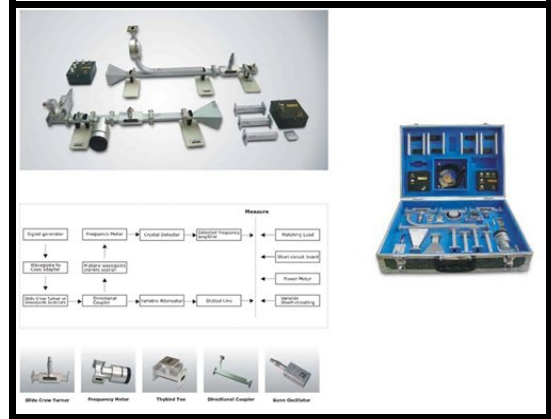


Dinesh Micro Waves & Electronics

MICROWAVE TRAINING KITS

Dinesh Microwaves and Electronics manufacturers of three centimeter waveguide training system to provide users an in depth training on microwave waveguide device. The training kit can be used in understanding the transmission characteristics of the frequency and all round understanding of the way in the use of universal frequency band width in the X series. This experimental demonstration of frequency can be done in most simple method using this kit. Microwave radio communication network is very important in our daily life. High quality long distance calls, some times through satellite, radio communication system can be used. A special performance of the microwave system is based on the high frequency microwave propagation direction: the features is very similar to light. In additions the immune function which reduces the high intensity microwave frequency noise is an important aspect of microwave communication durin long distance transmission.

Centimeters waveguide training system is a very effective learning tool. The specialist of the following wavguide transmission is providing a wide variety of funtional demonstration experiment and also related to the applications of spectrum, horn antenna transmitting and receiving. The modular structure pratical experiments is in very simple and flexible installation component, which can be incorporated in an equipment box and easy to carry and transport.



PARTS SPECIFICATIONS

1. Gunn oscillator : 9-11Ghz, P = 15Mw
2. Slide crew tuner : coefficient of adjustable voltage standing wave:20~1.06
3. Slotted line : range of working freequency 8.2Ghz ~ 12.4Ghz
Coefficient of VSWR :<1.05, depth if probe into waveguide :3mm
Moving distance of probe:40mm
4. Pin modulator : square wave(pulse)
5. Crystal detector : range of freequency 8.2ghz ~ 12.4ghz
Coefficient adjustable voltage standing wave:<1.05
6. Freequency meter : freequency range 8.2ghz ~ 12.4ghz
Error=0.3%(9.5,10,10.5,11 four points)
7. Variable attenuator : freequency range is 8.2ghz to 12.4 ghz attenuation ranger
0~2 db
Measurement accuracy + 4db VSWR Coefficient – 1.25
8. Fixed attenuator : 20db+ 5db S<1.15
9. Terminator : coefficient of standing wave :=1.05
10. Wave to coax adapter : coefficient of standing wave :=1.05
11. Waveguide 2 EA : 10.16*22.86*100mm BJ100
12. Metal stand 8 pcs : fixed hieght:63mm
13. Power supply : 12volts
14. Hybrid tee : S<2
15. Directional coupler centre freequency coupling:10db+2db directional=20db
VSWR coefficient:main, auxilary line <1.25
16. Horn antenna : gain:>14db; VSWR:<1.30
17. 1KHZ Square generator : 1K+5%
18. Wave guide crankle section : 90*, VSWR <1.15

Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram

Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

Mobile: +(91)-9952444222

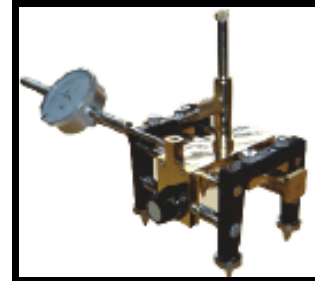
Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

LIST OF EXPERIMENTS

1. Measurement of dielectric constant of solid
2. Measurement of dielectric constant of liquid
3. Measurement of Phase Shifter

