

**Technical Data Sheet**

# 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

### Calibration Options

- TOSLN-0098 Standard Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate.
- TOSLN-0099 Premium Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate, test report, and uncertainty data.

For the latest information, sales, or service, visit: [www.anritsu.com](http://www.anritsu.com)

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 $\sqrt{(f/\text{GHz})}$ 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