HAND FLEX™

Coaxial Cable

141-7NM+

50Ω 7 inch DC to 18 GHz N type-Male

FEATURES

- Wideband frequency coverage, DC to 18 GHz
- Low Loss, 0.45 dB at 18 GHz
- Excellent Return Loss, 18 dB at 18 GHz
- 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[1]
- Ideal for interconnect of assembled systems



Generic photo used for illustration purposes only

Model No.	141-7NM+
Case Style	KQ1637-7
Connectors	N type-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

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	—	18	GHz
Length[2]			7		inches
Insertion Loss	DC - 2	—	0.08	0.32	dB
	2 - 6	—	0.11	0.58	
	6 - 12	—	0.21	0.77	
	12 - 18	—	0.46	1.07	
Return Loss	DC - 2	23	31	—	dB
	2 - 6	23	28	—	
	6 - 12	17	21	—	
	12 - 18	17	18	—	

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

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 90W at 18 GHz

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

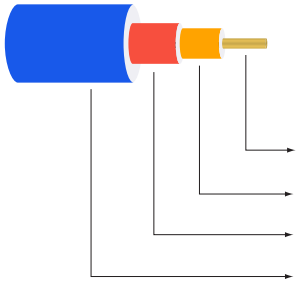
REV. C
ECO-017371
141-7NM+
RK/CP/AM
230307

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CABLE CONSTRUCTION



Center Conductor: Silver Plated Copper Clad Solid Steel

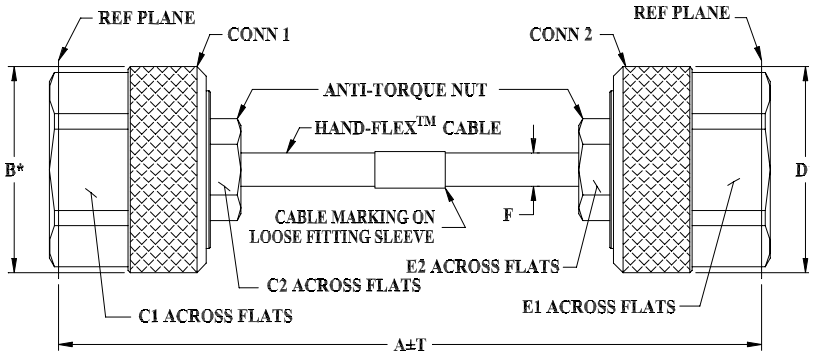
Dialectric: Solid PTFE

Outer Shield: Copper Braid, Tin Soaked

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

Connectors: Coupling Nut: Brass, NIclel Plated
Body: Brass, Nickel Plated
Center Pin: Brass, Gold Plated

OUTLINE DRAWING



* OVERALL CONNECTOR DIMENSION
(CONNECTOR SHAPE MAY VARY)

OUTLINE DIMENSIONS (Inch / mm)

