

**Type F 75 Ohm Test and Measurement Kit includes Type N to F Armored Test Cables with SOLT Calibration Components and Precision Accessories**

Starting with a 75 Ohm Type F SOLT calibration Kit this test and measurement kit includes all of the components and accessories needed to make accurate 75 Ohm measurements using 50 Ohm Type N measurement systems. The Type N impedance matching pads and Type N to Type F Armored cable assemblies allow the user to make accurate Type F measurements to 3 GHz. The complete set of 75 Ohm components and accessories are safely organized and packaged in a sturdy box for years of reliable operation. This 75 Ohm type F calibration kit is in-stock and ready to ship same day.

**Configuration**

Connector  
Impedance  
Frequency Range

F Sexless  
75 Ohms  
DC to 3 GHz

Type F 75 Ohm Test and Measurement Kit Includes N Male to F Male Armored Test Cables and SOLT Calibration Components and Test Accessories				
Kit Components	Part Number	Description	QTY	
75 Ohm Cal Kit	FMCK1002	75 Ohm Type F Test Measurements Kit with SOLT Calibration Components, N male to F Male Armored	1	
	FMSC2004	Female Open	1	
	FMSC2005	Male Open	1	
	FMSC1004	Female Short	1	
	FMSC1005	Male Short	1	
	FMSC3005	Thru Adapter Female to Female	1	
	FMTR1004	Female Load	1	
	FMTR1005	Male Load	1	
	Test Cables	FMCA1031-60CM	75 Ohm N Male to F Male Armored Test Coax and RoHS Complaint	2
	Matching Pads	FMMP1003	Matching Pad 50 Ohm to 75 Ohm N Female, RoHS Compliant	2
Loads/Termination	FMTR1015	75 Ohm RF Load 2 Watts to 3 GHz Precision F Male	2	
Adapters	FMAD1066	Precision 75 Ohm F Female to F Female Adapter	2	
	FMAD1065	Precision 75 Ohm F Male to F Male Adapter	2	



**Features:**

- DC to 3 GHz operating range
- 7 pc SOLT (short-open-load-thru) F Type calibration components
- Type N to Type F 75 Ohm Armored test cables
- 50 to 75 Ohm type N Matching Pads
- Type F Adapters and Terminations

**Applications:**

- Calibration of 75 Ohm Test Equipment

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](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**FMCK1002 75 Ohm F Calibration Kit for General Purpose Includes Short Circuit, Open Circuit, Load and Thru Components Up to 3 GHz**



## Type F Components

ITEM	Description	FREQUENCY RANGE	Connector Type	Gender	IMPEDANCE
FMSC2004	Open	DC - 3000 MHz	F Type	Female	75 Ohm
FMSC2005	Open	DC - 3000 MHz	F Type	Male	75 Ohm
FMSC1004	Short	DC - 3000 MHz	F Type	Female	75 Ohm
FMSC1005	Short	DC - 3000 MHz	F Type	Male	75 Ohm
FMTR1004	Load	DC - 3000 MHz	F Type	Female	75 Ohm
FMTR1005	Load	DC - 3000 MHz	F Type	Male	75 Ohm
FMSC3005	Thru	DC - 3000 MHz	F Type	Female to Female	75 Ohm

**FMSC2004 75 Ohm F Female Open Circuit Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Phase (DC - 1000 MHz)	1°	Nominal	1°	Degrees
Phase (1000 - 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] (∅) x 1.398 [35.5] (L)	Inch [mm]
Net Weight	35	g

**FMSC2005 75 Ohm F Male Open Circuit Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Phase (DC - 1000 MHz)	1°	Nominal	1°	Degrees
Phase (1000 - 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] (∅) x 1.626 [41.3] (L)	Inch [mm]
Net Weight	45.2	g

**FMSC1004 75 Ohm F Female Short Circuit Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Phase (DC - 1000 MHz)	1°	Nominal	1°	Degrees
Phase (1000 - 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] (∅) x 1.398 [35.5] (L)	Inch [mm]
Net Weight	36.6	g

**FMSC1005 75 Ohm F Male Short Circuit Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Phase (DC - 1000 MHz)	1°	Nominal	1°	Degrees
Phase (1000 - 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] (∅) x 1.626 [41.3] (L)	Inch [mm]
Net Weight	47	g

**FMSC3005 75 Ohm F Thru Calibration Kit Component for  
 General Purpose Up to 3 GHz**



**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
Insertion Loss, DC - 1000 MHz	40	45		dB
Insertion 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	0.63 [16] (∅) x 1.402 [35.6] (L)	Inch [mm]
Net Weight	21.2	g

**FMTR1004 75 Ohm F Female Load Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Insertion Loss, DC - 1000 MHz	38	40		dB
Insertion 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] (Ø) x 1.532 [38.9] (L)	Inch [mm]
Net Weight	45.8	g

**FMTR1005 75 Ohm F Male Load Calibration Kit  
 Component for General Purpose Up to 3 GHz**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Insertion Loss, DC - 1000 MHz	38	40		dB
Insertion 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] (∅) x 1.76 [44.7] (L)	Inch [mm]
Net Weight	54.6	g

**FMCA1031 75 Ohm N Male to 75 Ohm F Male Cable 75 Ohm Armored Test Coax and RoHS Compliant**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 3000			MHz
Impedance	75			Ohm
Insertion Loss (DC to 3000 MHz)			0.5	dB
Return Loss (DC - 1000 MHz)	25	35		dB
Return Loss (1000 - 2000 MHz)	25	30		dB
Return Loss (2000 - 3000 MHz)	23	28		dB

**Mechanical Specifications**

Item	Description	Units
Connector	75 Ohm N Type Male to F Type Male	
Inner Conductor Material and Plating	N Type: Brass, Gold F Type: Beryllium Copper, Gold	
Body Material and Plating	Brass, Gold	
Length	60	CM
Net Weight	145	g

**FMMP1003 Matching Pad 50 Ohm N Male to 75 Ohm N Female**  
**Operating From 0.009 MHz to 3 GHz RoHS Compliant**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		50 - 75		Ohm
Insertion Loss (DC to 2000 MHz)		5.5	6	dB
Insertion Loss (2000 to 3000 MHz)		5.5	6.5	dB
Return Loss (DC - 2000 MHz)	25	30		dB
Return Loss (2000 - 3000 MHz)	23	27		dB
Flatness (DC - 3000 MHz)			0.5	dB
Flatness (2000 - 3000 MHz)			0.8	dB

**Mechanical Specifications**

Item	Description	Units
Housing	Copper Tube	
Connector	N Type-Male 50 Ohm N Type-Female 75 Ohm	
Dimensions	0.80 (ø) x 2.9 (L)	Inch
Net Weight	77.5	g

**FMTR1015 75 Ohm RF Load 2 Watts to 3 GHz  
 Precision F Male**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Return Loss (DC - 1000 MHz)	35	40		dB
Return Loss (1000 - 2000 MHz)	30	35		dB
Return Loss (2000 - 3000 MHz)	25	30		dB

**Mechanical Specifications**

Item	Description	Units
Housing	Copper Tube	
Connector	75 Ohm Male F Type	
Connector Screw Thread	3/8 - 32 UNEF	Inch
Dimensions	0.60 (∅) x 1.37 (L)	Inch
Net Weight	32.5	g

