

Injection transformer range

Introduction

When testing the transfer function of a control loop, a 'disturbance signal' from which frequency response analysis can be made is 'injected' into the loop.

In order to ensure that the test system does not change the transfer function results, it is important that the signal generator providing the disturbance signal is isolated from the circuit being tested.

This isolation can be achieved using a transformer or active isolation circuit that meets the frequency range and voltage isolation requirements of a specific test environment.

Models and specifications

Standard injection transformer

Frequency range:	10Hz to 100kHz with flatness +0dB -3dB 10Hz to 200kHz useable with PSM1700 / 1735 / 3750
Turns ratio:	6.3 : 1
Size:	31x92x38mm
Voltage rating:	50V
Connectors	BNC Input Isolated BNC Output



PSM1700 testing an SMPS with a standard injection transformer

HF injection transformer

Frequency range:	500Hz to 35MHz with flatness +0dB -3dB
Turns ratio	2.3 : 1
Size:	31x92x38mm
Voltage rating:	50V
Connectors	BNC Input Isolated BNC Output

HV injection transformer

Frequency range:	5Hz to 15MHz with flatness +0dB -3dB
Turns ratio:	2.3 : 1
Size:	31x111x60mm
Voltage rating:	1KV Cat II
Connectors	BNC Input 2 x 4mm safety connector Output

Low Frequency Injection Module (LFIM) Opto-isolated active circuit

Frequency range:	DC to 100kHz with flatness +0dB -3dB
Turns ratio:	3.1 : 1
Size:	44x110x82mm
Voltage rating:	600V Cat II
Connectors	BNC Input 2 x 4mm safety connector Output
Input power:	12V (Universal power adaptor supplied standard)