A	B	C1	C2	D
7.00	0.88	0.750	0.375	0.88
177.80	22.352	19.05	9.53	22.35

E1	E2	F	T	wt
0.750	0.375	.163±.004	0.10	grams
19.05	9.53	4.14±0.10	2.54	70

HAND FLEX™

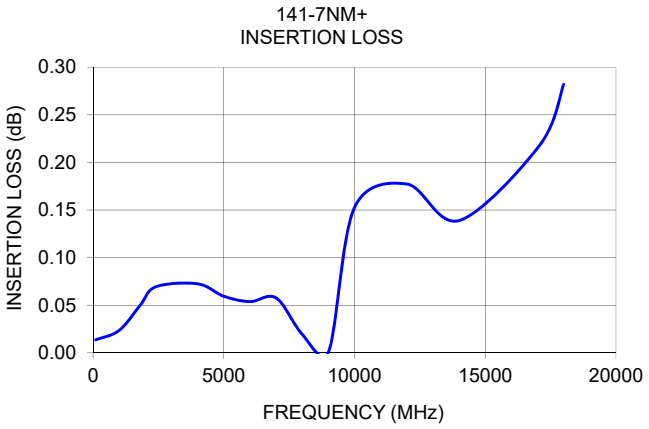
Coaxial Cable

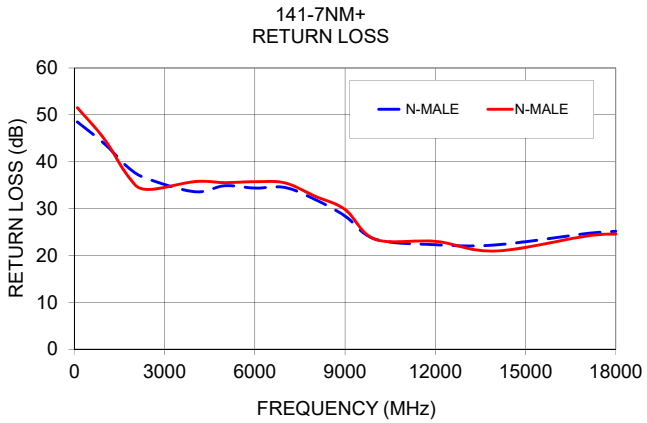
141-7NM+

50Ω 7 inch DC to 18 GHz N type-Male

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		N-Male	N-Male
100	0.01	48.5	51.5
1000	0.02	43.8	44.8
1800	0.05	38.7	36.8
2500	0.13	33.9	33.9
4000	0.16	30.2	30.3
5000	0.18	38.5	42.5
6000	0.05	34.4	35.7
7000	0.21	45.4	51.5
8000	0.23	31.8	32.0
9000	0.25	26.8	26.8
10000	0.15	23.5	23.4
12000	0.30	31.6	32.5
14000	0.32	26.7	26.8
16000	0.35	28.3	27.0
18000	0.28	25.1	24.6





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

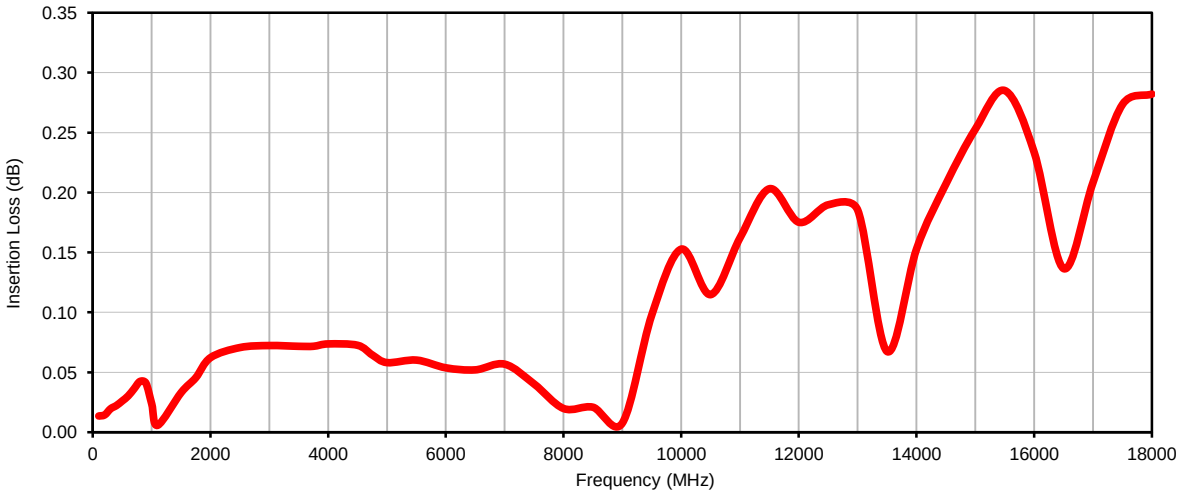
Hand-Flex Coaxial Cable, N-M/N-M 141-7NM+