**FMAD1066 Precision 75 Ohm F Male to F Male Adapter**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Insertion Loss (DC - 3000 MHz)		0.1	0.3	dB
Return Loss (DC - 1000 MHz)	30	35		dB
Return Loss (1000 - 2000 MHz)	25	30		dB
Return Loss (2000 - 3000 MHz)	22	30		dB

**Mechanical Specifications**

Item	Description	Units
Connector	75 Ohm Precision F Male to F Male Adapter	
Contact Material and Plating	Brass, Nickel	
Connector Material and Plating	Brass, Gold	
Dimensions	0.50 (ø) x 1.34 (L)	Inch
Net Weight	14	g

**FMAD1065 Precision 75 Ohm F Female to F Female Adapter**



**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range		DC - 3000		MHz
Impedance		75		Ohm
Insertion Loss (DC - 3000 MHz)		0.2	0.5	dB
Return Loss (DC - 3000 MHz)	18	20		dB

**Mechanical Specifications**

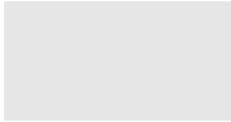
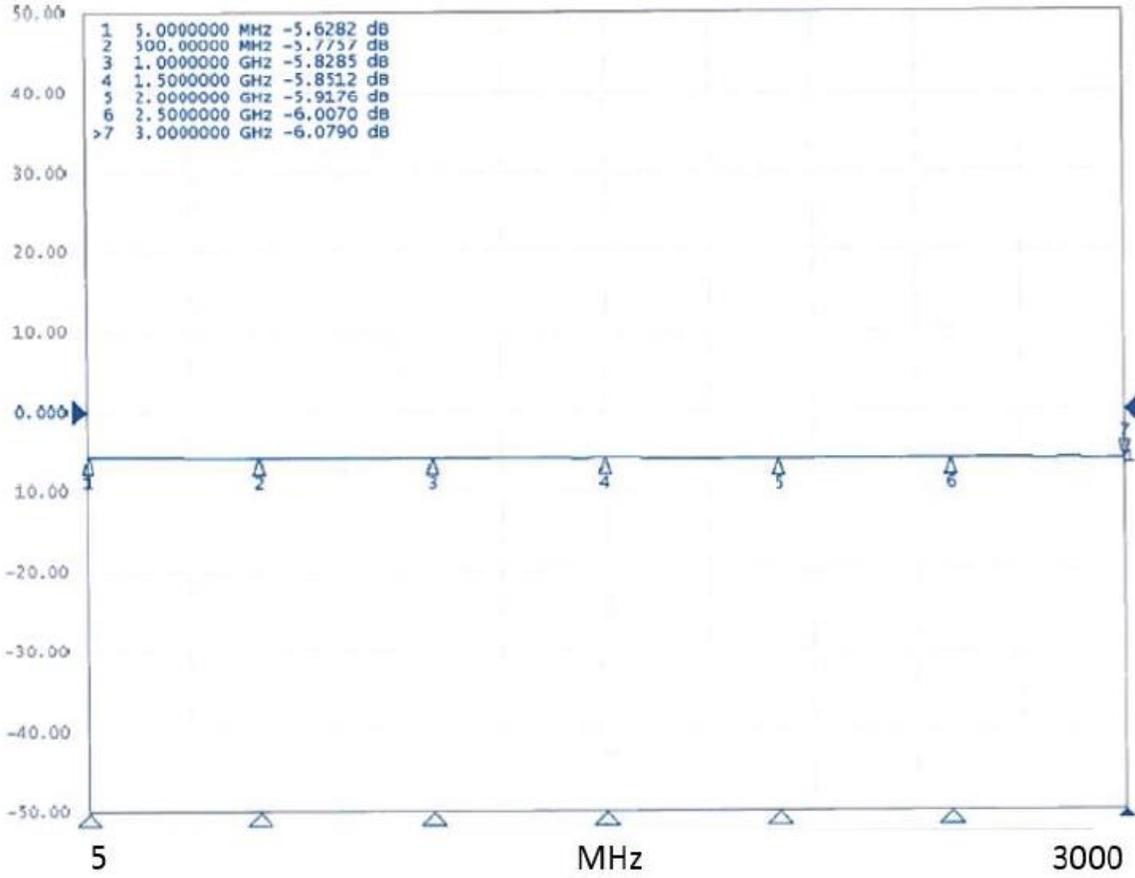
Item	Description	Units
Connector	75 Ohm Precision F Female to F Female Adapter	
Contact Material and Plating	Brass, Nickel	
Connector Material and Plating	Beryllium Copper, Gold	
Dimensions	0.50 (ø) x 1.02 (L)	Inch
Net Weight	6.5	g

## General Instructions and Usage Notes

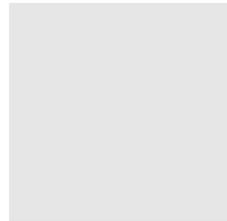
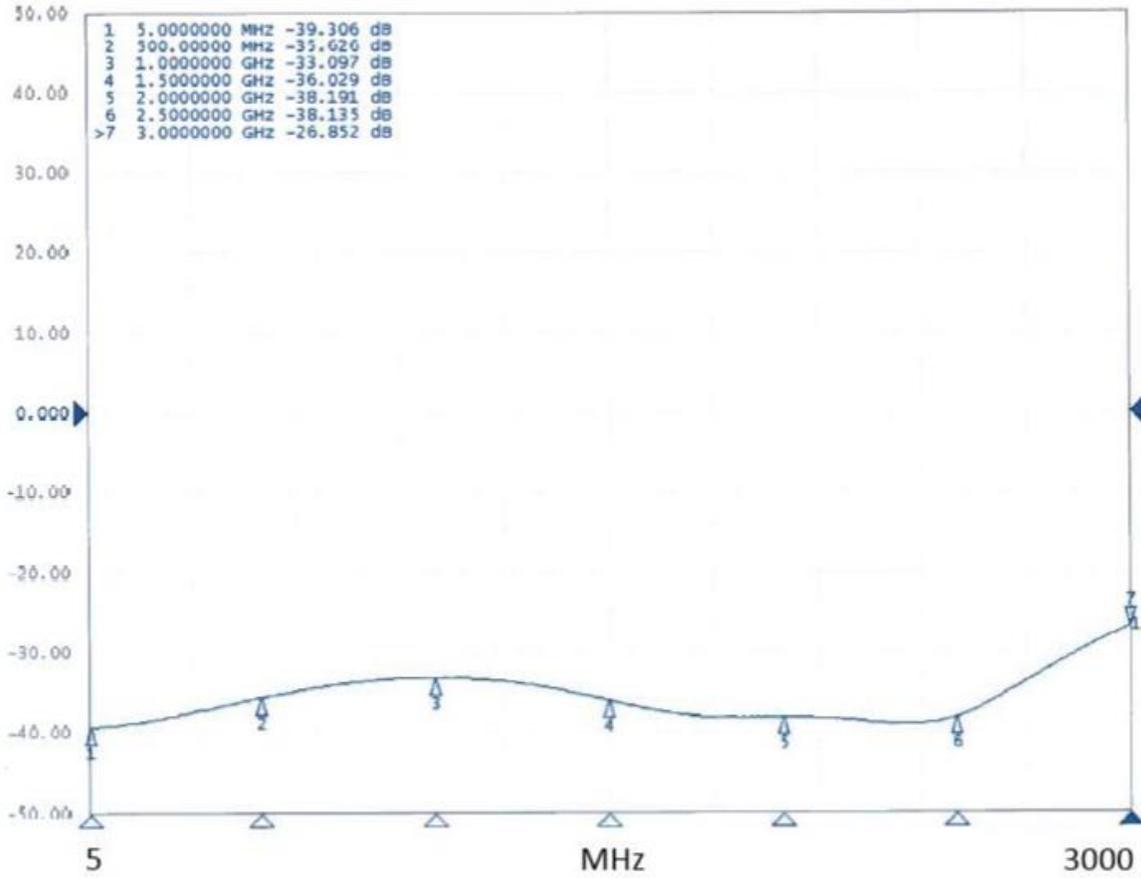
#	Notes
1	After use please place protective covers on both connectors and put back in kit box.
2	Keep connectors clean, and avoid touching the connectors.
3	Do not insert male pins with a diameter greater than <b>0.86 mm</b> , this will damage the female pin.
4	When Mating with RG6 Coax, please use a connector saver to prevent damage on the F Female terminations.
5	Do not insert male pins that protrude more than 1mm over the outer flat of the connector, this will damage the female connector.
6	When mating male and female connectors, rotate the hex only on the male connector (keep the male body in a fixed position) slowly to screw on the female connector thread (keep female body in a fixed position).
7	When de-mating, always ensure that the interconnected components remain in a fixed position while rotating <b>only the coupling nut</b> slowly to de-mate the connectors.
8	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. <b>Be sure to apply the alcohol in a circular motion with a lint-free cloth or applicator.</b>
9	Torque the F Type male connectors to 15 in-lbs.
10	Use at room temperature.

