

TLP/VF-TLP Calibration Substrate CAL-02A

Advanced TLP/HMM/HBM Solutions

1 Features

- High quality ceramic substrate for TLP/VF-TLP system wafer-level calibration using ground-signal (GS) RF probes
- Probetip pitch range from 50 μm up to 3 mm
- 9 reference resistors in the range of 0.1, 0.2, 0.5, 1, 5, 10, 50, 100 and 500 Ω for calibration of the current measurement channel
- 500 Ω resistor for calibration of 2-pin HBM testers
- 7 reference Z-diodes in the range of 5, 7, 10, 18, 33, 68 and 120 V for calibration of the voltage measurement channel
- 1 silicon transient voltage suppressor (TVS) diode for reference measurement of the calibrated TLP/VF-TLP system
- 45 open-load and 45 short-circuit teststructures
- 10 custom reference device locations
- Rugged top layer metal gold coating
- Size 30.67 mm x 29.33 mm
- Protective case

2 Description

Different values of the reference devices are available on the CAL-02A substrate in order to calibrate the system in the desired voltage and current range where the device under test is to be expected. This gives maximum accuracy of the TLP/VF-TLP measurement result.

The sampling oscilloscope is one of the major limitations of measurement accuracy of the TLP system. Therefore, it is recommended to calibrate the system in the expected voltage range and current range of the device under test. For this reason 8 reference resistors in the range of 9 reference resistors in the range of 0.1, 0.2, 0.5, 1, 5, 10, 50, 100 and 500 Ω and 7 reference Z-diodes in the range of 5, 7, 10, 18, 33, 68 and 120 V are available on the CAL substrate.

The substrate material is Al_2O_3 with a rugged top layer metal gold coating. The test structure probing gap is 40 μm which is suitable for probetip pitch in the range from 50 μm up to 3 mm. The size of the substrate

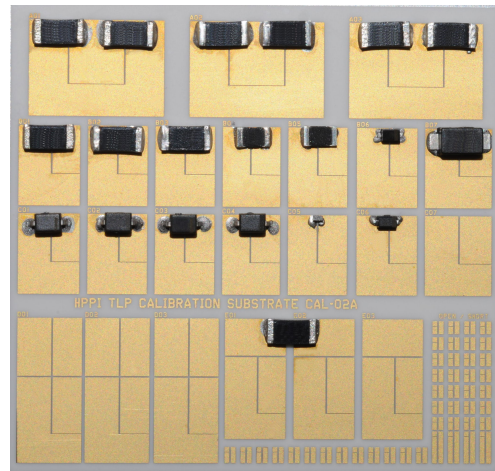


Figure 1: Ceramic calibration substrate CAL-02A (size 30.67 mm x 29.33 mm).



Figure 2: Protective case.

is 30.67 mm x 29.33 mm. The total height including reference devices is maximum 2.5 mm. The substrate is packed in a protective case.

The calibrations substrate is delivered including a reference value data sheet.

3 Ordering Information

| Pos. | Description | Part No. |
|------|----------------------------------|----------|
| 01 | TLP/VF-TLP Calibration Substrate | CAL-02A |

General

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