



Mini-Circuits®

**HAND
FLEX™**

Coaxial Cable

141-24NM+**50Ω 24 inch DC to 18 GHz N type-Male**

FEATURES

- Wideband frequency coverage, DC to 18 GHz
- Low Loss, 1.32 dB at 18 GHz
- Excellent Return Loss, 29 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 standard¹
- Ideal for interconnect of assembled systems

APPLICATIONS

- Replacement for custom bent 0.141" semi-rigid cables
- Communication Receivers and Transmitters
- Military and Aerospace System
- Environmental and Test Chambers

*Generic photo used for illustration purposes only*

Model No.	141-24NM+
Case Style	KQ1637-24
Connectors	N type-Male

+RoHS Compliant

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

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	—	18	GHz
Length ²		24			inches
Insertion Loss	DC - 2	—	0.20	0.60	dB
	2 - 6	—	0.55	1.10	
	6 - 12	—	0.90	1.48	
	12 - 18	—	1.21	2.11	
Return Loss	DC - 2	23	45	—	dB
	2 - 6	23	36	—	
	6 - 12	17	33	—	
	12 - 18	17	27	—	

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
141-24NM+
RS/CP/AM
230314

Mini-Circuits®
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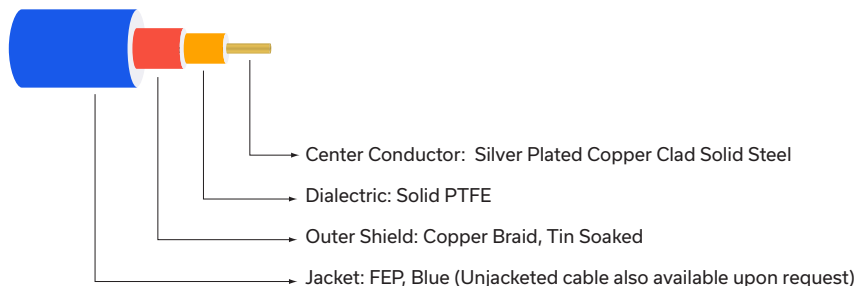
HAND FLEX™

Coaxial Cable

141-24NM+

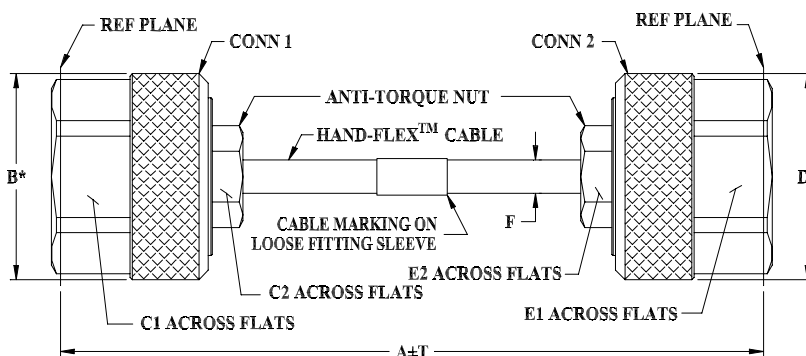
50Ω 24 inch DC to 18 GHz N type-Male

CABLE CONSTRUCTION



Connectors: Coupling Nut: Brass, Nickel 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
24.00	0.88	0.750	0.375	0.88
609.60	22.352	19.05	9.53	22.35
E1	E2	F	T	wt
0.750	0.375	.163±.004	0.15	grams
19.05	9.53	4.14±0.10	3.81	89.43

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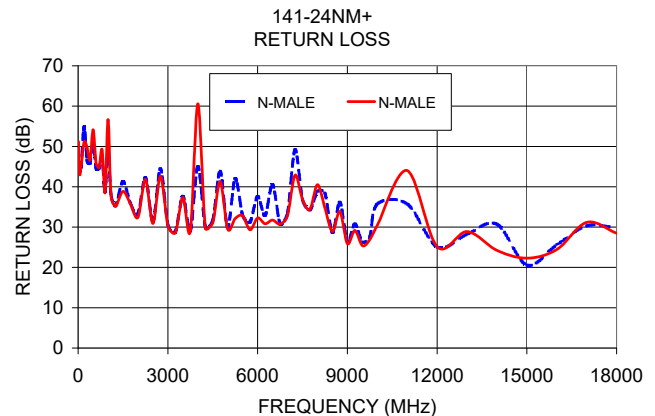
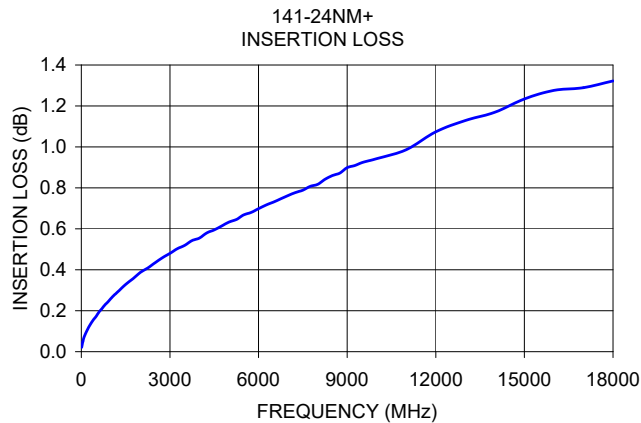
Coaxial Cable