Typical Performance Data

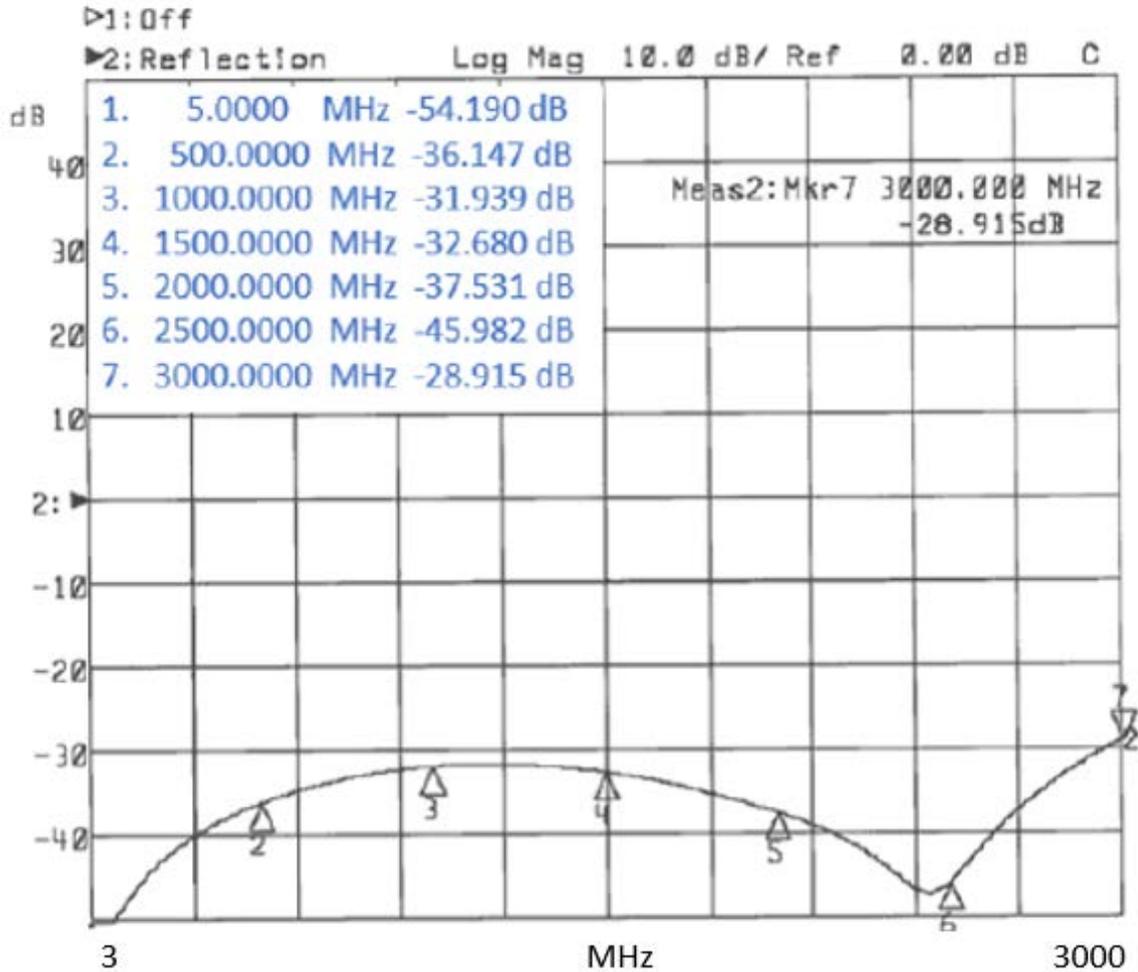
FMMP1003 Matching Pad 50 Ohm N Male to 75 Ohm N Female  
 Insertion Loss



