# Product Description:    LCAL09A (DC- 9.0 GHz SMA Precision Calibration Kit)

Wooden Box
4.12" x 3.45" x 1.5"

Plastic ESD Box
2.56" x 2.56" x 0.5"

LiConn has developed high precision SMA calibration Kit for the calibration of a vector network analyzer (VNA). The calibration kit can be used for the Short-Open-Load-Thru (SOLT) or Line-Reflect-Match (LRM) Full-Two-Port calibration.

The calibration kit is compatible to or better than the brand named models but is tenth fraction of their cost. Moreover, The calibration is packaged in a miniature box and very user friendly.

## Key Performance

- DC ~ 9 GHz
- 40 dB   Return Loss
- SMA High Precision Short
- SMA High Precision Open
- SMA High Precision Load
- SMA High Precision Thru
- SMA Female Set
- Very Low Cost
- Long Life Time
- Annual Calibration Provided (optional)
- RoHS Compliant
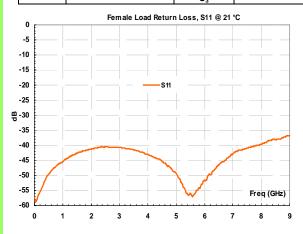- All Parts and Containers are Made in USA
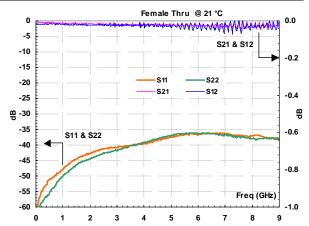
## Order Information/Kit Structure

| Model Number | LCAL09A (SMA Female Set for VNA with Male Connectors) |
|---|---|
| **Short** | L022 (SMA Male, use with L020) |
| **Open** | L023 (SMA Male, use with L020) |
| **Load** | L024 (SMA Male, use with L020) |
| **Thru** | L020 (SMA Female/Female) |

## Specifications

Summary of the electrical specifications of sample LCAL09A at 21°C:
Each Calibration Kit will be measured for it's own parameters.

| Index | Testing Item | Symbol | Test Constraints | Min. | Nom. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| 1 | Load Return Loss | $S_{11, L}$ | DC – 3.0 GHz | 40 | | | dB |
| | | | 3.0 – 9.0 GHz | 35 | | | dB |
| 2 | Thru Return Loss | $S_{11, T}$ | DC – 3.0 GHz | 40 | | | dB |
| | | | 3.0 – 9.0 GHz | 35 | | | dB |
| 3 | Thru Insertion Loss | $S_{21, T}$ | DC – 9.0 GHz | | | 0.10 | dB |
| 4 | Thru Offset | $T_{to}$ | L020 | | 56.57 | | pS |
| 5 | Load Offset | $T_{Lo}$ | With L020 | | 0 | | pS |
| 6 | Short Offset | $T_{So}$ | With L020 | | 56.57 | | pS |
| 7 | Open Offset | $T_{oo}$ | With L020 | | 56.57 | | pS |
| 8 | Open Capacitances | $C_0$ | | | 45 | | $10^{-15}$ F |
| | | $C_1$ | | | 6 | | $10^{-27}$ F/Hz |
| | | $C_2$ | | | -2.5 | | $10^{-36}$ F/Hz^2 |
| | | $C_3$ | | | 0 | | $10^{-45}$ F/Hz^3 |



Female Load Return Loss, S11 @ 21 °C



Female Thru  @ 21 °C

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