CONTENTS OF KIT

- 1 Klystron Power Supply 1
- 2 VSWR meter 1
- 3 Klystron Mount 1
- 4 Klystron Tube 2k 25 or equivalent 1
- 5 Isolator 1
- 6 Variable Attenuator 1
- 7 Slotted Line 1
- 8 Tunable Probe 1
- 9 Matched Termination 1
- 10 Detector Mount 1
- 11 Solid Dielectric Cell 1
- 12 Liquid Dielectric Cell 1
- 13 EH Tuner 1
- 14 Sliding Termination 1
- 15 Fixed Short / Reflector 1
- 16 Waveguide Stand 3
- 17 Hardware Fixing 1set
- 18 BNC Cables and Manuals 3



Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram

Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

Mobile: +(91)-9952444222

Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

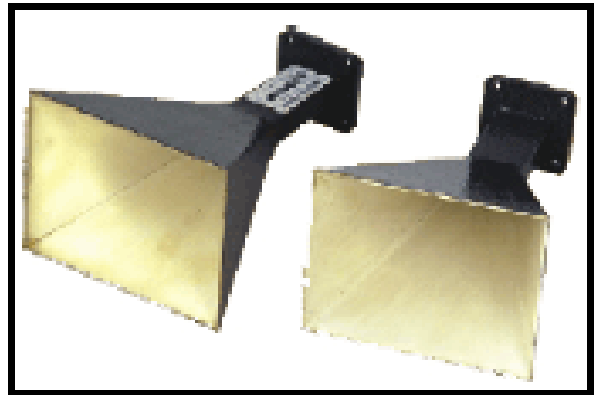
MICROWAVE LAB KIT

LIST OF EXPERIMENTS

1. Measure of gain of Antenna
2. Plot Radiation pattern

CONTENTS OF KIT

- 1 Klystron power Supply 1
- 2 VSWR meter 1
- 3 Klystron Mount with 2k 25 Tube 1
- 4 Isolator 1
- 5 Variable Attenuator 1
- 6 Horn Antenna 2
- 7 Parabolic Reflector 1
- 8 Detector mount 1
- 9 Sectorial Antenna E/H 1
- 10 Slotted Antenna 1
- 11 Radiation Pattern Turn Table 1 set
- 12 Hardware Fixing 1 set
- 13 BNC Cables 13
- 14 Experiment Manual 1
- 15 Waveguide Stand 2 No.



Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram
Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

Mobile: +(91)-9952444222

Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

Specification : VSWR Meter

1000 Hz adjustment approx. 10%.

Bandwidth : 20Hz or 100 Hz

Sensitivity 0.2v for full scale deflection at maximum

Noise At least 6 db below full scale at maximum terminated in 100/500 ohm

Input : Unbiased, optimised crystals with a source impedance 2-10 kohm

Input Connector : BNC female

Range : 70 db in 6 steps of 1 db & 10 db

: Variable by at least 10dB by coarse control approx 0.5 db by fine control

Adjustment 0.1 % db/10 step max. cumulative error between any two 10 dB steps

Accuracy Calibrated for square law detectors

1-4/3.2-10 . (NORMAL)

1-1.3 (EXPANDED)

Meter Scale : DB 0-10 (NORMAL)

0-0.25 (EXPANDED)

Temperature Range : 0-50 deg. C

Power : 200-260 v 50 Hzs



Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram

Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

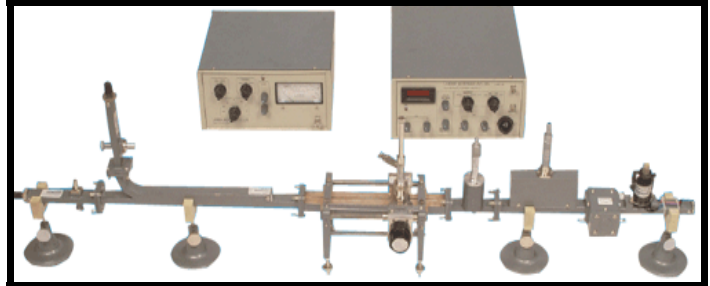
Mobile: +(91)-9952444222

Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

MICROWAVE TEST BENCHES & KITS KLYSTRON SOURCE TEST BENCH KIT (Available at S/C/X band)

