

## 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 200kHz with flatness +0dB -3dB  
Turns ratio: 6.3 : 1  
Size: 31x92x38mm  
Voltage rating: 50V



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

#### **HV injection transformer**

Frequency range: 5Hz to 15MHz with flatness +0dB -3dB  
Turns ratio: 2.3 : 1  
Size: 31x111x60mm  
Voltage rating: 600V Cat II

#### **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  
Input power: 12V (Universal power adaptor supplied standard)