

75 Ohm F Calibration Kit for General Purpose Includes Short Circuit, Open Circuit, Load and Thru Components Up to 3 GHz



FMCK1002

Features

- Functional from DC to 3 GHz
- Standard kit includes (7) F Type short-open-load-thru (SOLT) components
- Suitable for many 75 Ohm network analyzers including, but not limited to:
- Agilent / HP (8711/8713/8714, 8753E-075, E5061A, E5062A, E5061B)
- Rohde & Schwarz (R&S ZVL3-75 [9KHz - 3GHz, Built-in 85039B Calibration Kit Option])
- Tianda (TD3618C/E)
- OuFu (OF7631B, OF7633B)
- Copper Mountain (7530)
- Deviser (NA7300B, NA7100B)
- EI41 (AV36580A)
- PNA (PNA3766)

Applications

- VNA, Full 2-Port CAL
- VNA, Thru CAL
- VNA, Substitution CAL Method
- Test & Measurement
- Lab Equipment Accessories
- Engineering Test and Evaluation
- General Purpose Test and Evaluation

Description

The new FMCK1002 Calibration Kit from Fairview Microwave is designed to withstand daily use in high-traffic environments such as in the testing lab or on the production floor. This cost effective calibration kit provides reliable and accurate instrument tuning for all of your test and measurement requirements. Fairview Microwave carries a broad selection of off-the-shelf calibration kits and T&M components all of which ship the same day you order them.

Configuration

Connector	F
Impedance	75 Ohms
Frequency Range	DC to 3 GHz

FMCK1002 Standard Kit Specifications

Part Number	Frequency Range	Connector Type	Connector Gender	Type	Impedance
FMSC2004	DC - 3000 MHz	F Type	Female	Open	75 Ohm
FMSC2005	DC - 3000 MHz	F Type	Male	Open	75 Ohm
FMSC1004	DC - 3000 MHz	F Type	Female	Short	75 Ohm
FMSC1005	DC - 3000 MHz	F Type	Male	Short	75 Ohm
FMTR1004	DC - 3000 MHz	F Type	Female	Load	75 Ohm
FMTR1005	DC - 3000 MHz	F Type	Male	Load	75 Ohm
FMSC3005	DC - 3000 MHz	F Type	Female to Female	Thru	75 Ohm

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FMSC2004 F Type Female Open Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Phase, DC - 1000 MHz	1°	Nominal	1°	Degrees
Phase, 1001 - 3000 MHz	2°	Nominal	2°	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Female	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.63 [16] ϕ , 1.398 [35.5] L	Inch [mm]
Net Weight	35	g

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FMSC2005 F Type Male Open Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Phase, DC - 1000 MHz	1°	Nominal	1°	Degrees
Phase, 1001 - 3000 MHz	2°	Nominal	2°	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Male	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.63 [16] ϕ , 1.626 [41.3] L	Inch [mm]
Net Weight	45.2	g

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FMSC1004 F Type Female Short Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Phase, DC - 1000 MHz	1°	Nominal	1°	Degrees
Phase, 1001 - 3000 MHz	2°	Nominal	2°	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Female	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.63 [16] ϕ , 1.398 [35.5] L	Inch [mm]
Net Weight	36.6	g

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FMSC1005 F Type Male Short Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Phase, DC - 1000 MHz	1°	Nominal	1°	Degrees
Phase, 1001 - 3000 MHz	2°	Nominal	2°	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Male	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.63 [16] ϕ , 1.626 [41.3] L	Inch [mm]
Net Weight	47	g

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FMTR1004 F Type Female Load Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Return Loss, DC - 1000 MHz	38	40		dB
Return Loss, 1001 - 3000 MHz	36	38		dB

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Female	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.697 [17.7] ϕ , 1.532 [38.9] L	Inch [mm]
Net Weight	45.8	g

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FMTR1005 F Type Male Load Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Return Loss, DC - 1000 MHz	38	40		dB
Return Loss, 1001 - 3000 MHz	36	38		dB

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Male	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.697 [17.7] ϕ , 1.76 [44.7] L	Inch [mm]
Net Weight	54.6	g

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FMSC3005 F Type Female to Female Thru Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Insertion Loss, DC - 3000 MHz		0.05	0.2	dB
Return Loss, DC - 1000 MHz	40	45		dB
Return Loss, 1001 - 3000 MHz	30	35		dB

Mechanical Specifications

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm F Type Female (Both Ends)	
Connector Screw Thread	W3/8"-32 UNEF	Inch
Dimensions	0.623 [15.8] ϕ , 1.402 [35.6] L	Inch [mm]
Net Weight	21.2	g

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General Instructions and Usage Notes

