E  
Test Console



Model 250ECT  
Comm. Trainer



Model 4444 RF  
Comm. Card Set



Model 4050  
Test Instrument Module

## Contact

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