

### CBL-1MFM-75+

### THE BIG DEAL

- RoHS compliant
- Wideband coverage, DC to 3000 MHz
- Extra rugged construction with strain relief for longer life
- Stainless steel F-Male connectors for long mating-cycle life
- Useful over temperature range, -55°C to 105°C
- Triple shield cable for excellent shielding effectiveness
- Flexible for easy connection & bend radius
- 6 month guarantee\*

### **APPLICATIONS**

- High volume production test stations
- Research & development labs
- Environmental & temperature test chambers
- Replacement for OEM test port cables
- Field RF testing



Generic photo used for illustration purposes only

Model No.	CBL-1MFM-75+			
Case Style	ase Style ND1919-3.28			
Connectors	F-Type Male			

+RoHS Compliant The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

Product Guarantee\* Mini-Circuits' will repair or replace your test cable at its option if the connector attachment fails within <u>six</u> months of shipment. This guarantee excludes cable or connector interface damage from misuse or abuse.

### **PRODUCT OVERVIEW**

Mini-Circuits CBL-FM-75+ series  $75\Omega$  test cables provide extra rugged durability and flexibility for easy connections and long life in test environments. These cables support  $75\Omega$  test applications from DC to 3000 MHz and provide outstanding return loss and low insertion loss across their full frequency range with power handling up to 338W. They're performance qualified up to 20,000 flex cycles and feature triple-shielded cable construction with F-type (M) to F-type (M) connectors. Available in a variety of lengths.

F-Type Male

#### **KEY FEATURES**

Feature	Advantages			
Wideband, DC to 3000 MHz	Wide frequency range covers many applications.			
High Power Handling: • 338W @ 0.5 GHz • 98W @ 3 GHz	High power handling makes CBL test cables suitable for applications with a wide range of requirements.			
Excellent Return Loss and Low Insertion Loss	Well matched for $75\Omega$ systems across the entire frequency band.			
Extra rugged, triple shield cable construction	CBL-FM-75+ test cables provide outstanding durability, flexibility, and shielding effectiveness.			
Passivated stainless steel F-Male connectors	Long connector mating cycle life.			
Superior stability of Insertion Loss and Return Loss	Reliable performance in almost any test layout configuration.			

REV. B ECO-022579 CBL-1MFM-75+ MCL NY 240730



# **CBL-1MFM-75+**

1M DC to 3000 MHz F-Type Male

### **ELECTRICAL SPECIFICATIONS AT +25°C**

Parameter	Frequency (MHz)	Min.	Тур.	Max.	Units
Frequency range		DC		3000	MHz
Length <sup>1</sup>		1			М
	DC - 500	-	0.32	0.53	dB
Insertion Loss	500 - 1000	-	0.49	0.69	
	1000 - 2000	_	0.78	0.92	
	2000 - 3000	_	0.89	1.11	
	DC - 500	26	37	_	
Return Loss	500 - 1000	26	32	_	dB
Return Loss	1000 - 2000	24	32	_	uВ
	2000 - 3000	22	24.3	_	

1. Custom sizes available, consult factory.

### **ABSOLUTE MAXIMUM RATINGS**

Parameter	Ratings		
Operating Temperature	-55°C to +105°C		
Storage Temperature	-55°C to +105°C		
	338 W Max. at 0.5 GHz		
Power Handling at +25°C, Sea Level	210 W Max. at 1 GHz		
Power Handling at +25°C, Sea Level	143 W Max. at 2 GHz		
	98 W Max. at 3 GHz		

Permanent damage may occur if any of these limits are exceeded.



## CBL-1MFM-75+

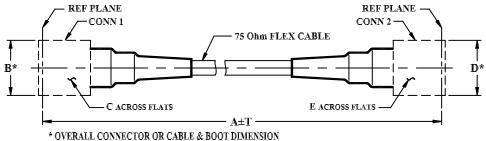
### **CABLE CONSTRUCTION**



### Connectors:

- Passivated stainless steel
- Captive contact
- Thick wall interface (SMA)
- · Gold plated beryllium copper center contacts
- PTFE dielectric

### **OUTLINE DRAWING**



OVERALL CONNECTOR OR CABLE & BOOT DIMENSIO (CONNECTOR SHAPE MAY VARY)

### OUTLINE DIMENSIONS (Inch)

А	В	С	D	Е	т	wt
3.28	.54	.500	.54	.500	.10	grams
1.00	13.72	12.70	13.72	12.70	0.03	125.0

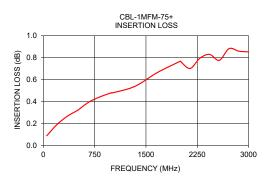


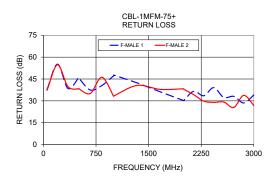


F-Type Male

### **TYPICAL PERFORMANCE DATA**

Frequenc (MHz)	Insertion Loss (dB)	Return Loss (dB)		
		F-Male	F-Male	
50	0.09	37.70	37.20	
200	0.19	55.18	54.77	
500	0.32	45.86	38.18	
667	0.40	37.47	35.00	
834	0.45	40.56	46.23	
1000	0.48	47.16	33.18	
1334	0.54	42.35	40.62	
1667	0.67	36.17	37.88	
2000	0.77	30.21	38.28	
2286	0.79	33.50	29.83	
2429	0.83	39.08	28.97	
2572	0.78	32.33	29.20	
2715	0.88	33.09	25.47	
2857	0.86	28.56	33.82	
3000	0.85	34.02	26.79	





#### NOTES

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document. Α.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html C.

#### www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com PAGE 4 OF 4