



**OMEGA TYPE ICT-907** Second order networks are important because of the fact that these are the simplest networks that produce the complete range of transient response from over damping to near oscillations. Although theoretical discussions are normally confined to passive RLC networks, such networks are limited in their performance due to the rather large resistance of any reasonable value inductance that might be constructed to operate at frequencies of few kHz. In the present unit active RC-network has been designed which span the complete behaviour of an equivalent passive RLC network. The user thus has the experience of Studying a near ideal passive second order network complete with all theoretical computations and their experimental verifications.

### OBJECT

- 01 Observe and trace from the CRO screen the step response for different values of  $z$ .
- 02 Plot the frequency response for various values of  $z$  and observe resonance.
- 03 Compute approximate values of equivalent network parameters.

### FEATURES

- 01 Active second order network
- 02 Damping control over, critical and under-damping
- 03 Built-in square wave signal Generator
- 04 Built-in sine wave signal Generator
- 05 Built-in DC Power Supply
- 06 Functional blocks indicated on-board Mimics
- 07 Exhaustive Learning Material
- 08 On board signal conditioning circuitry

### TECHNICAL SPECIFICATION

- |                         |                         |
|-------------------------|-------------------------|
| 01 Power Supply         | : 230V+5%, 50Hz         |
| 02 Interconnections     | : 4mm banana sockets    |
| 03 Power Consumption    | : 9 VA (approximately)  |
| 04 Operating Conditions | : 0-40°C, 85% RH        |
| 05 Dimension            | : W340xH125xD210 (mm)   |
| 06 Weight               | : 1.5Kg (approximately) |

### LIST OF ACCESSORIES:

- 01 Patch Cord 4mm length 50cm Red & Black..02

### OTHER APPARATUS REQUIRED:

- 01 Cathode Ray Oscilloscope 20MHz  
OMEGA TYPE CRO-20

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

**OMEGA ELECTRONICS**