#	Notes
1	Keep provided protective red 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.

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Typical Performance Data

FMTR1004 Return Loss
Span: 3 GHz

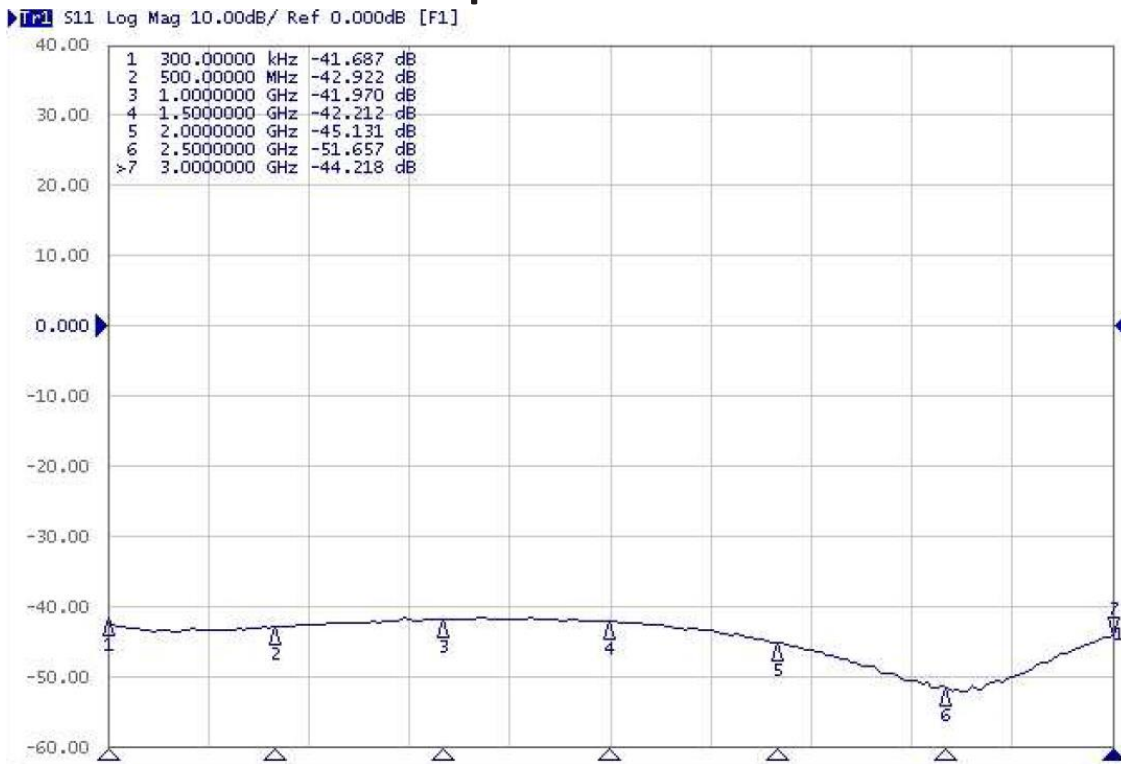


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FMTR1005 Return Loss Span: 3 GHz

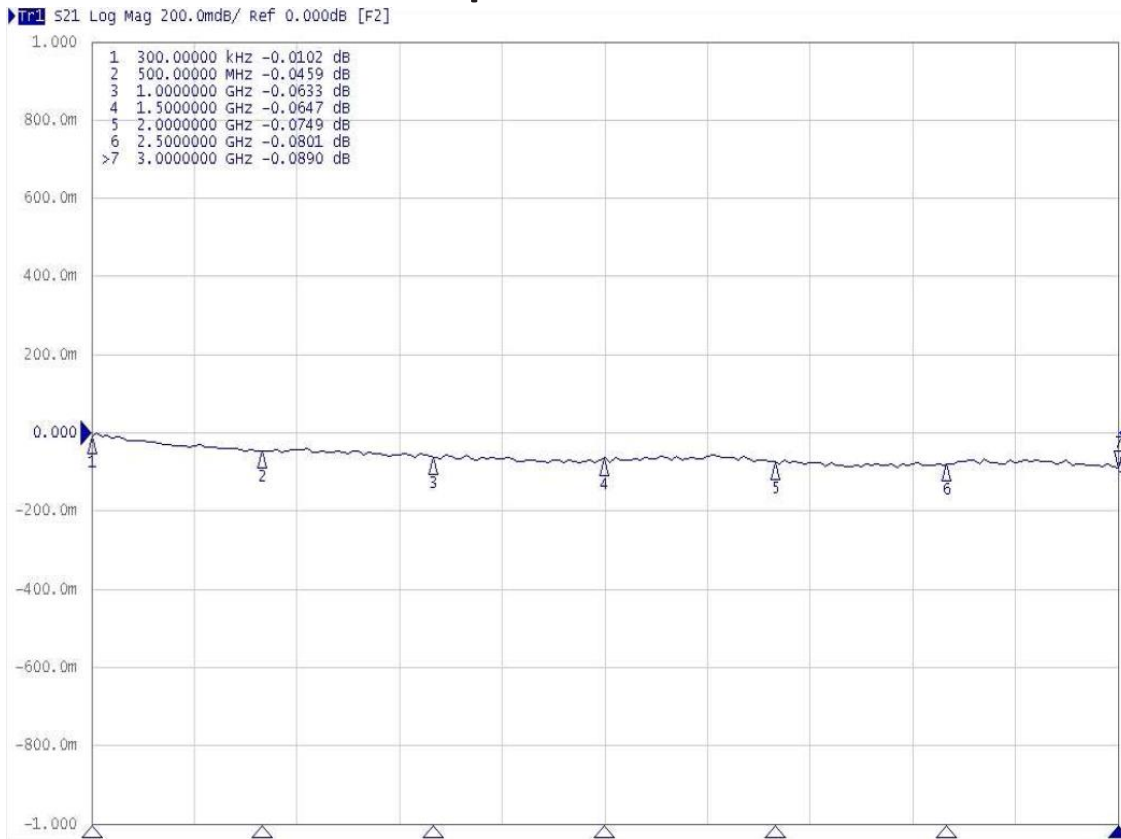


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FMSC3005 Insertion Loss Span: 3 GHz

