



Coaxial Cable

MC-6SMNB+

50Ω 6 inch DC to 12 GHz

Description

- Wideband frequency coverage, DC to 18 GHz
- Low Loss, 0.44 dB at 12GHz
- Excellent Return Loss, 19 dB at 12 GHz
- 8 mm bend radius for tight installations
- Anti-torque nut prevents cable stress during installation.



Model No.	MC-6SMNB+
Connectors	SMA-Male to N-Female Bulkhead

APPLICATIONS

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

PRODUCT OVERVIEW

Microcircuits MC-SMNB+ series coaxial cables are ideal for integrating rack-mounted coaxial components and sub-assemblies in tight spaces and dense system configurations. N-Type female bulkhead connector at one end is equipped with a nickel-plated brass flange for secure connections to rack mounted equipment. SMA-connector has a passivated stainless steel coupling nut over a gold-plated connector body. The outer shield is tin-soaked copper braid, which minimizes signal leakage with high flexibility for easy bending, and dielectric is low loss PTFE. MC-SMNB+ series coaxial cables are available in various lengths for different system requirements.

KEY FEATURES

Features	Advantages
Excellent Return Loss	Typical return loss of 23 dB to 6 GHz and 19 dB to 12 GHz makes the MC-SMNB+ series ideal for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.
High Power Handling Capability: <ul style="list-style-type: none">• 546 W at 0.5 GHz• 90 W at 12 GHz	Micro-Circuits MC-SMNB+ 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.
SMA-Male / N-Male connectors	Eliminates need for adapter when connecting to SMA-F and N-F connectors, reducing cost and improving reliability.

Micro-Circuits

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ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		12	GHz
Length		6			inches
Insertion Loss	DC - 2	—	0.12	0.28	dB
	2 - 6	—	0.19	0.50	
	6 - 10	—	0.26	0.66	
	10 - 12.5	—	0.32	0.83	
Return Loss	DC - 2	22.0	32	—	dB
	2 - 6	17.0	23	—	
	6 - 10	17.0	21	—	
	10 - 12	17.0	18	—	

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	546W at 0.5 GHz
	387W at 1 GHz
	273W at 2 GHz
	156W at 6 GHz
	121W at 10 GHz
	110W at 12 GHz

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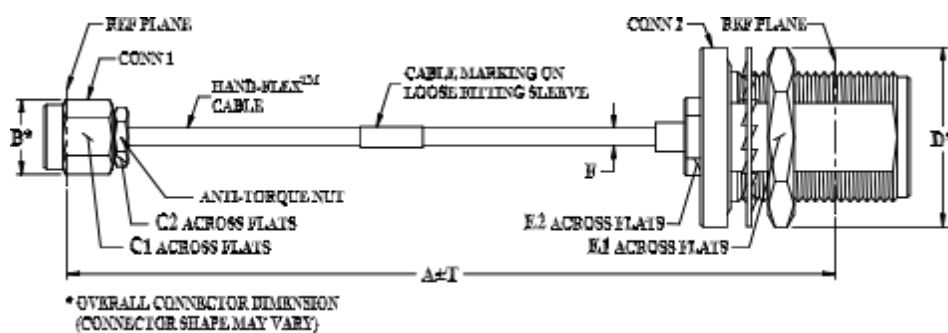
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CABLE CONSTRUCTION



- 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 $\left(\begin{smallmatrix} \text{in} & \text{ch} \\ \text{m} & \text{m} \end{smallmatrix}\right)$

A	B	C1	C2	D	E1	E2	F	T
6.0	.36	.313	.250	.87	.750	.531	.163±.004	.05
152.40	9.14	7.95	6.35	22.10	19.05	13.49	4.14±0.10	1.27

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