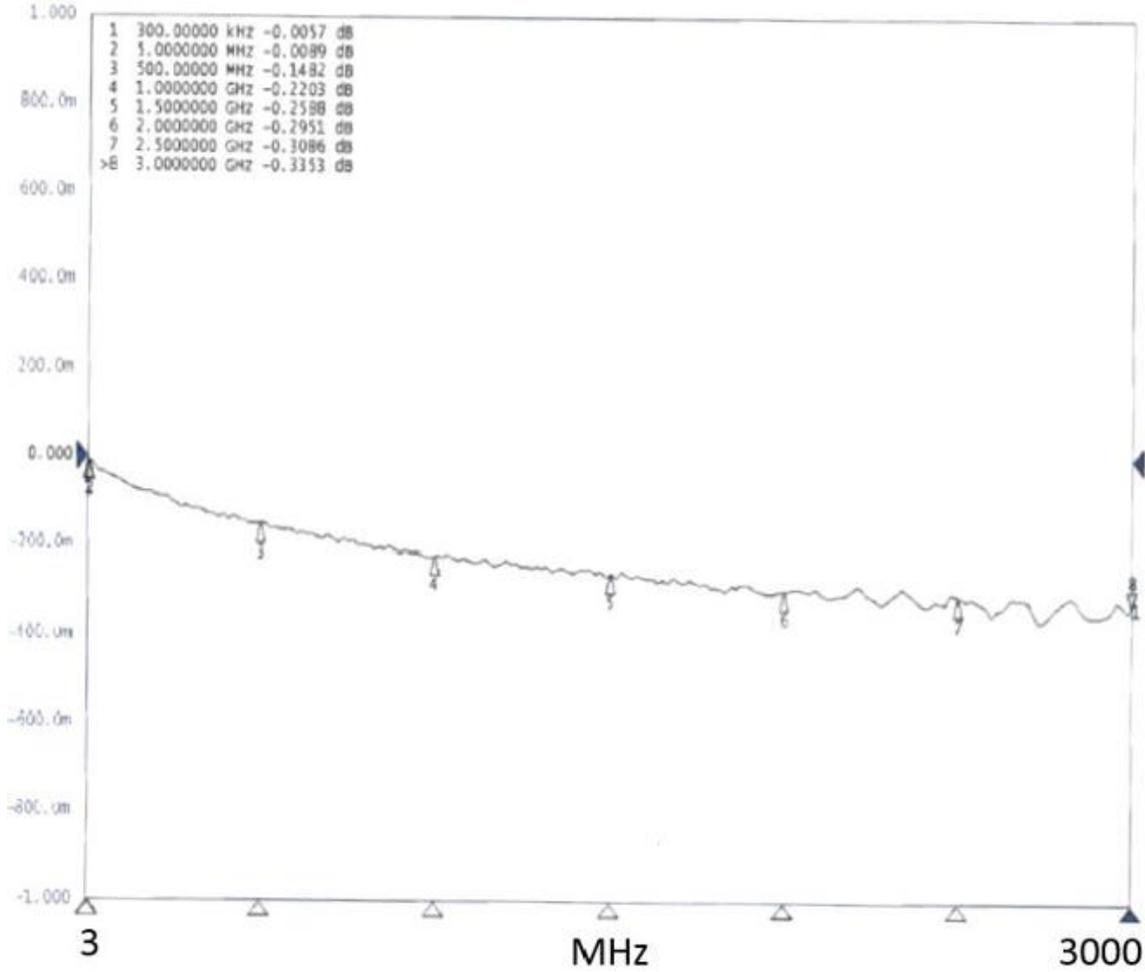
**FMMP1003 50 Ohm Port Return Loss**



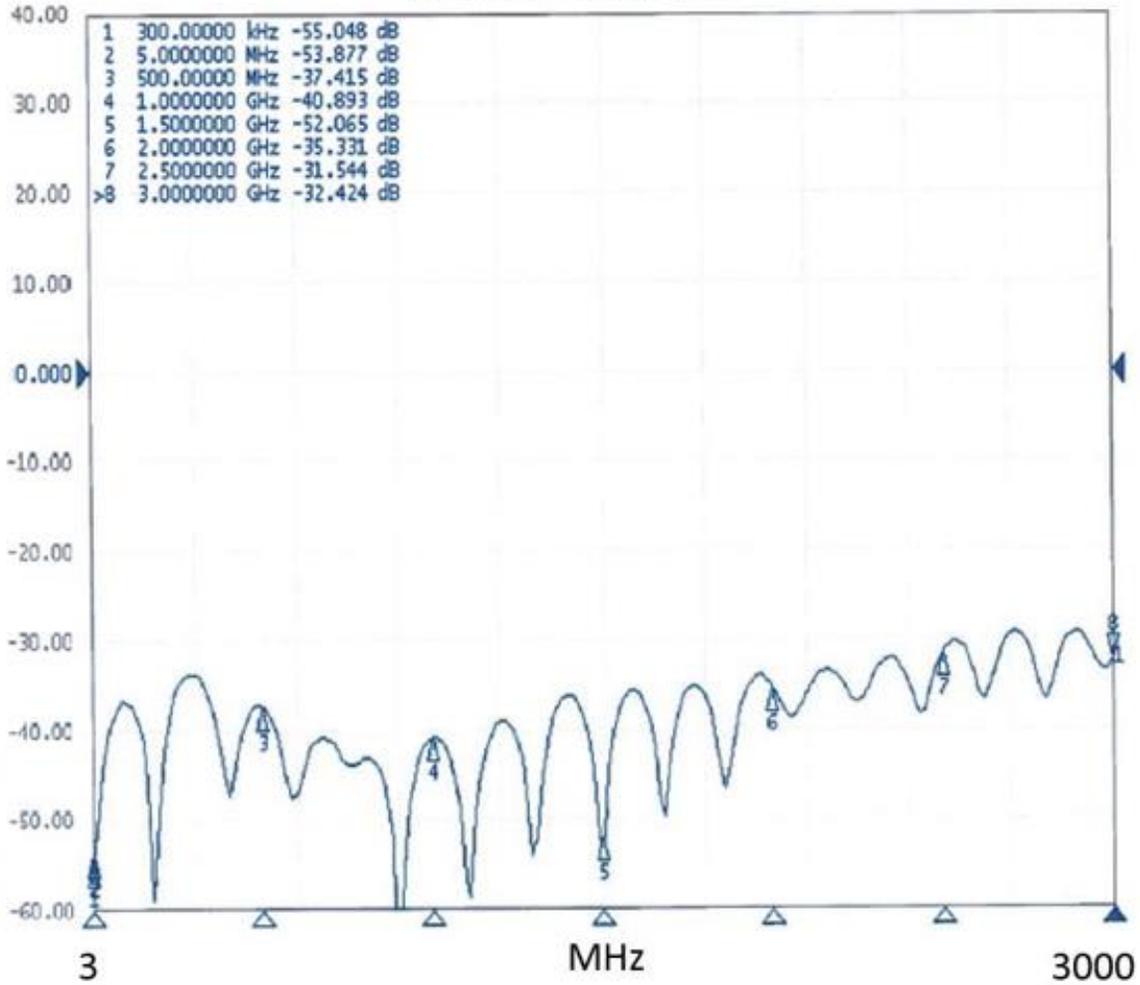
FMMP1003 75 Ohm Port Return Loss



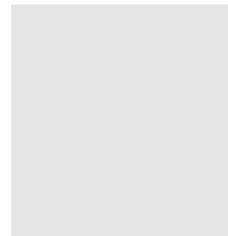
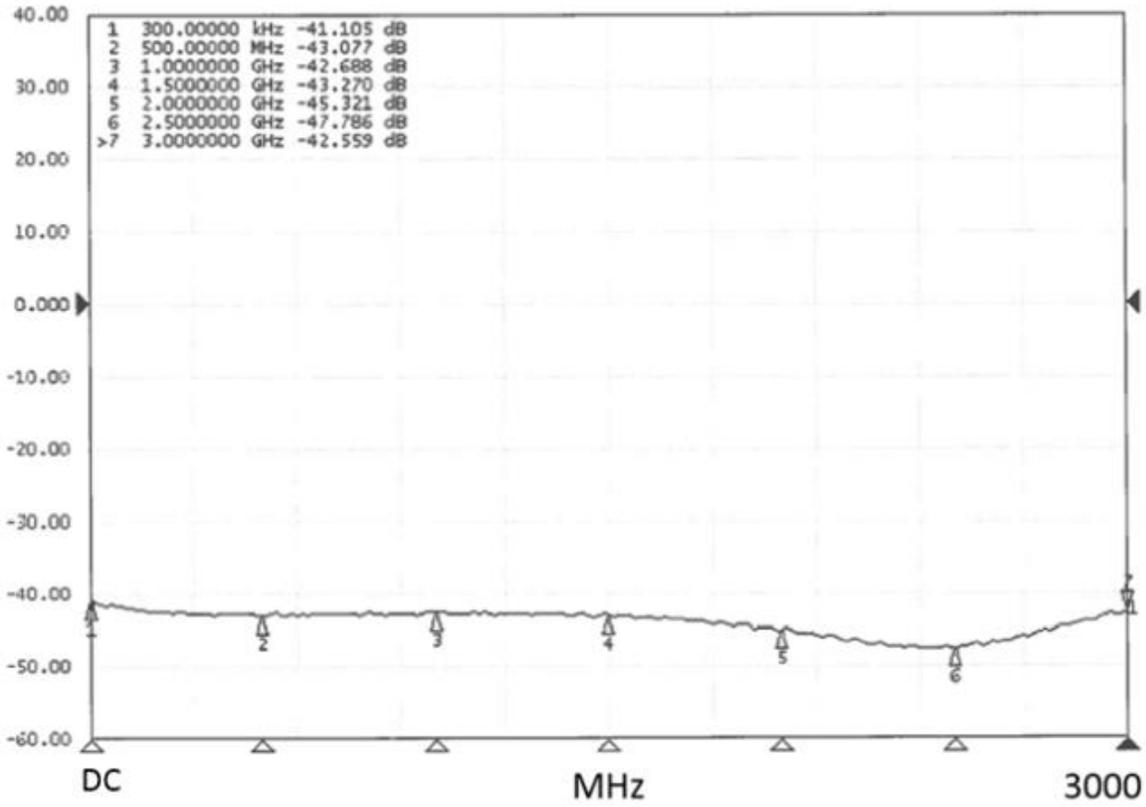
FMCA1031-60CM 75 Ohm N Male to 75 Ohm F Male Armored  
 Test Coax Insertion Loss