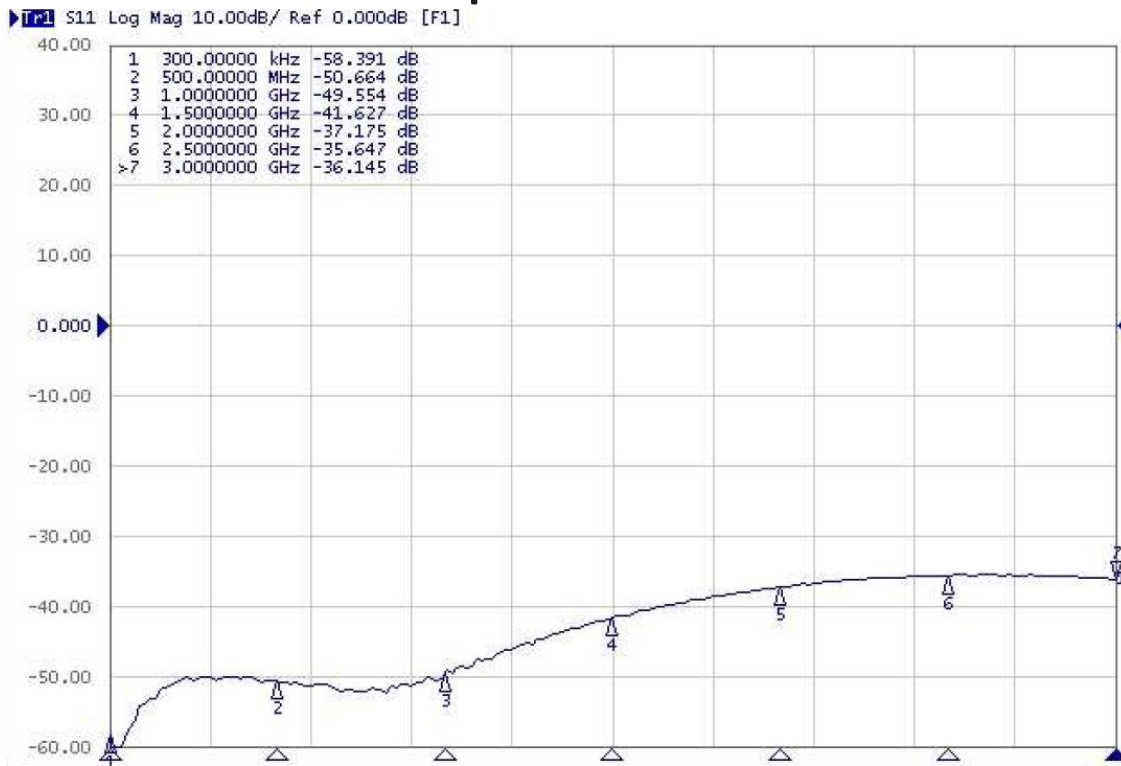


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FMSC3005 Return Loss Span: 3 GHz



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Standard Kit Definitions

Item	Type	C0*10 ⁻¹⁵ F	C1*10 ⁻²⁷ F/Hz	C2*10 ⁻³⁶ F/Hz ²	C3*10 ⁻⁴⁵ F/Hz ³	Fixed or Sliding	Offset			Freq (GHz)	
							Delay (ps)	Z0 (ohm)	Loss (ohm/s)	Min	Max
FMSC2004	Open Female	42.945	98.387	706.93	-114.957		53.6	75	1.64G	0	999
FMSC2005	Open Male	42.945	98.387	706.93	-114.957		53.6	75	1.64G	0	999
FMSC1004	Short Female	0	0	0	0		57	75	1.8G	0	999
FMSC1005	Short Male	0	0	0	0		57	75	1.8G	0	999
FMTR1004	Load Female					Fixed	0	75	1.13G	0	999
FMTR1005	Load Male					Fixed	0	75	1.13G	0	999
FMSC3005	Through						-124	75	1.13G	0	999

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

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

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75 Ohm F Calibration Kit for General Purpose Includes Short Circuit, Open Circuit, Load and Thru Components Up to 3 GHz 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: [75 Ohm F Calibration Kit for General Purpose Includes Short Circuit, Open Circuit, Load and Thru Components Up to 3 GHz FMCK1002](#)

URL: <https://www.fairviewmicrowave.com/open-short-load-calibration-kit-type-75-ohm-f-3-ghz-fmck1002-p.aspx>

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