

## TOSLN50A-18 Calibration Kit

Type N(m)  
DC to 18 GHz, 50  $\Omega$

This calibration kit has been designed to provide superior measurement results when used with precision instruments. It is designed for use in both field and lab environments. It is a high precision component and should be handled with proper care. Excessive shock, torque, or power should be avoided to prevent permanent damage.

Specifications for units within recommended calibration cycle are guaranteed under the following conditions:

1. Unit is operated within specified temperature range.
2. Unit has not been subjected to damage from mishandling.

Length, capacitance, and inductance are nominal values.

Open and Short Phase, Through Return Loss and Insertion Loss, and DC Resistance specifications are typical. Phase is measured as a deviation from the model defined by offset length and inductance or capacitance.

|   |  |
|---|--|
| <b>Operating Temperature Range</b>      | -10 °C to +55 °C (MIL-PRF-28800F, Class 2) |
| <b>Storage Temperature Range</b>        | -51 °C to +71 °C (MIL-PRF-28800F, Class 2) |
| <b>Recommended Calibration Interval</b> | 1 year                                     |

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TOSLN50A-18 Calibration Kit TDS  
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## TOSLN50A-18 Calibration Kit Specifications

| Through (Thru)             | Spec                  |
|----------------------------|-----------------------|
| Length                     | 58.5 mm               |
| Return Loss (DC to 6 GHz)  | ≥ 40 dB               |
| Return Loss (6 to 9 GHz)   | ≥ 36 dB               |
| Return Loss (9 to 18 GHz)  | ≥ 32 dB               |
| Insert Loss (DC to 18 GHz) | ≤ 0.025 x √(f/GHz) dB |

| Open                         | Spec     |
|------------------------------|----------|
| Length                       | 17.83 mm |
| C0 (1E-15) F                 | 4.000    |
| C1 (1E-27) F/Hz              | 200.000  |
| C2 (1E-36) F/Hz <sup>2</sup> | 0.000    |
| C3 (1E-45) F/Hz <sup>3</sup> | 1.100    |
| Phase (DC to 6 GHz)          | ≤ ± 2.0° |
| Phase (6 to 9 GHz)           | ≤ ± 3.0° |
| Phase (9 to 18 GHz)          | ≤ ± 4.0° |

| Short                        | Spec     |
|------------------------------|----------|
| Length                       | 17.83 mm |
| L0 (1E-12) H                 | 0.000    |
| L1 (1E-24) H/Hz              | 0.000    |
| L2 (1E-33) H/Hz <sup>2</sup> | 0.000    |
| L3 (1E-42) H/Hz <sup>3</sup> | 0.000    |
| Phase (DC to 6 GHz)          | ≤ ± 1.5° |
| Phase (6 to 9 GHz)           | ≤ ± 2.5° |
| Phase (9 to 18 GHz)          | ≤ ± 3.0° |

| Load                      | Spec          |
|---------------------------|---------------|
| DC Resistance             | 50 Ω ± 0.25 Ω |
| Return Loss (DC to 6 GHz) | ≥ 42 dB       |
| Return Loss (6 to 9 GHz)  | ≥ 37 dB       |
| Return Loss (9 to 18 GHz) | ≥ 33 dB       |
| Max Power                 | 1.0 W         |