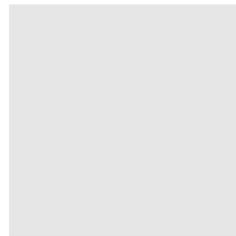
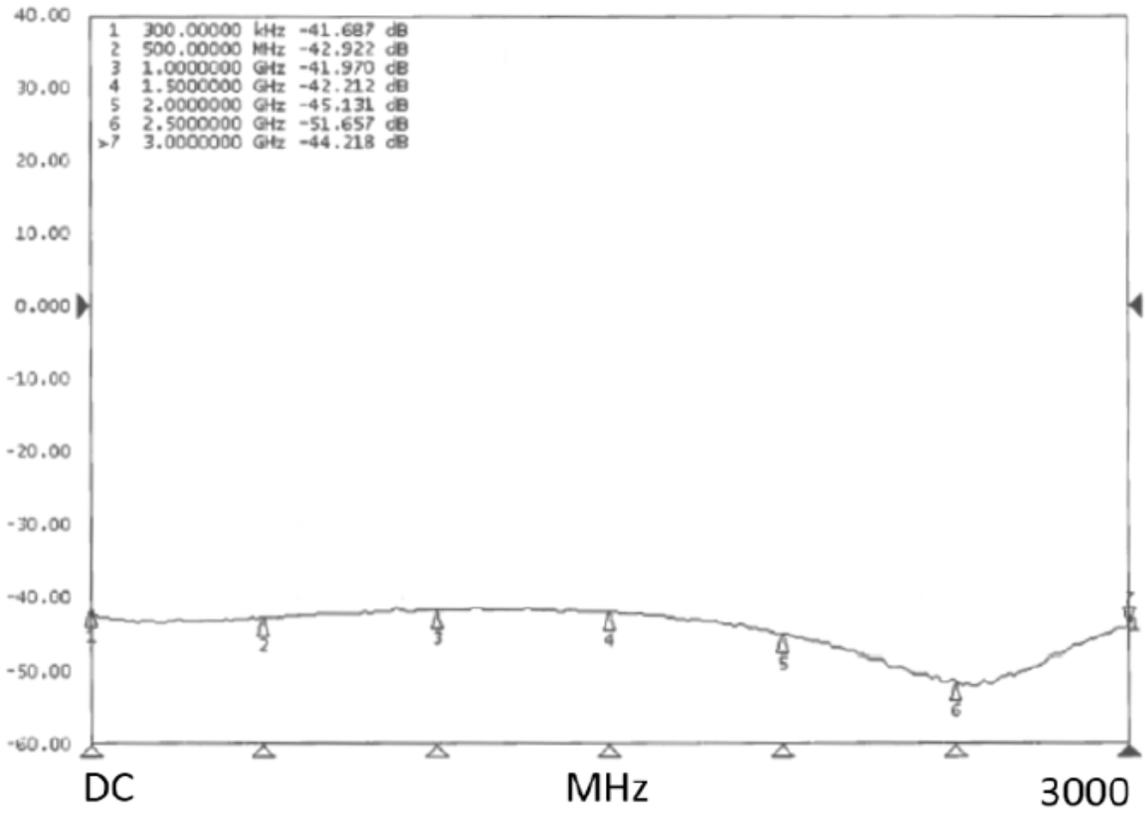
FMCA1031-60CM 75 Ohm N male to 75 Ohm F Male Armored  
 Test Coax Return Loss



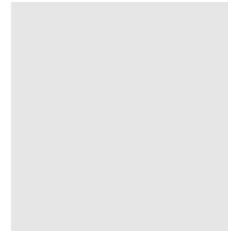
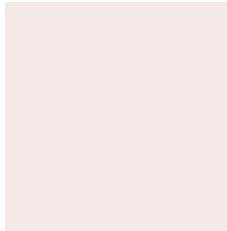
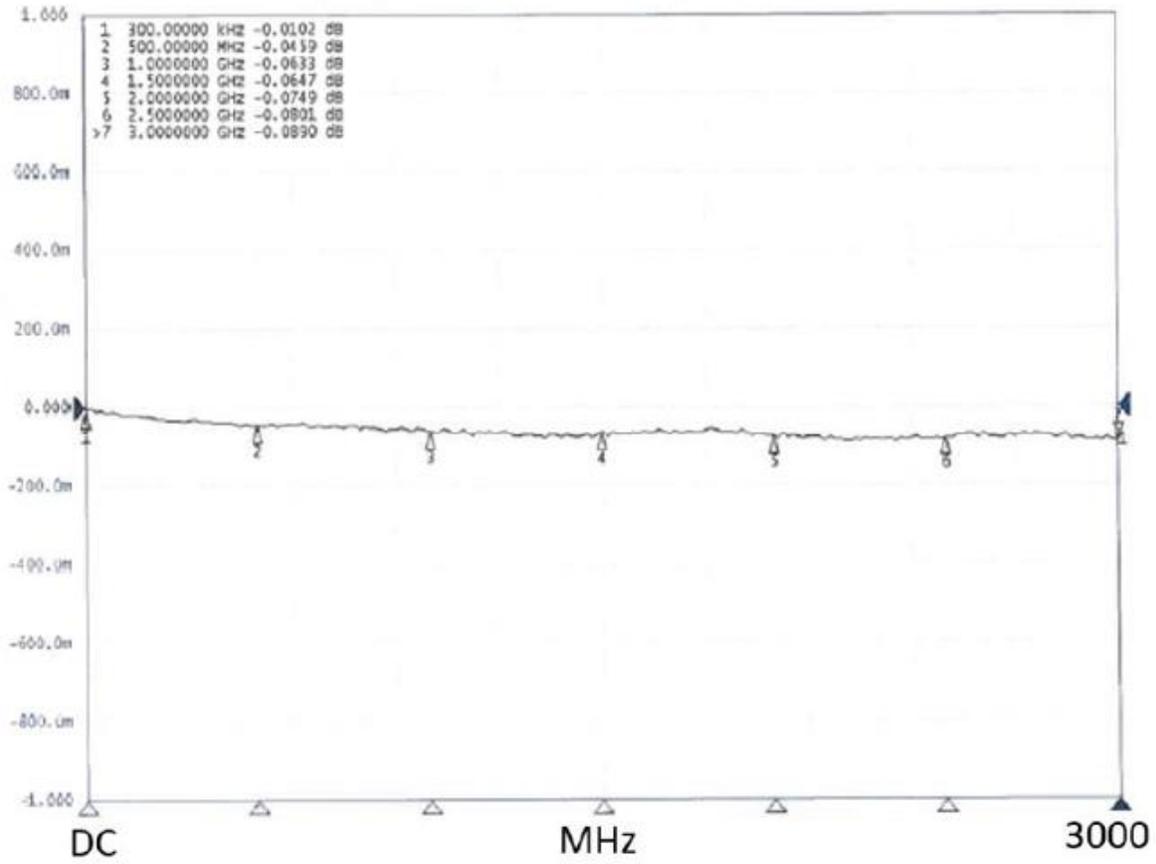
FMTR1004 75 Ohm F Female Load Return Loss



