

**7mm SOL VNA Calibration Kit up to 18 GHz,
Including Short Circuit, Open Circuit, and Load**

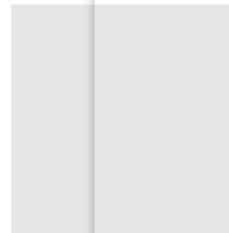
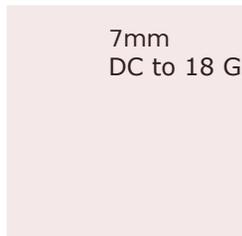
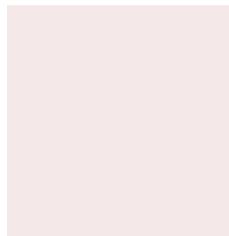
Fairview Microwave's 7mm 18 GHz VNA calibration kit is used to calibrate a Vector Network Analyzer (VNA) and associated test setup, thus removing the test instrumentations influence on the device under test (DUT) and allowing the best possible error-free characterization of the DUT. The FMCK1023 SOL cal kit includes a 7mm fully-characterized Short Circuit, Open Circuit, and Fixed Load used in a standard multi-port VNA calibration process. In addition to the RF calibration standards, a fixed torque break-over style torque wrench is included for use in mating and de-mating calibration components. Component correction factors have also been documented and are supplied in this VNA calibration kit datasheet. The data file may be downloaded from the FMCK1023 product page on Fairview Microwave's web site or requested by contacting technical support.

A properly performed n-port SOL calibration allows for full characterization of the VNA test ports. RF calibrations performed using high-quality VNA test cables effectively extends the vector network analyzer test ports to the end of the cables, and this allows for greater flexibility when characterizing a product under test.

Available in-stock and ships same day!

Configuration

Connector
Frequency Range



Features:

- Cal kit definition files for Keysight, Rohde & Schwarz, and Anritsu VNAs
- Works with all major VNAs
- Protective wooden case for safe storage of components
- Torque wrench included

Applications:

- Calibration of Vector Network Analyzers
- Research and development
- Aerospace and defense
- Production test environments

Fairview Microwave
301 Leora Ln., Suite 100
Lewisville, TX 75056
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Electrical Specifications for FMCK1023 7mm Devices

Item	Part Number	Specifications	Frequency (GHz)
7mm Termination	FMTR1063	1.005 Max VSWR 1.01 Max VSWR 1.03 Max VSWR 1.06 Max VSWR	DC to 1 1 to 2 2 to 8 8 to 18
7mm Short	FMSC3018	±0.3° deviation from nominal	DC to 18
7mm Open	FMSC3033	±0.3° deviation from nominal	DC to 18
Torque Wrench	ST-N-34-BO14	14 in-lb Torque Setting	

FMSC3018 7mm Short Specifications



ELECTRICAL		UNIT
Frequency Range	DC to 18	GHz
Phase	DC to 18GHz ±0.3°	Max
Offset Impedance	50	Ω
Offset Loss	0	GΩ/s
Electrical Delay	0	nS
Inductance	$L0 \times 10^{-12} = 0.0$	H
	$L1 \times 10^{-24} = 0.0$	H/Hz
	$L2 \times 10^{-33} = 0.0$	H/Hz ²
	$L3 \times 10^{-42} = 0.0$	H/Hz ³

MECHANICAL	
Housing	Beryllium Copper/Stainless Steel
Connector	7mm
Screw Thread	11/16-24 UNEF-25
Dimensions	0.87 [22.1]Ø, 1.25 [31.8] Length
Pin Depth	N/A

FMSC3033 7mm Open Specifications



ELECTRICAL		UNIT
Frequency Range	DC to 18	GHz
Phase	DC to 18GHz $\pm 0.3^\circ$	Max
Offset Impedance	50	Ω
Offset Loss	0	G Ω /s
Electrical Delay	0	pS
Capacitance	$C0 \times 10^{-15} = 92.9$	F
	$C1 \times 10^{-27} = 0.0$	F/Hz
	$C2 \times 10^{-36} = 7.2$	F/Hz ²
	$L3 \times 10^{-45} = 4.3$	F/Hz ³

MECHANICAL	
Housing	Beryllium Copper/Stainless Steel
Connector	7mm
Screw Thread	11/16-24 UNEF-2B
Dimensions	0.87 [22.1] ϕ , 1.25 [31.8] Length
Pin Depth	0 - 0.0002

FMTR1063 7MM Termination Specifications



ELETRICAL		UNIT
Frequency Range	DC to 18	GHz
VSWR at Frequency Range	DC to 1 GHz	1.005 Max
	1 to 2 GHz	1.01 Max
	2 to 8 GHz	1.03 Max
	8 to 18 GHz	1.06 Max
Impedance	50	Ω
Power Rating	1 watt CW	
	1kW Peak	
MECHANICAL		
Housing	Aluminum/Copper	
Connector	7mm	
Screw Thread	11/16-24 UNEF-2B	
Dimensions	0.87 [22.1] ϕ , 1.42 [36.07] Length	
Pin Depth	0 - 0.0015	

General Instructions and Usage Notes

#	Notes
1	Keep provided protective blue caps installed when not in use.
2	Store in climate controlled environment.
3	Always keep connectors clean.
4	Avoid touching the connector interface.
5	Use caution when handling.
6	For female components, do not insert male pin greater than 0.037" [.94 mm]. Failure to comply will result in damage to the female connector.
7	When mating, always ensure that the components to be interconnected remain in a fixed position while rotating only the coupling nut slowly to mate the connectors.
8	When de-mating, always ensure that the interconnected components remain in a fixed position while rotating only the coupling nut slowly to de-mate the connectors.
9	Visually inspect the connector threads prior to use. If needed, clean the center conductor pin and outer conductor with alcohol to remove any debris that may be present. Be sure to apply the alcohol in a circular motion with a lint-free cloth or applicator.
10	Use at room temperature.

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

7mm SOL VNA Calibration Kit up to 18 GHz, Including Short Circuit, Open Circuit, and Load from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [7mm SOL VNA Calibration Kit up to 18 GHz, Including Short Circuit, Open Circuit, and Load FMCK1023](#)

URL: <https://www.fairviewmicrowave.com/7mm-short-open-load-sol-analyzer-calibration-kit-18ghz-fmck1023-p.aspx>

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