



Radar is an object-detection system that uses radio waves to determine the range, angle or velocity of objects. The RADAR Trainer (MI-AC20) is a training system, specially designed for educational purposes, operates without any hazardous high-frequency radiation. The principle of a radar system is explained using authentic measurements. It is a very useful trainer for student, they can study signals on Oscilloscope, Measure speed of Object, Vibration and RPM of any fan. It is also very useful to study of properties Materials.

Features

- Easy to use.
- Object Counter provided on trainer real time fan RPM measurements and vibrations measurements with the help of tuning forks
- Complete Hardware and Software setup to demonstrate Radar concepts
- LED indication for Doppler Echo signal
- Tripod stand provided for height level matching
- On board alarm for detected signals
- All important test points are brought out in front panel with 2mm banana sockets.

Scope of Learning

- Study of principle of Doppler Radar and their working.
- Measurement of Velocity of the object moving in the Radar range.
- Study of an Alarm System using a Radar.
- Study of Object Counting with the help of Radar.
- Study of the detection of vibration of different Tuning Forks.
- Determination of the RPM (Rotation Per Minute) of a moving object (Fan).
- Study of the effect of different types of materials on Radar.

Technical Specifications

Transmitter Frequency	:	10 GHz.
Output Power	:	10mW (approximate).
Operating Voltage	:	8.6V. approx.
IF Output	:	Audio range.
Antenna	:	Horn Type, 16dB Gain.
Sensitivity	:	-50 to -70dBm.
Alarm	:	On - board detected signal indication.
Display Type	:	16x2 LCD.
Counts	:	Doppler Frequency RPM Measurement.
About Software Oscilloscope	:	
Display	:	Voltage(Amplitude)
		Frequency
Measurement	:	Doppler Frequency
		Velocity
		RPM
Save function		
Line Input Voltage	:	230 V AC \pm 10%, 50 Hz

Package Contents

• Trainer Board	-	1no.
• Audio cable for PC line in input	-	1no.
• DIN Connector Cable (5 pins)	-	1no.
• Mains cord	-	1no.
• Tripod stand	-	1no.
• Fan Stand	-	1no.
• Fan	-	1no.
• Sliding platform	-	1no.
• Different objects	-	3nos.
• Horn Antenna	-	1no.
• Trans Receiver Unit	-	1no.
• Pendulum	-	1no.
• Stand for moving the pendulum	-	1no.
• Tuning forks	-	3nos.
• Software CD	-	1no.
• Operation manual	-	1no.

Mine Instruments Pvt. Ltd. An ISO 9001:2015 Certified Company

67-B, First Floor, Electronic Complex, Pardeshipura, Indore-452010 (M.P.) India
 e-mail: info@mineinstruments.in, mineinstruments@gmail.com,
 More information: www.mineinstruments.in | www.mineindia.biz,
 Tele Fax: +91-731-4246503, +91-6262603222

Regional Contacts-

East : +91-6262608000
 North: +91-6262605000
 South: +91-6262601000
 West : +91-6262609000

Emails-

kolkata@mineinstruments.in
 north@mineinstruments.in
 south@mineinstruments.in
 west@mineinstruments.in

