HAND FLEX™

Coaxial Cable

141-6BM+

50Ω 6 inch DC to 3 GHz BNC Male

THE BIG DEAL

- Wideband frequency coverage, DC to 3GHz
- Low Insertion Loss, 0.10 dB at 3 GHz
- Hand-Formable to Almost Any Custom Shape Without Special Bending Tools
- 8 mm Bend Radius for Tight Installations
- Insulated Outer Jacket Standard
- Ideal for Interconnect of Assembled Systems

Generic photo used for illustration purposes only

Model No.	141-6BM+
Case Style	KQ2160-6
Connectors	BNC Male

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

APPLICATIONS

- Replacement for Custom Bent 0.141" Semi-Rigid Cables
- Communication Receivers and Transmitters
- Military and Aerospace System
- Environmental and Test Chambers

PRODUCT OVERVIEW

141 BM+ Series Hand-Flex™ Coaxial Cables are ideal for interconnecting coaxial components and sub-assemblies in a wide range of systems, including communications, military and aerospace, environmental test chambers and more. The hand-formable cable provides a minimum bend radius of 8 mm to accommodate tight layouts without the need for bending tools, adapters or brackets. BNC male connectors make these cables ideal for connection of assemblies with BNC connector types. 141 BM+ Series cables are available in a variety of lengths to meet your system needs.

KEY FEATURES

Features	Advantages
Hand-Formable RF Cables	Facilitates the assembly of coaxial systems and sub-systems without the need for special cable bending tools or adapters. Reduces the risk of damage during bending.
Tight Bend Radius, 8 mm	8 mm bend radius makes the cable ideal for connections in tight spaces and crowded layouts.
Low Insertion Loss	Minimizes overall signal path loss.
Excellent Return Loss	Minimizes signal reflection and VSWR ripple contribution.
BNC Male Connectors	Supports easy interconnection of components and equipment in systems with BNC connector types.
High Power Handling Capability: • 546 W at 0.5 GHz • 180 W at 3 GHz	Supports medium to high RF power levels used in transmit paths.

REV. A
ECO-018947
141-6BM+
MCL NY
240416

ELECTRICAL SPECIFICATIONS AT +25 °C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		3	GHz
Length[2]			6		inches
Insertion Loss	DC–3	–	0.10	0.40	dB
Return Loss	DC–3	19	37	–	dB

1. Unjacketed cable also available upon request.
2. Custom sizes available, consult factory.

ABSOLUTE MAXIMUM RATINGS[2]

Parameter	Ratings
Operating Temperature	-55 °C to +105 °C
Storage Temperature	-55 °C to +105 °C
Power Handling at +25 °C, Sea Level	546 W at 0.5 GHz 387 W at 1 GHz 273 W at 2 GHz 180 W at 3 GHz

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

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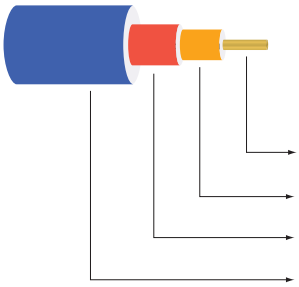
CABLE CONSTRUCTION



Center Conductor: Silver Plated Copper Clad Steel

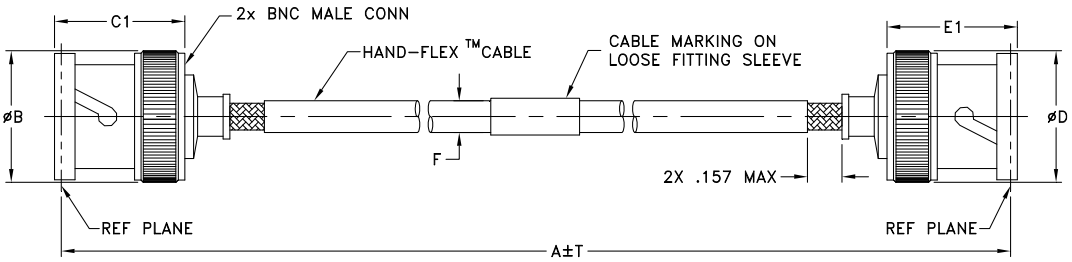
Dielectric: Solid PTFE

Outer Shield: Copper Braid, Tin Soaked

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

Connectors:
Body & Coupling Nut: Brass, Nickel plated
Center Pin: Brass, Gold plated