KIT CONSISTS OF FOLLOWING COMPONENTS

- 1 Klystron Tube 1Nos.
- 2 Klystron Mount 1Nos.
- 3 Isolator 1Nos.
- 4 Slotted Line 1Nos.
- 5 Tunable Probe 1Nos.
- 6 Detector Mount 1Nos.
- 7 Variable Attenuator 1Nos.
- 8 Directional Coupler 1Nos.
- 9 Magic tee 1Nos.
- 10 SS tuner 1Nos.
- 11 EH tuner 1Nos.
- 12 Horn parabolic 2Nos.
- 13 Reflector plate 1Nos.
- 14 Frequency meter direct reading 1Nos.
- 15 Movable short 1 Nos.
- 16 Matched termination 2Nos.



ACCESSORIES AND INSTRUMENTS SUPPLIED IN KIT

1. Klystron Power Supply Digital Display
2. VSWR meter
3. Waveguide Stand ---- 1 set
4. BNC Cables ---- 3nos
5. S/S Hardware ---- 1 set

DOCUMENTATION: Operating & Service Manual on
Experiments

Dinesh Micro Waves & Electronics
No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram
Coimbatore - 641 012, Tamil Nadu, India
Phone: +(91)-(422)-4371112 / 2694313
Fax: +(91)-(422)-2694313
Mobile: +(91)-9952444222
Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

GUNN SOURCE MICROWAVE TEST BENCH KIT

KIT CONSISTS OF FOLLOWING COMPONENTS

- 1 Gunn Oscillator 1
- 2 Pin Modulator 1
- 3 Isolator 1
- 4 Slotted Line 1
- 5 Directional Coupler 1
- 6 Magic Tee 1
- 7 S S tuner 1
- 8 EH Tuner 1
- 9 Tunable Probe 1
- 10 Detector Mount 1
- 11 Variable Attenuator 1
- 12 Horn Pyramidal 2 Nos
- 13 Fixed Attenuator 1
- 14 W/G Stands 3 Nos.
- 15 Frequency meter 1
- 16 Reflector Sliding Termination 1
- 17 Movable Short 1
- 18 Matched Termination 2 Nos



ACCESSORIES AND INSTRUMENTS SUPPLIED IN KIT

1. Gunn Power Supply Digital Display
2. VSWR meter
3. BNC Cables 3 nos
4. SIS Hardware 1 set

DOCUMENTATION: Operating and service manual on experiments

Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram
Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

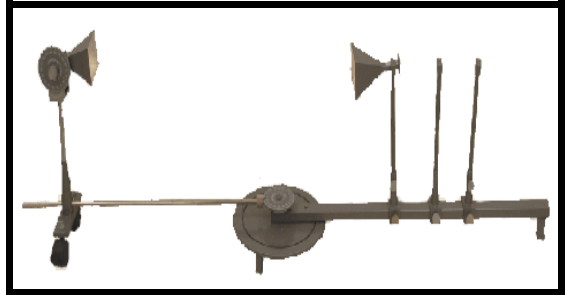
Mobile: +(91)-9952444222

Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in

RADIATION PATTERN MEASUREMENT SYSTEM

System Details:

System consists of one fixed arm for carrying transmitter, components and horn antenna and one rotatable arm for carrying a Horn antenna and detector to measure relative signal power. The moving arm can be rotated thru 270 deg in azimuth. Elevation adjustment is possible thru vertical adjustment by changing rotation of Horn antenna. Radiation Pattern can be plotted against azimuth position by relative signal power.



Azimuth angle can be measured on circular scale.

Optional : Control with Stepper Motor Antenna Positioner along with RS 232 C.

System Consists of :

1. Transmitter channel on fixed rail
2. Receiving Movable Channel
3. Vertical Rotating System
4. Azimuth Rotating System

Dinesh Micro Waves & Electronics

No. 347, (C4 & C5) SLI Complex, 7th Street, Gandhipuram

Coimbatore - 641 012, Tamil Nadu, India

Phone: +(91)-(422)-4371112 / 2694313

Fax: +(91)-(422)-2694313

Mobile: +(91)-9952444222

Email: dinesh.microwaves@hotmail.com , dinesh.microwaves@airtelmail.in
sathish.varadarajan@airtelmail.in