Coaxial Cable

MC-3SM+

50Ω 3 inch DC to 18 GHz

Model No.	MC-3SM+
Connectors	SMA-Male to SMA-Male

Description

- Wideband frequency coverage, DC to 18 GHz
- Low Loss, 0.5 dB at 18 GHz
- Excellent Return Loss, 22 dB at 18 GHz
- 6 mm bend radius for tight installations
- Anti-torque nut prevents cable stress during installation.

APPLICATIONS

- Communication receivers and transmitters
- Military and aerospace system
- Environmental and test chambers
- RF systems

PRODUCT OVERVIEW

Micro-Circuits MC- SM+ Series Coaxial Cables are ideal for interconnection of coaxial components or sub-systems . The construction includes a silver-plated copper-clad steel center conductor which maintains the shape after bending. The outer shield is copper braid, tin soaked , which minimizes signal leakage and at the same time flexible for easy bend . Dielectric is low loss PTFE . Connectors have passivated stainless -steel coupling nut over a gold plated connector body and gold plated , brass center conductor.

KEY FEATURES

Features	Advantages
Excellent Return Loss	Typical return loss of 29 dB to 6 GHz and 21 dB to 18 GHz makes the MC- SM+ series ideal for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.
High Power Handling Capability: - 530 W at 0.5 GHz - 80 W at 18 GHz	Micro-Circuits MC- SM+ series cables can support medium to high RF power levels and can be used in the transmit path. (NOTE: power rating at sea-level).
Built-in Anti-torque Nut	Supports the connector bodies during installation, preventing stress to the connector/cable interface.

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ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Length			3		inches
Insertion Loss	DC - 2 2 - 6 6 - 10 10 - 18	— — — —	0.04 0.1 0.20 0.31	0.2 0.32 0.42 0.61	dB
Return Loss	DC - 2 2 - 6 6 - 10 10 - 18	23 23 17 16	49 37 33 37	— — — —	dB

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +105°C
Storage Temperature	-55°C to +105°C
Power Handling at 25°C,Sea Level	530W at 0.5 GHz 372W at 1 GHz 260W at 2 GHz 145W at 6 GHz 115W at 10 GHz 80W at 18 GHz

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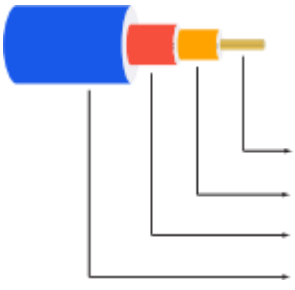
CABLE CONSTRUCTION



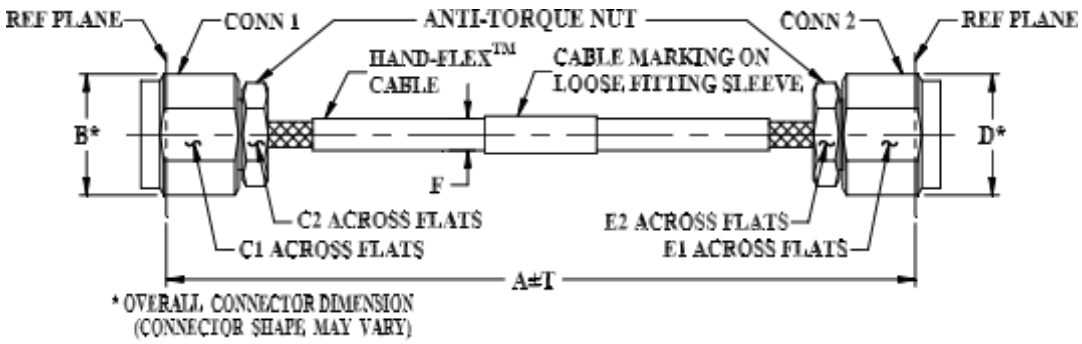
Center Conductor: Silver Plated Copper Clad Steel

Dielectric: Solid PTFE

Outer Shield: Copper Braid, Tin Soaked

Jacket: FEP, Blue (Unjacketed cable also available upon request)

OUTLINE DRAWING



OUTLINE DIMENSIONS (inch/mm)

A	B	C1	C2	D	E1	E2	F	T
3.0	.36	.315	.250	.36	.315	.250	.163±.004	.05
76.20	9.14	8.00	6.35	9.14	8.00	6.35	4.14±0.10	1.27

Micro-Circuits

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