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A	B	C1	C2	D	E1	E2	F	T	wt
6.0	.57	.59	-	.57	.59	-	.163±.004	.05	grams
152.40	14.48	14.99	-	14.48	14.99	-	4.14±0.10	1.27	27.26

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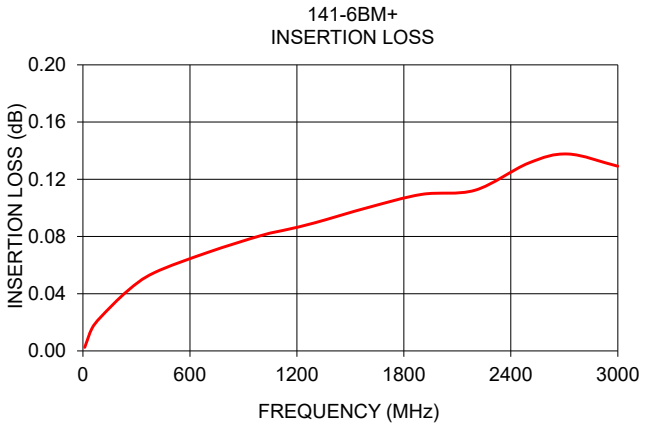
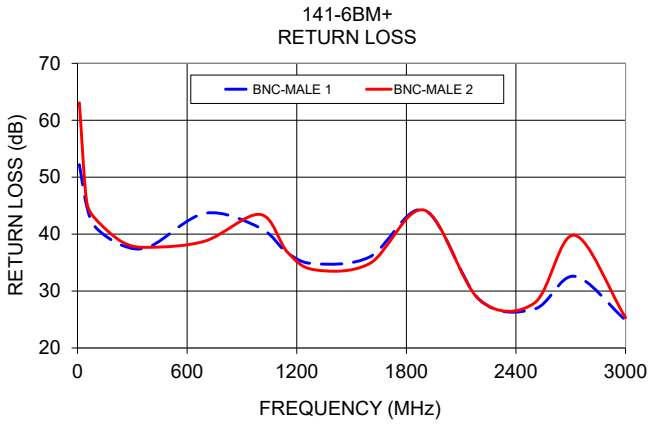
TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		BNC Male	BNC Male
10	0.00	52.20	63.06
50	0.02	44.97	45.72
100	0.02	41.16	42.62
250	0.04	37.95	38.53
400	0.05	37.89	37.68
700	0.07	43.67	38.80
1000	0.08	41.09	43.46
1150	0.08	36.67	36.80
1300	0.09	34.79	33.72
1600	0.10	36.00	34.85
1900	0.11	44.21	44.19
2200	0.11	28.49	28.46
2500	0.13	26.82	27.87
2720	0.14	32.59	39.81
3000	0.13	24.89	25.34





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/terms/viewterm.html

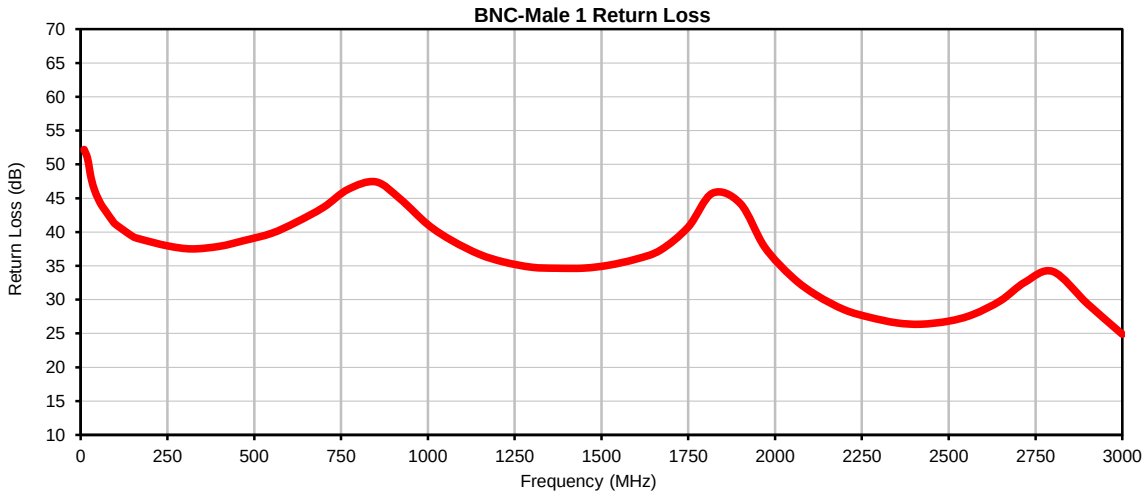
Hand-Flex Coaxial Cable, BNC-M/BNC-M 141-6BM+

