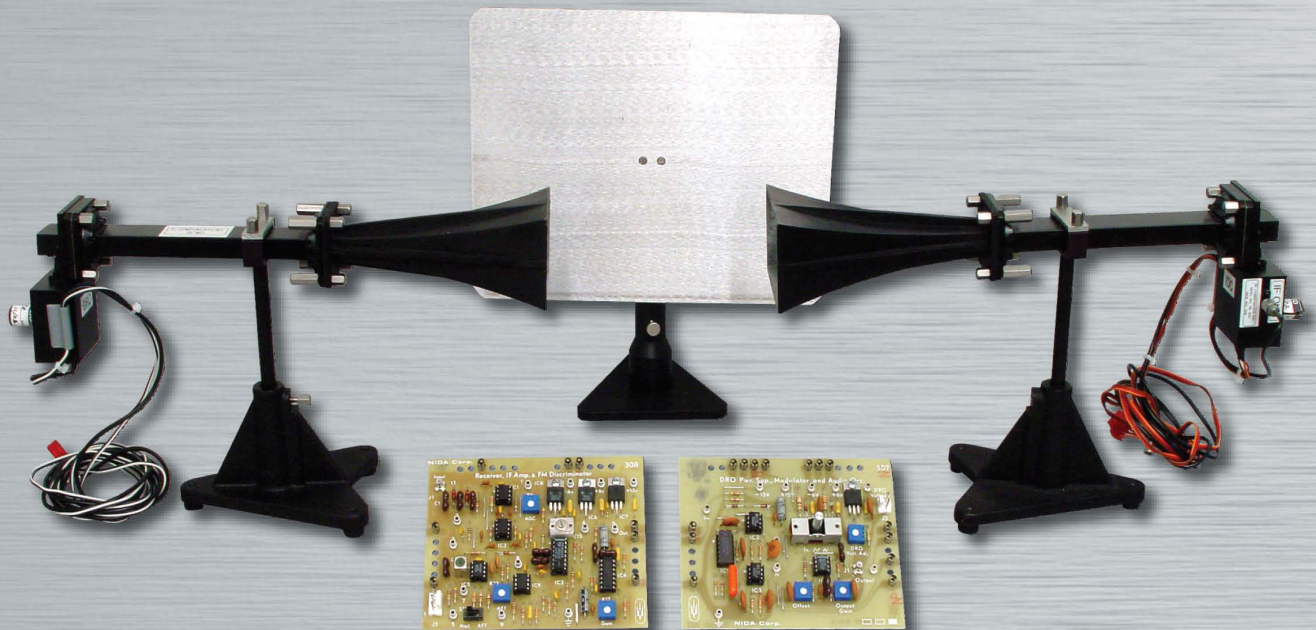


# Microwave Training System



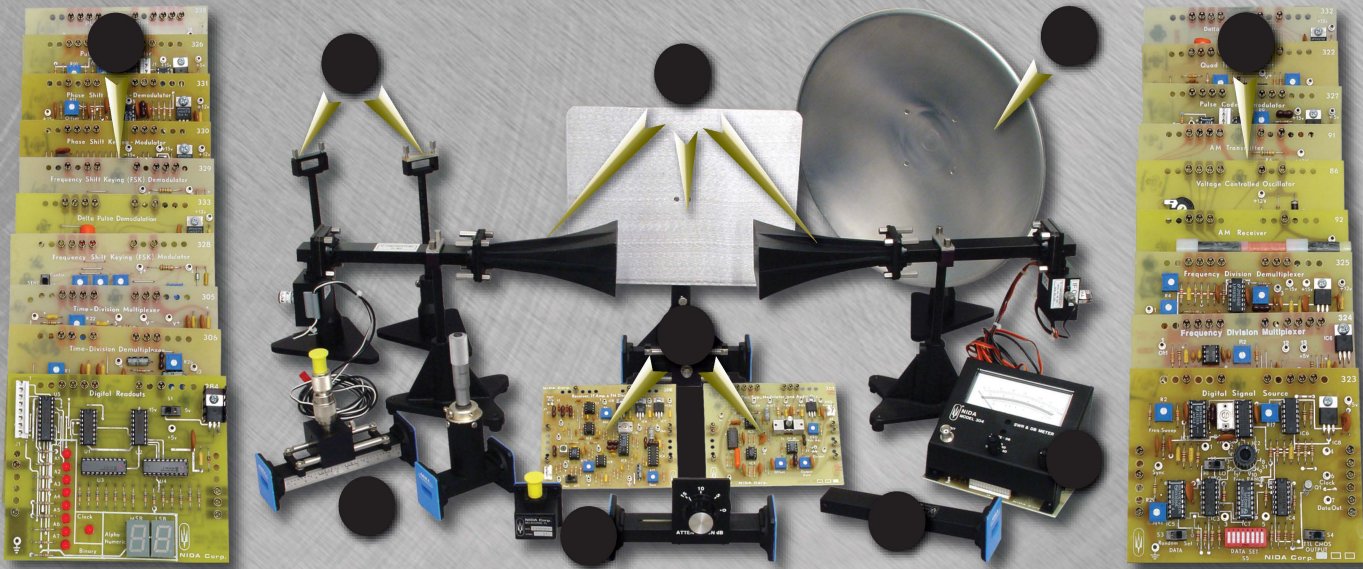
## Model 3300 Series

Reliable communications equipment is paramount to providing vital links between distant individuals, companies, and nations. Today's worldwide communications depend on a complex network of microwave systems maintained by telecommunications technicians. The E & L-Nida Model 3300 Series Microwave Training Systems are designed to teach technicians microwave system operation, maintenance, and troubleshooting. The Model 3300 Series includes basic microwave systems, microwave communications, microwave standing wave ratio measurement, and microwave reflections. Designed original for military training

applications, the Model 3300 Series utilises E & L-Nida CAI courseware to teach the many concepts and principles of microwave technology. It incorporates the Model 130E trainers to reinforce the theory through comprehensive experimentation, observation, and troubleshooting. The Model 3300 Series Microwave Training System is not a simulation; it is actual microwave equipment capable of transmitting and receiving signals in voice, data, or video across the room or across the campus. The Model 3300 Series Microwave Training System: reliable training for ensuring reliable communications.



# E & L-Nida Model 3300 Series



E & L-Nida

Hardware Series

