



Coaxial Cable

141 SBSMR Model Series

50Ω DC to 18 GHz

The Big Deal

- Hand formable with tight bend radius
- SMA-F bulkhead connector at one end
- Right Angle SMA Male Connector
- Ideal for interconnect of assembled systems



CASE STYLE: KQ1927-XX

XX= cable length in inches

Product Overview

The 141 SBSMR Series Hand-Flex Coaxial Cables are ideal for interconnection of coaxial components or sub-systems to equipment racks. 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. Both connectors have passivated stainless-steel coupling nut. Right Angle SMA-M has a gold plated connector body, brass center conductor and SMA-F has gold plated BeCuB center conductor.

Key Features

Feature	Advantages
Hand-Formable RF Cables	The 141 Series Hand-Flex cables are hand formable making them ideal for use integrating coaxial components and sub-assemblies without the need for special cable-bending tools and alleviating the risk of damage during the bending process typical of semi-rigid coaxial cable assemblies.
SMA-F bulkhead connector at one end	Mounts directly on equipment racks eliminating need for bulkhead adapter, thereby improving reliability.
Tight Bend Radius 8mm	Capable of only 8mm bend radius, the 141 Hand Flex series is able to make connections in tight spaces making these cables ideal for dense system integration.
Excellent Return loss • 36 dB typ. at 6 GHz • 20 dB typ. at 18 GHz	The 141 Series Hand-Flex Cables are ideally suited for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.
Good Power Handling Capability: • 211W at 0.5 GHz • 35W at 18 GHz	141 SBSM coaxial cables can support medium to high RF power levels and can be used in the transmit path. (Power rating at sea-level).
Built in Anti-torque nut on SMA-Male connector	Mini-Circuits 141 Series Hand Flex cables include an anti-torque feature to support the straight SMA connector body during installation alleviating risk of stress to the connector/cable interface
Right angle SMA connectors	Avoids multiple right angle bends and improves reliability.

Notes

- A. 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.
 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.
 C. 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/MCLStore/terms.jsp





Coaxial Cable

50Ω 36 inch DC to 18 GHz

141-36SBSMR+

Maximum 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	
	90W at 18 GHz	

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

Features

- Wideband frequency coverage, DC to 18 GHz
- Low Loss, 2.12 dB typ. at 18 GHz
- Excellent Return Loss, 20 dB typ. at 18 GHz
- SMA-F bulkhead connector at one end
- Hand formable to almost any custom shape without special bending tools
- 8mm bend radius for tight installations
- Anti-torque nut prevents cable stress during installation
- Insulated outer jacket standard
- Connector interface, meets MIL-STD-348
- Ideal for interconnect of assembled systems

Applications

- Bulkhead connector mounts on front panel of equipment racks
- Replacement for custom bent 0.141" semi-rigid cables
- Communication receivers and transmitters
- Military and aerospace system
- Environmental and test chambers

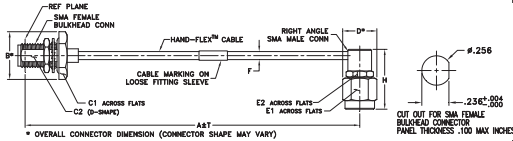


CASE STYLE: KQ1927-36

Connectors	Model
SMA-Female Bulkhead / Right Angle SMA-Male	141-36SBSMR+

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

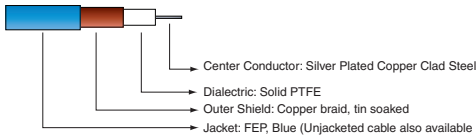
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C1	C2	D	E1
36.0	.51	.438	.232	.36	.313
914.40	12.95	11.13	5.89	9.14	7.95
E2	F	H	T	wt	
.250	.163±.004	.728±.02	.20	grams	
6.35	(4.14±0.10)	18.50±0.5	5.08	47.35	

Cable Construction



SMA-Male Connectors:
Coupling Nut: Stainless Steel Passivated
Body: Stainless Steel Gold Plated
Center Pin: Silver Plated Copper Clad Steel

SMA-F Bulkhead Connectors:
Hex Nut: Stainless Steel, Gold Plated
Body: Stainless Steel, Gold Plated
Socket: BeCu, Gold Plated

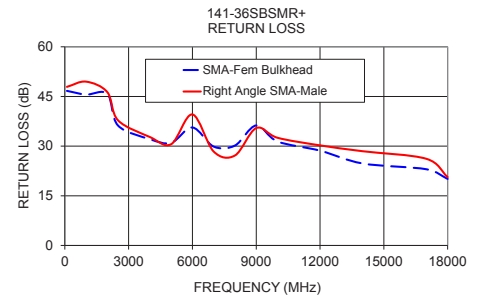
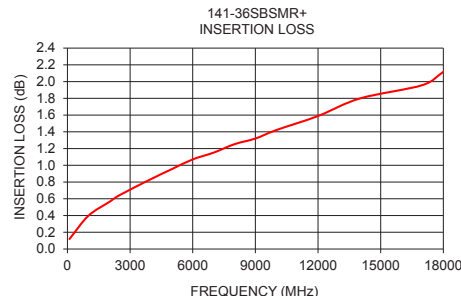
Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC		18	GHz
Length ¹			36		inches
Insertion Loss	DC - 2	—	0.4	0.9	dB
	2 - 6	—	0.7	1.5	
	6 - 10	—	1.2	2.1	
Return Loss	10 - 18	—	1.6	2.9	dB
	DC - 2	23	42	—	
	2 - 6	23	39	—	
	6 - 10	17	34	—	
	10 - 18	17	29	—	

1. Custom sizes available, consult factory.

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		SMA-Female Bulkhead	Right Angle SMA-Male
100	0.12	46.7	47.9
1000	0.40	45.6	49.5
2000	0.56	45.8	46.3
2500	0.64	36.2	37.8
4000	0.84	32.1	32.7
5000	0.95	31.0	30.6
6000	1.07	35.6	39.6
7000	1.15	29.9	28.4
8000	1.25	30.2	27.2
9000	1.32	36.2	35.5
10000	1.42	31.4	32.5
12000	1.59	28.6	30.2
14000	1.80	24.8	28.5
17000	1.96	23.0	26.2
18000	2.12	20.1	20.6



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