EMC-TLA32 is a 3 axis 2m Diam. switchable loop antennas inclusive of supporting structure, for testing magnetic emission of fluorescent lamps in the bandwidth 9kHz - 30 MHz in accordance with specification CISPR 15 (EN 55015).

The performance of the loops is matched to the 'ideal' loop curves as shown in EN55015 fig. B4 using the prescribed test set-up.

The D.U.T. is positioned on the table and the height of the loop antenna mounting support adjusted to keep the D.U.T. in the center of the loop.

The Unit under Test is positioned under operating conditions in the center of the triple loop antenna. To measure the magnetic field strength without turning, there are loops in X,Y and Z direction. A current transformer converts the loop current into an appropriate voltage. Ferrite chokes reduce braid current on the coaxial cables which would cause wrong measurement. The switch box gives access in turn to one of the three loops via local control. The R.F. output is connected to the input of an interference measuring receiver. A transmitting dipole antenna substitute the E.U.T. during the calibration phase. A signal generator may be used as source for the calibration dipole.

Each loop contains a Balun transformer manufactured by MA-COM model: ET1-6T Precision toroid transformer, frequency range 9 kHz-100 MHz inside of a metal box with coaxial connectors.
# E-Series 1:1 Transformer

## 0.003 – 300 MHz

## Features
- 1:1 Impedance Ratio
- CT on secondary

## Specifications @ 25°C

### Frequency Range
0.003–300 MHz

### Insertion Loss
- 0.003–300 MHz: 3 dB Max
- 0.010–150 MHz: 2 dB Max
- 0.020–50 MHz: 1 dB Max

### Amplitude Imbalance
- 0.02–50 MHz: 0.1 dB Max
- 0.003–300 MHz: 0.5 dB Max

### Phase Imbalance
- 0.02–50 MHz: 1 ° Max
- 0.003–300 MHz: 5 ° Max

## Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>30 mA</td>
</tr>
</tbody>
</table>