## Features

**1. Model 3301 Basic Microwave Training System -** Includes transmit and receive cards, DRO, IDC, Wave guides, horns, and stands.

**2. Model 3302 Microwave Communications Option -** Provides circuit cards and associated hardware for Audio Interface, TDM, FDM, Quad Tone Generation, PCM, FSK, PSK, and Digital signal Source microwave experiments.

**3. Model 3303 Standing Wave Ratio Measurement Option-** Includes Microwave RMS and DB meter, wavemeter, tuner, crystal detector, cross guide coupler, slotted line probe, termination unit, directional coupler, shorting plate, and all associated hardware.

**4. Model 3304 Microwave Reflections Option -** Provides additional wave guides, azimuth mount antenna, 90 degree twist, polarisation grating (not shown), and parabolic reflector (shown).

## Specifications

### Dielectric Resonant Oscillator (DRO)

Output Frequency - 10.5 GHz  
Mechanical Tuning - 100 MHz Min  
Output Power - 10 dB Min  
Frequency Stability - 10 ppm/c Max  
Frequency Deviation - 10 MHz Min  
Control Voltage - 0 to 10 VDC (25 Max)  
RF Connector - UG39/U  
Control Connector - Filter Feed-Thru  
Power Supply - +12 VDC

### Integrated Down Converter (IDC)

RF Input Frequency - 10.5 GHz  
Max RF Power - +20 dBm  
Conversion Loss - 8 dBm Max  
Noise Figure - 9 dBm Max  
Mechanical Tuning - 100 MHz Min  
Frequency Deviation - 10 MHz Min  
Frequency Stability - 10 ppm/c Max  
Power Supply - +12 VDC

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