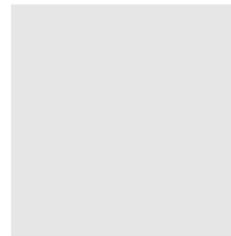
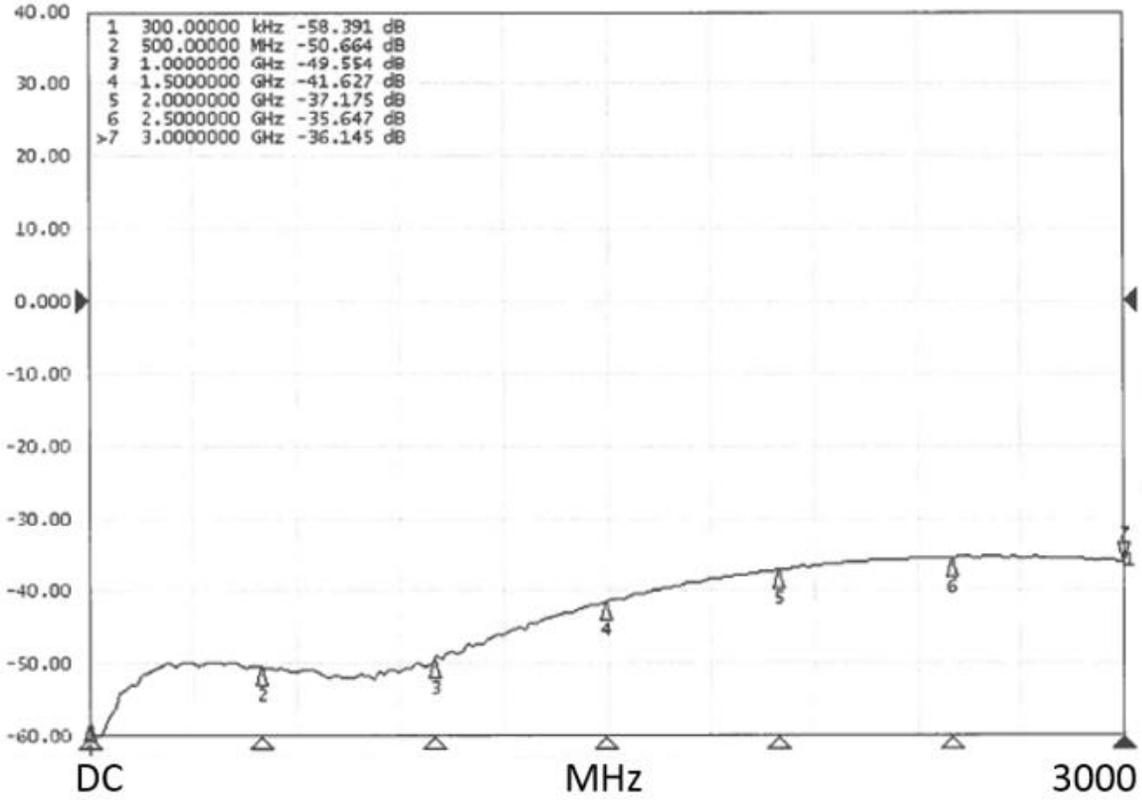
FMTR1005 75 Ohm F Male Load Return Loss



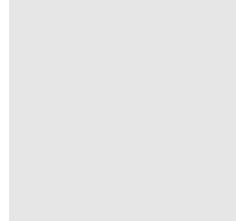
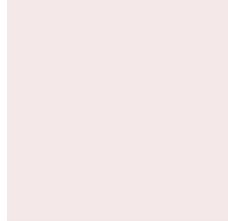
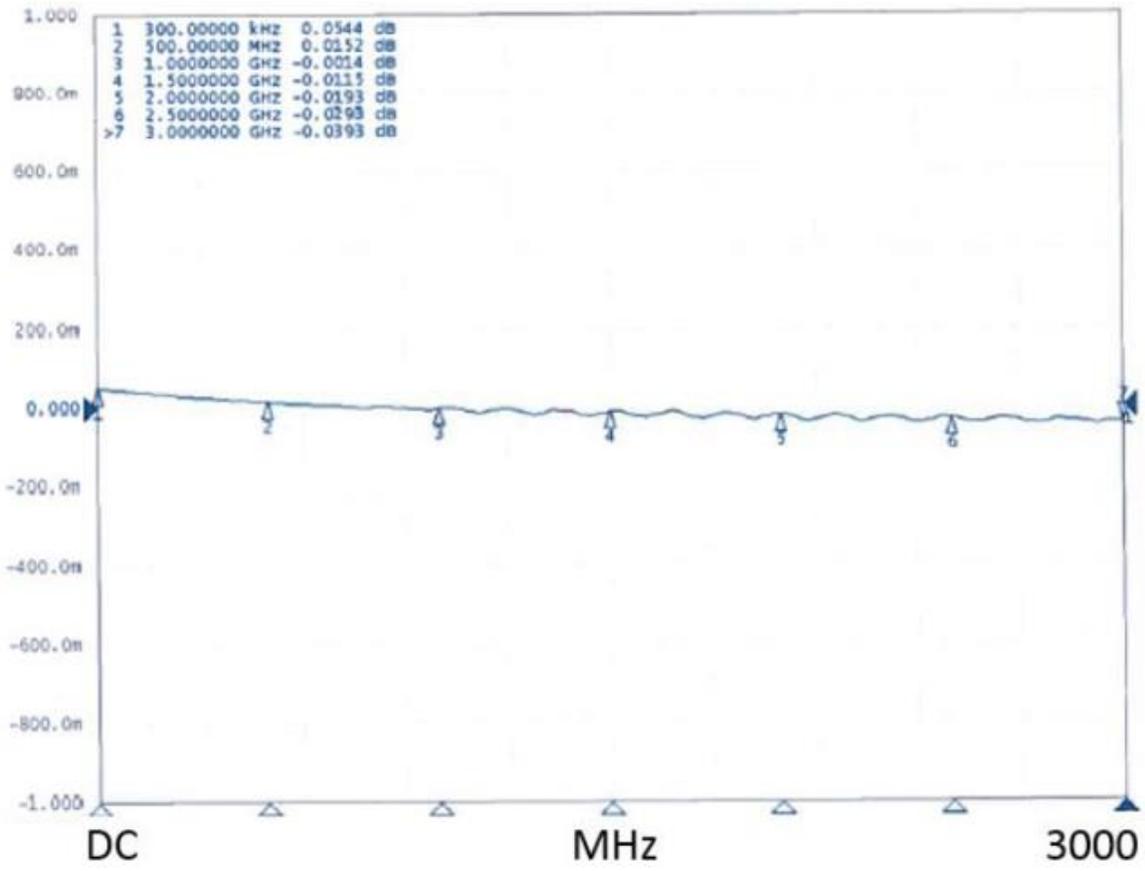
FMSC3005 75 Ohm F Thru Component Insertion Loss



