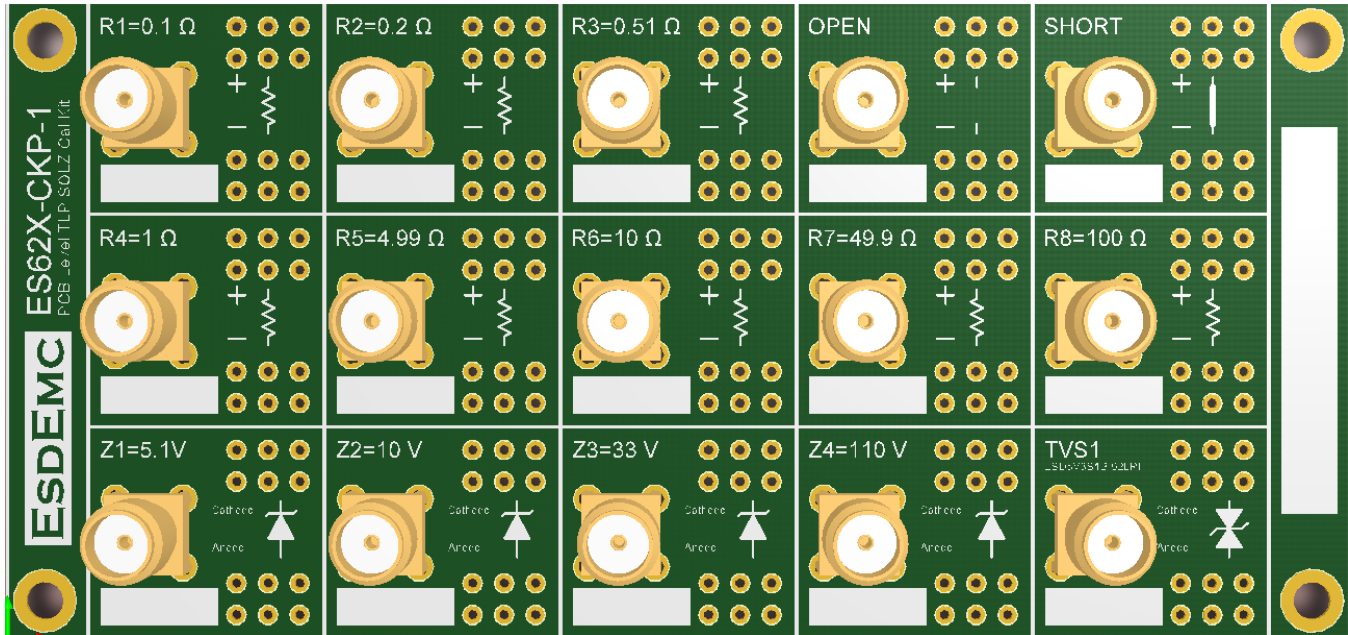


ES62X-CKP PCB Level TLP SOLZ Calibration Kit



1. Description

The TLP measurement errors is caused by the combination of the probing contacts resistance, interconnection loss and mismatch, inaccuracy of attenuation values, and oscilloscope offset & scale errors. These errors are can be minimized by the Short-Open-Load-Zener (SOLZ) calibration method (per ESDA TR5.5-02-08 Transmission Line Pulse Round Robin). Different values of the reference devices are available on the ES62X-CKP to calibrate TLP measurement system in the desired voltage and current range where the device under test (DUT) is to be expected.

In this calibration kit, 1 short and 1 open circuit test structure are available to evaluate the calibration performance for the system in series resistance and in parallel conductance or measurement dynamic range. 8 precision reference resistors in the range of 0.1, 0.2, 0.51, 1, 4.99, 10, 49.9, and 100 Ω has been selected for the calibration of TLP current measurement channel, 4 precision reference Zener-diodes in the range of 5.1, 10, 33, and 110 V for calibration of the voltage measurement channel. One transient voltage suppressor (TVS) diode is for the reference measurement of the calibrated TLP system. Each reference device has 3X2 socket pins and 1 SMA connector for pulse sense and optional ground sense measurement and calibration.

2. Features

- High quality SOLZ calibration kit for package- or PCB-level TLP measurements calibration
- 8 precision reference resistors in the values of 0.1, 0.2, 0.51, 1, 4.99, 10, 49.9, and 100 Ω for the calibration of TLP current measurement channel
- 4 precision reference Zener-diodes in the range of 5.1, 10, 33, and 110 V for calibration of the voltage measurement channel
- 1 OPEN and 1 SHORT test structure
- 1 transient voltage suppressor (TVS) diode for reference measurement of calibrated TLP system
- Rugged protective case
- Calibration Report

3. Applications

- Package- or PCB-level TLP SOLZ calibration

4. Specifications

| Parameters | Values | Unit | Comments |
|-----------------------------|--|----------|-------------------------------------|
| Values of resistors | 0.1, 0.2, 0.51, 1, 4.99, 10, 49.9, 100 | Ω | 1 % precision (8 total) |
| Values of Z-diodes | 5.1, 10, 33, 110 | V | 1 % precision (4 total) |
| Breakdown voltage of TVS #1 | 6 | V | Calibration sheet has better number |
| Max TLP Current of TVS #1 | >40 | A | Tested with 100 ns TLP |
| TLP Port Connection | SMA & 2.54 Socket Pin | NA | |
| PCB Dimension | 51 x 108 | mm | |

5. Ordering Information

| Line | Part # or Option # | Description |
|------|--------------------|---|
| 1 | ES62X-CKP-0 | Package or PCB Level TLP SOLZ Calibration Kit (Bare PCB Only) |
| 2 | ES62X-CKP-1 | Package or PCB Level TLP SOLZ Calibration Kit |