Typical Performance Data

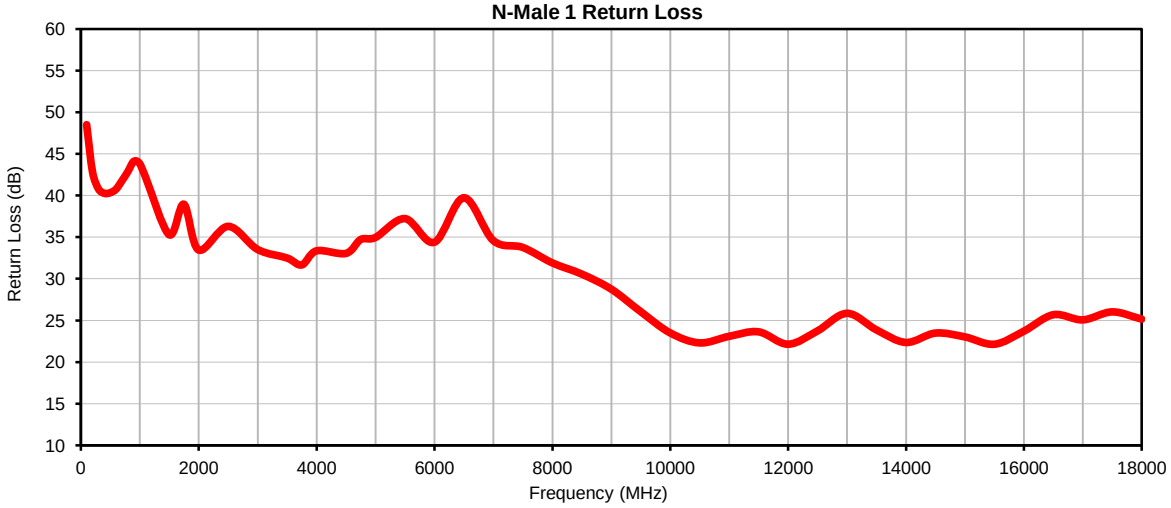
FREQUENCY (MHz)	INSERTION LOSS (dB)	N-MALE 1 RETURN LOSS (dB)	N-MALE 2 RETURN LOSS (dB)
100.0	0.01	48.5	51.5
200.0	0.01	42.8	45.5
300.0	0.02	40.8	42.4
400.0	0.02	40.2	40.8
500.0	0.03	40.3	39.8
600.0	0.03	40.8	39.3
700.0	0.04	41.8	39.7
800.0	0.04	42.9	41.2
900.0	0.04	44.1	42.9
1000.0	0.02	43.8	44.8
1100.0	0.01	42.2	43.0
1500.0	0.03	35.3	33.9
1750.0	0.05	38.9	37.4
2000.0	0.06	33.4	31.6
2500.0	0.07	36.3	34.1
3000.0	0.07	33.5	35.0
3500.0	0.07	32.5	35.9
3750.0	0.07	31.7	34.3
4000.0	0.07	33.3	34.7
4500.0	0.07	33.0	35.0
4750.0	0.06	34.7	34.3
5000.0	0.06	34.9	35.5
5500.0	0.06	37.2	35.9
6000.0	0.05	34.4	35.7
6500.0	0.05	39.7	39.2
7000.0	0.06	34.6	36.1
7500.0	0.04	33.7	34.4
8000.0	0.02	31.9	32.3
8500.0	0.02	30.6	31.0
9000.0	0.01	28.7	29.9
9500.0	0.10	26.0	26.5
10000.0	0.15	23.5	23.4
10500.0	0.11	22.3	22.9
11000.0	0.16	23.1	24.3
11500.0	0.20	23.6	24.9
12000.0	0.18	22.1	23.0
12500.0	0.19	23.7	24.0
13000.0	0.19	25.8	24.2
13500.0	0.07	23.9	21.6
14000.0	0.15	22.3	20.9
14500.0	0.21	23.5	22.4
15000.0	0.25	23.0	22.3
15500.0	0.29	22.1	21.4
16000.0	0.23	23.7	22.4
16500.0	0.14	25.7	24.5
17000.0	0.21	25.1	24.2
17500.0	0.27	26.0	25.3
18000.0	0.28	25.1	24.6