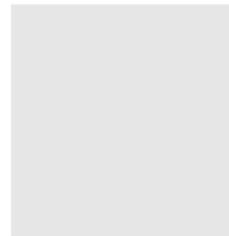
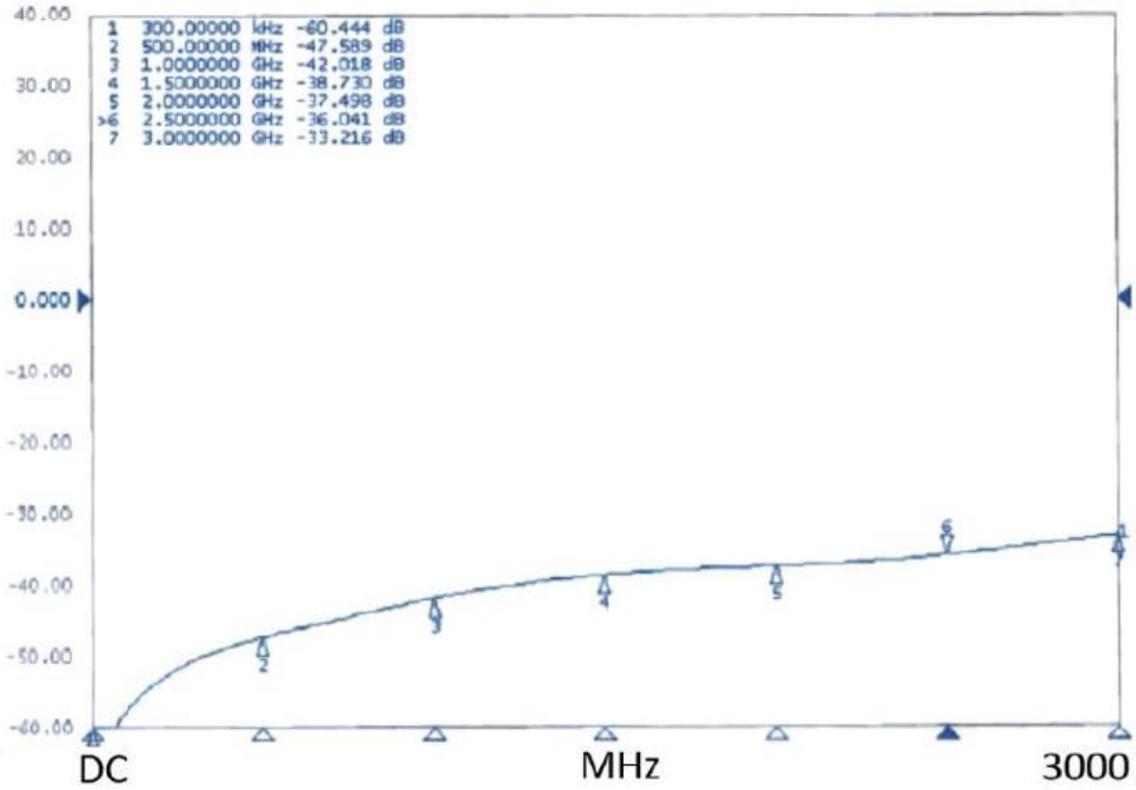
FMSC3005 75 Ohm F Thru Component Return Loss



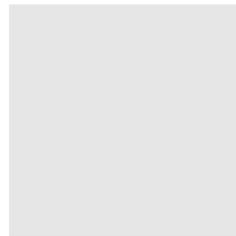
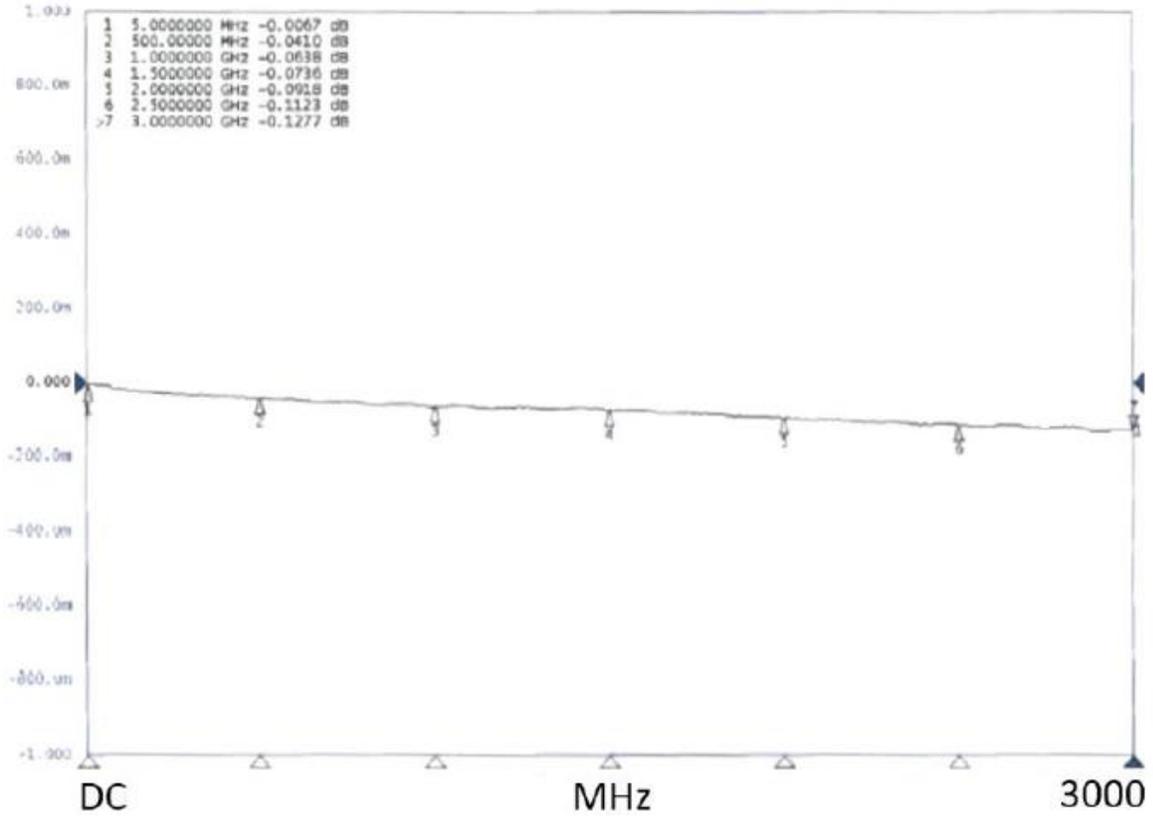
FMAD1066 75 Ohm F Male Adapter Insertion Loss



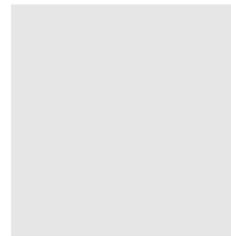
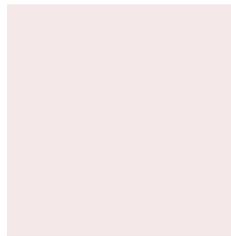
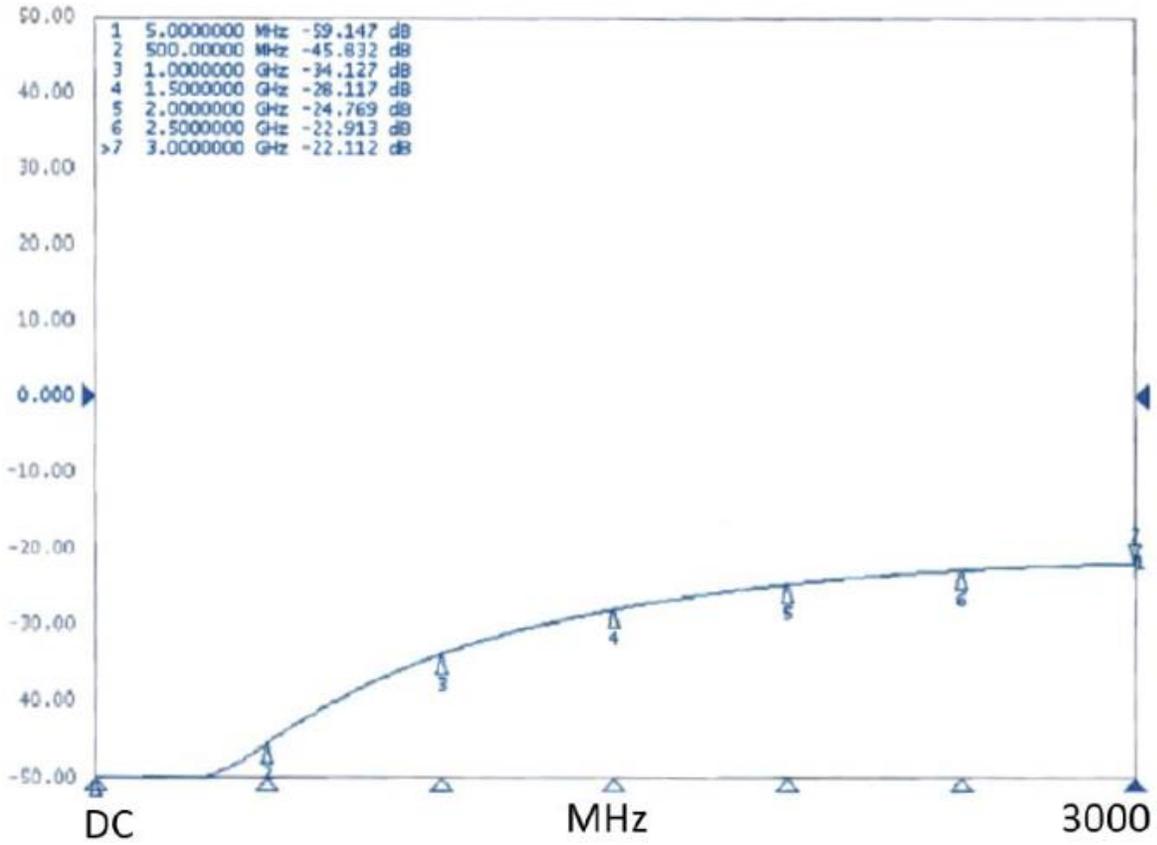
FMAD1066 75 Ohm F Male Adapter Return Loss



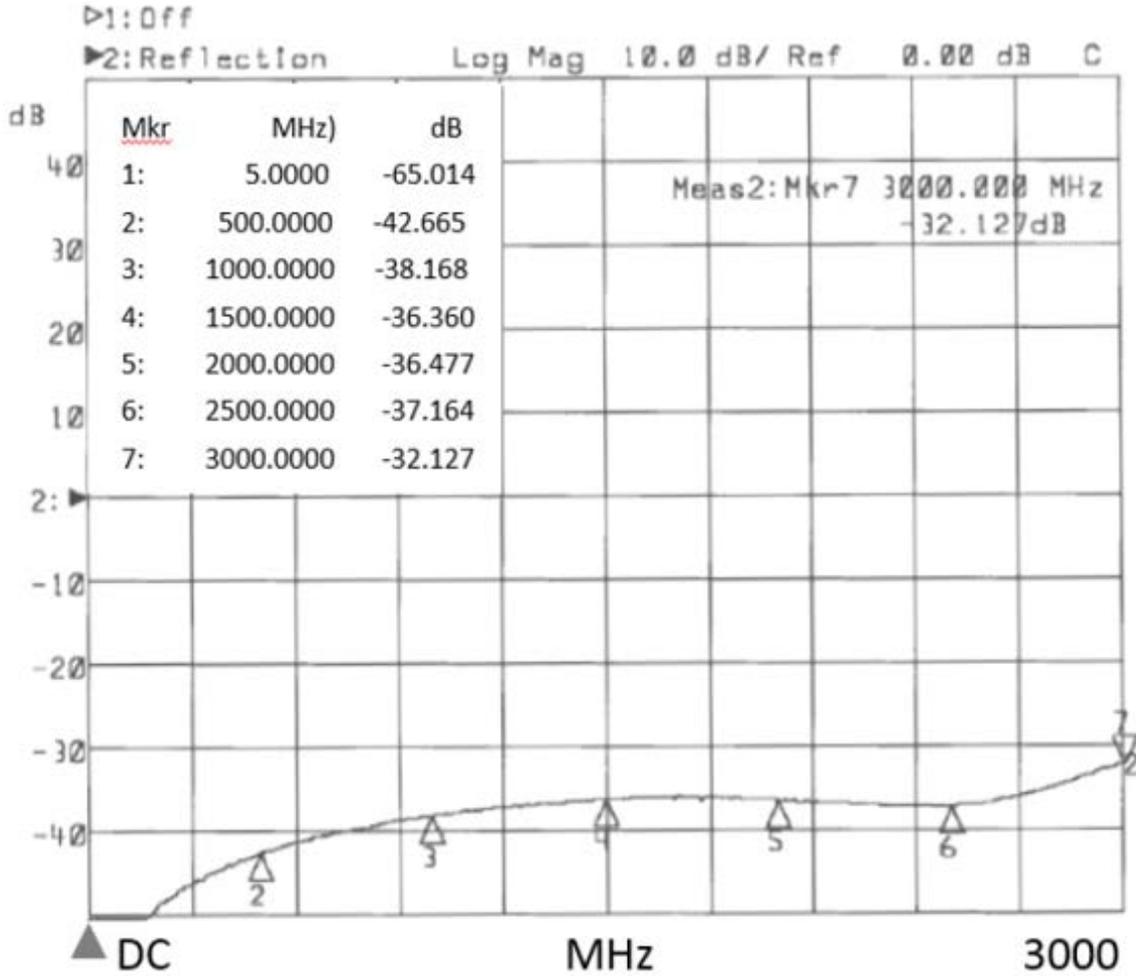
FMAD1065 75 Ohm F Female Adapter Insertion Loss



FMAD1065 75 Ohm F Female Adapter Return Loss



FMTR1014 75 Ohm RF Load F Male Return Loss



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

**Plotted and Other Data**

Notes:

- Values at 25 °C, sea level

Type F 75 Ohm Test and Measurement Kit includes Type N to F Armored Test Cables with SOLT Calibration Components and Precision Accessories 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 Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Type F 75 Ohm Test and Measurement Kit includes Type N to F Armored Test Cables with SOLT Calibration Components and Precision Accessories FMMP5000](#)

URL: <https://www.fairviewmicrowave.com/open-short-load-calibration-kit-type-75-ohm-3-ghz-fmmp5000-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.

