

**MICROWAVE TEST BENCH
KYLSTRON / GUNN BASED TRAINER
SET-UP NO. 3
OMEGA TYPE ES-503**



OMEGA TYPE ES-503 uses Klystron tube with its power supply and mount, as a microwave single source along with other standard high quality components and VSWR meter, enables to perform under mentioned experiments. The waveguide components are based on waveguide with plain flanges.

The set up is complete in all respect and requires only CRO. Practical experience on this set up carries great educative value for Science and Engineering Students.

OBJECT

- 01 Study of the characteristics of Klystron tube and to determine its electronic tuning range
- 02 To determine the frequency in a rectangular waveguide working on TE mode 10
- 03 To measure the polar pattern and the gain of following antennas
 - 3.1 Standard Gain Horn - Pick up horn
 - 3.2 Slotted Broad Wall - Slotted Narrow Wall
 - 3.3 Dielectric Antenna - E-plane Sectorial Horn
 - 3.4 HPlane Sectorial Horn - Pyramidal Horn - Parabolic Dish
- 04 To study the square law behaviour of a microwave crystal detector.
- 05 To study the variable attenuator

COMPONENTS:

The complete Experimental Set-up consists of the following items :

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|---|---|--------|
| 01 Co-axial to Wave Guide Adaptor----- | 2 | ES-555 |
| 02 Cooling Fan ----- | 1 | ES-580 |
| 03 Detector Mount Wave Guide ----- | 1 | ES-539 |
| 04 Dielectric Antenna ----- | 1 | ES-573 |
| 05 E-Plane Band ----- | 1 | ES-562 |
| 06 E-Plane Sectorial Horn----- | 1 | ES-574 |
| 07 Ferrite Isolator ----- | 1 | ES-534 |
| 08 Frequency Meter Direct Reading ----- | 1 | ES-535 |
| 09 H-Plane Band----- | 1 | ES-563 |

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|--|---|----------|
| 10 H-Plane Sectorial Horn----- | 1 | ES-575 |
| 11 H-Plane Tee----- | 1 | ES-552 |
| 12 Klystron Mount with Klystron Tube 2K25 -- | 1 | ES-533 |
| 13 Klystron Power Supply ----- | 1 | KPS-801 |
| 14 Movable Short ----- | 1 | ES-540 |
| 15 Matched Termination ----- | 1 | ES-542 |
| 16 Parabolic Disc 8" Dia (Antenna) ----- | 1 | ES-577 |
| 17 Pick Up Horn Antenna----- | 1 | ES-570 |
| 18 Pyramidal Horn----- | 1 | ES-576 |
| 19 Radiation Pattern Turn Table ----- | 1 | ES-544 |
| 20 Slotted Broad Wall (Antenna)----- | 1 | ES-571 |
| 21 Slotted Narrow Wall (Antenna)----- | 1 | ES-572 |
| 22 Standard Gain Horn Antenna----- | 1 | ES-569 |
| 23 Slotted Section with probe carriage----- | 1 | ES-537 |
| 24 Smith Chart (Pad of 100Pcs) ----- | 1 | |
| 25 Tunable Probe----- | 1 | ES-538 |
| 26 Tripod Stand on table ----- | 1 | ES-541 |
| 27 Variable Attenuator 20db ----- | 1 | ES-536 |
| 28 VSWR Meter----- | 1 | VSWR-796 |
| 29 Wave Guide Stand ----- | 4 | ES-543 |
| 30 Wave Guide Twist ----- | 1 | ES-546 |
| 31 BNC to BNC Cable----- | 2 | |
| 32 Weight : 25 Kg. (Approx.) | | |
| 33 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References. | | |

OTHER APPARATUS REQUIRED :

- 01 Cathode Ray Oscilloscope 20MHz.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS