**DESCRIPTION**

The unique winding arrangement of this impedance matching probe* provides step-up or step-down ratios with respect to either: 1) the source impedance of the connected generator, when used for injection, or 2) the load impedance of the connected receiver, when used for reception. This results in maximum power transfer into or out of the transformer winding formed by the cable bundle passing through the window.

The **Type 9335-2 Multiple Impedance Coupling Device** provides:

- 1:1.0 voltage or current transfer
- 1:1.5 voltage step-up or current step-down
- 2:1.0 voltage step-down or current step-up
- 1:3.0 voltage step-up or current step-down

These ratios are selected by connecting to one of the four BNC connectors on the side of the **Type 9335-2**.

Figure 1 shows a family of curves representing the transfer functions for each connector port when the device is used as an injection probe.

Through connector port selection, the open circuit voltage or short circuit current can be adjusted for maximum transfer of energy. This is especially useful as an accessory to the Model 9354-1 Universal Transient Pulse Generator with its differing source impedances, enabling it to meet various open circuit voltage, and short circuit current requirements.

**CALIBRATION**

For proper calibration of current probes, a special test fixture must be used to maintain a 50 ohm characteristic impedance for the test signal as it passes through the window of the probe.

The design of the **Type 9357-1 Calibration Fixture** was carefully tailored to provide a 50 ohm characteristic impedance based on the specific dimensions of the **Type 9335-2**. The fixture maintains a low standing wave ratio from 10 KHz to 10 MHz in a 50 ohm circuit.

* We refer to this unique device as the Knoll**er Probe**, since it is the brainchild of Hank Knoller, an EMC engineer with more than forty years experience in the design and application of equipment for EMI testing.