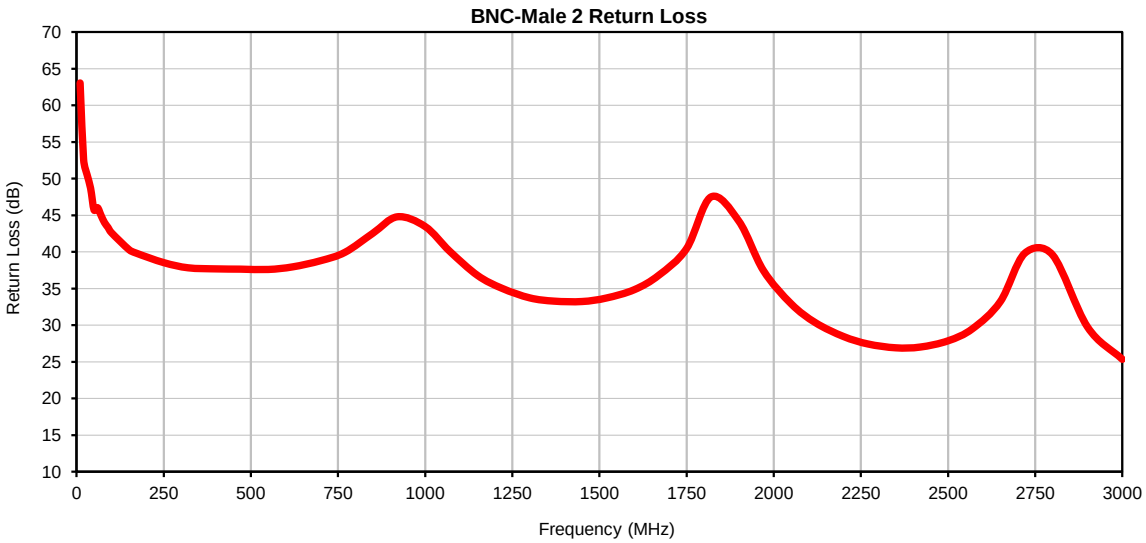
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	BNC-MALE 1 RETURN LOSS (dB)	BNC-MALE 2 RETURN LOSS (dB)
10	0.00	52.20	63.06
20	0.01	50.83	52.62
30	0.01	47.99	50.53
40	0.01	46.19	48.70
50	0.02	44.97	45.72
60	0.02	43.97	46.04
70	0.02	43.24	44.98
80	0.02	42.49	44.00
90	0.02	41.78	43.34
100	0.02	41.16	42.62
150	0.03	39.35	40.32
170	0.03	38.97	39.85
250	0.04	37.95	38.53
320	0.05	37.50	37.83
400	0.05	37.89	37.68
470	0.06	38.73	37.65
550	0.06	39.81	37.60
620	0.06	41.43	37.96
700	0.07	43.67	38.80
770	0.07	46.31	39.95
850	0.07	47.42	42.55
920	0.08	44.91	44.79
1000	0.08	41.09	43.46
1070	0.08	38.71	40.10
1150	0.08	36.67	36.80
1220	0.09	35.55	35.04
1300	0.09	34.79	33.72
1370	0.09	34.65	33.28
1450	0.10	34.67	33.23
1520	0.10	35.08	33.71
1600	0.10	36.00	34.85
1670	0.10	37.33	36.81
1750	0.10	40.74	40.46
1820	0.11	45.75	47.50
1900	0.11	44.21	44.19
1970	0.11	37.77	37.48
2050	0.11	33.30	32.91
2120	0.11	30.63	30.33
2200	0.11	28.49	28.46
2270	0.12	27.42	27.44
2350	0.12	26.56	26.91
2420	0.13	26.37	27.01
2500	0.13	26.82	27.87
2570	0.14	27.81	29.51
2650	0.14	29.87	33.22
2720	0.14	32.59	39.81
2800	0.13	34.16	39.58
2900	0.13	29.37	29.76
3000	0.13	24.89	25.34