Typical Performance Curves

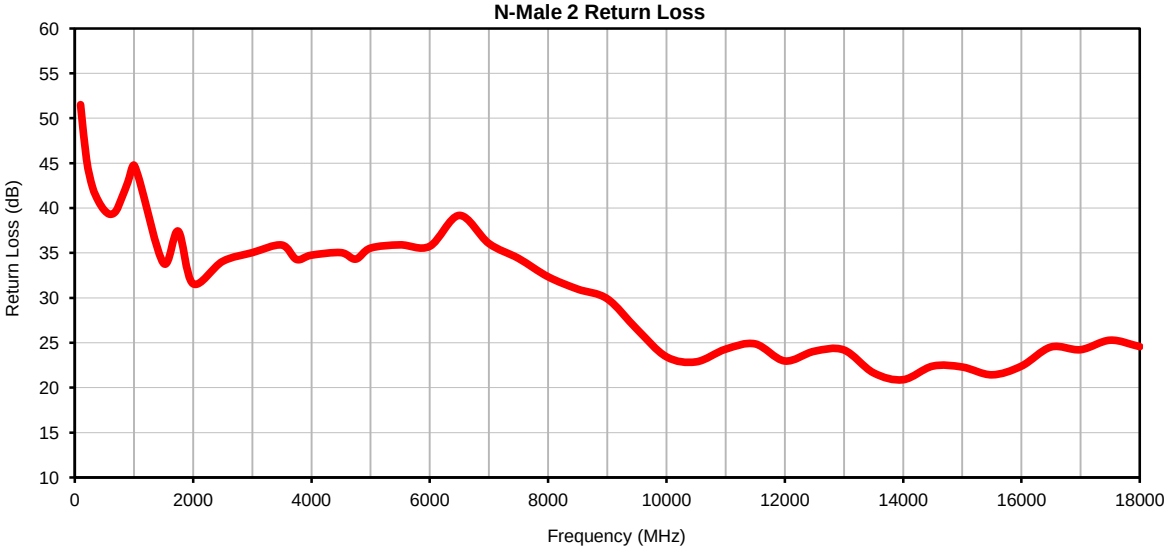
Insertion Loss



N-Male 1 Return Loss



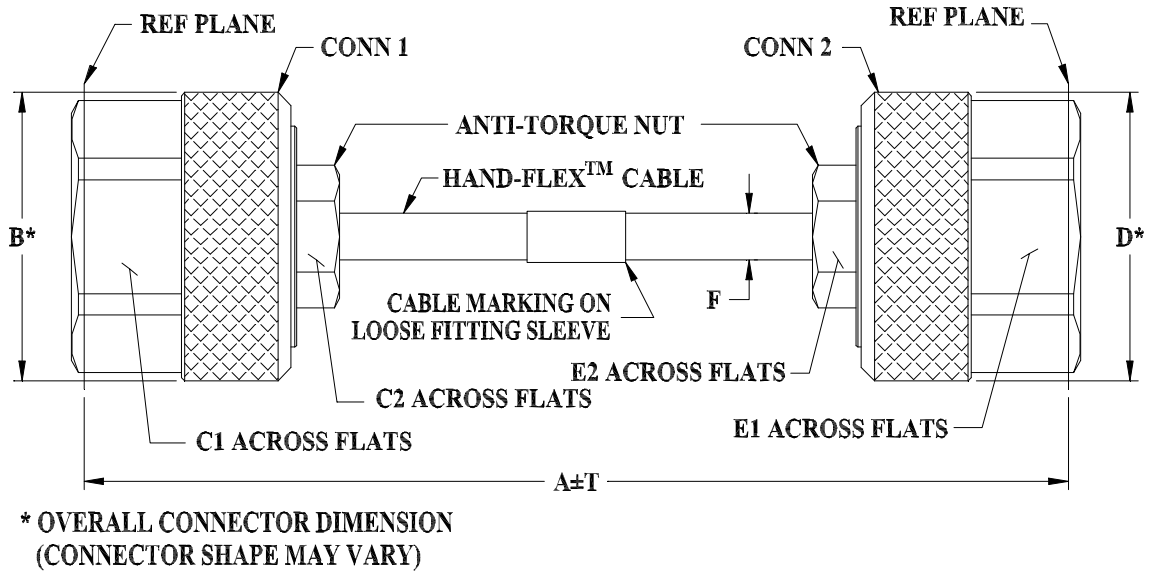
N-Male 2 Return Loss



Case Style KQ

KQ1637

Outline Dimensions



KQ1637 SERIES
N MALE (CONN-1)
N MALE (CONN-2)

CASE STYLE #	A		B	C1	C2	D	E1	E2	F		T		WEIGHT GRAMS
	INCH	MM							141U-ANM+	141-ANM+	INCH	MM	
KQ1637-3	3.00	76.20	.88 (22.35)	.750 (19.05)	.375 (9.53)	.88 (22.35)	.750 (19.05)	.375 (9.53)	.141±.003 (3.58±0.07)	.163±.004 (4.14±0.10)	.05	1.27	65.43
KQ1637-6	6.00	152.40									.05	1.27	68.86
KQ1637-7	7.00	177.80									.10	2.54	70.00
KQ1637-8	8.00	203.20									.10	2.54	71.14
KQ1637-10	10.00	254.00									.10	2.54	73.43
KQ1637-12	12.00	304.80									.10	2.54	75.72
KQ1637-15	15.00	381.00									.15	3.81	79.15
KQ1637-24	24.00	609.60									.15	3.81	89.43
KQ1637-59.1	59.06	1500.00									.40	10.16	129.55

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®
INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010
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Mini-Circuits

Environmental Specifications ENV73

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 Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 105°C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 50 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	

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