Hand-Flex Coaxial Cable, BNC-M/BNC-M 141-6BM+

Typical Performance Curves

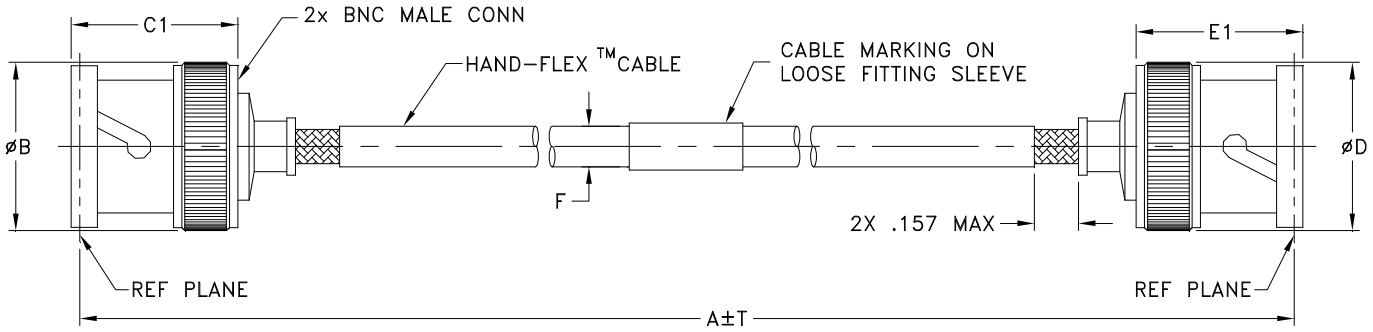




Case Style KQ

KQ2160

Outline Dimensions



KQ2160 SERIES
BNC MALE (CONN-1)
BNC MALE (CONN-2)

CASE STYLE #	A		B	C1	C2	D	E1	E2	F		T		WEIGHT GRAMS
	INCH	MM							141U-ABM+	141-ABM+	INCH	MM	
KQ2160-6	6.00	152.40	.57 (14.5)	.59 (14.9)	- -	.57 (14.5)	.59 (14.9)	- -	.141±.003 (3.58±0.07)	.163±.004 (4.14±0.10)	.05	1.27	27.26
KQ2160-8	8.00	203.20									.10	2.54	29.54
KQ2160-10	10.00	254.00									.10	2.54	31.83
KQ2160-12	12.00	304.80									.10	2.54	34.12
KQ2160-14	14.00	355.60									.15	3.81	36.40
KQ2160-18	18.00	457.20									.15	3.81	40.97
KQ2160-24	24.00	609.60									.15	3.81	47.83

Unless otherwise specified dimensions are in inches (mm).
Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:

1. 141 Hand-Flex™ Coaxial Cable.
2. "A" represents length of cable.

Mini-Circuits®
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Environmental Specifications **ENV52**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 105° C or -55° to 85° C (see datasheet) Ambient Environment	Individual Model Data sheet
Storage Temperature	-55° to 105° C or -55° to 85° C (see data sheet) Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 100 Cycles	MIL-STD-202F; Method 107G
Multiple Bend Radius	40 mm, 5 times for 141 series cables 30 mm, 5 times for 086 series cables	
Single Bend Radius	8 mm for 141 series cables 6 mm for 086 series cables	