141-24NM+

50Ω 24 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
10.0	0.02	46.81	51.21
1000.0	0.26	48.93	56.67
1500.0	0.33	41.23	38.86
2500.0	0.43	31.36	30.88
4000.0	0.55	45.03	60.57
5000.0	0.63	29.98	29.53
6000.0	0.70	37.57	32.27
7000.0	0.76	33.39	32.87
8000.0	0.82	38.81	40.51
9000.0	0.90	26.42	25.89
10000.0	0.94	35.71	30.46
12000.0	1.07	25.09	25.14
14000.0	1.17	30.73	24.25
16000.0	1.28	25.58	24.43
18000.0	1.32	29.83	28.50



NOTES

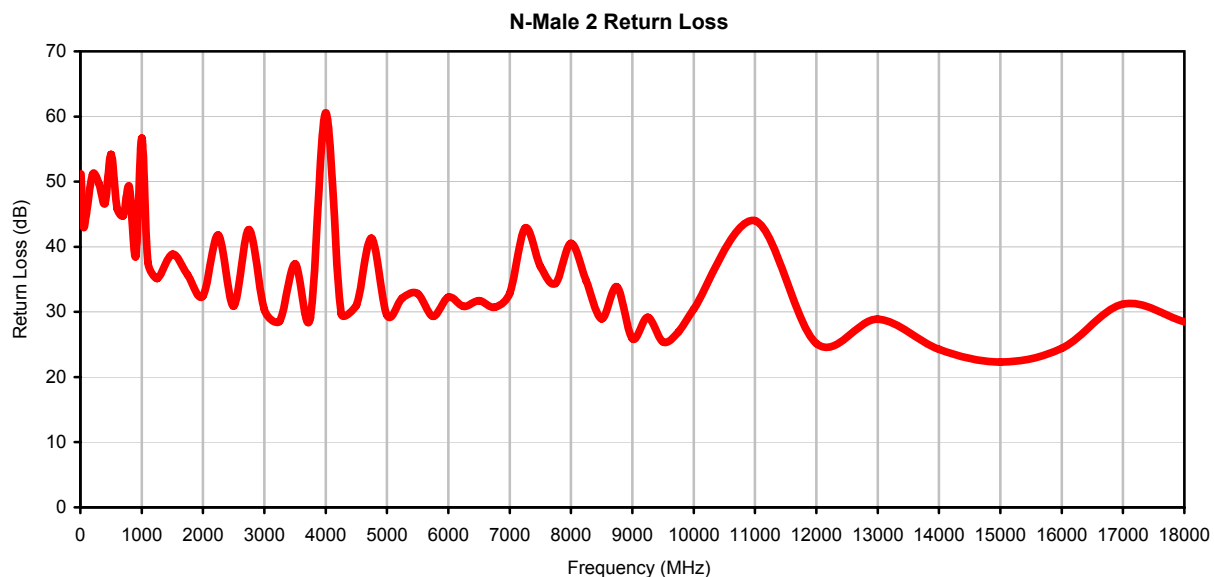
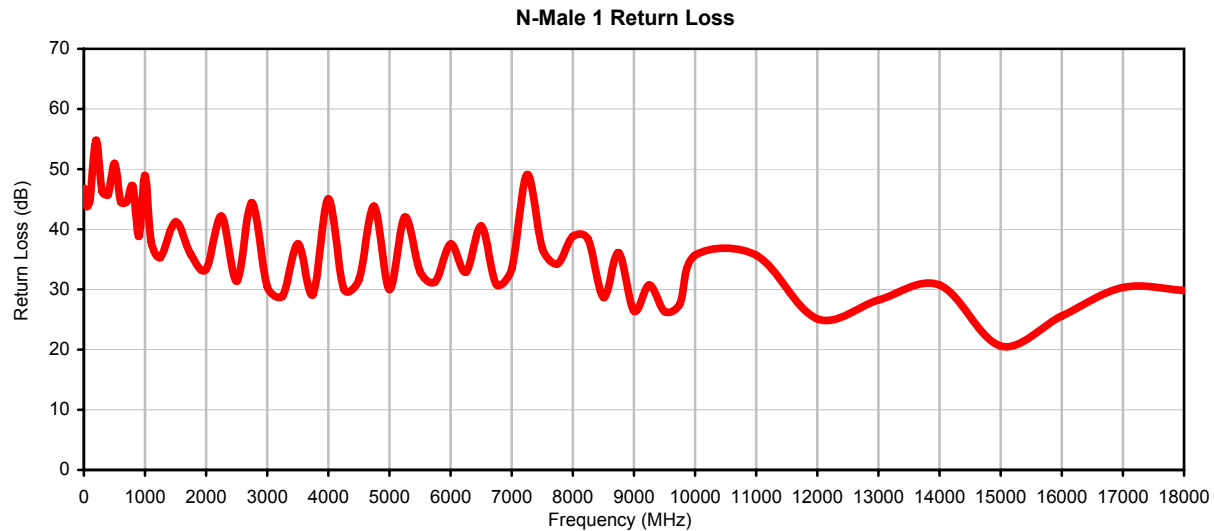
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- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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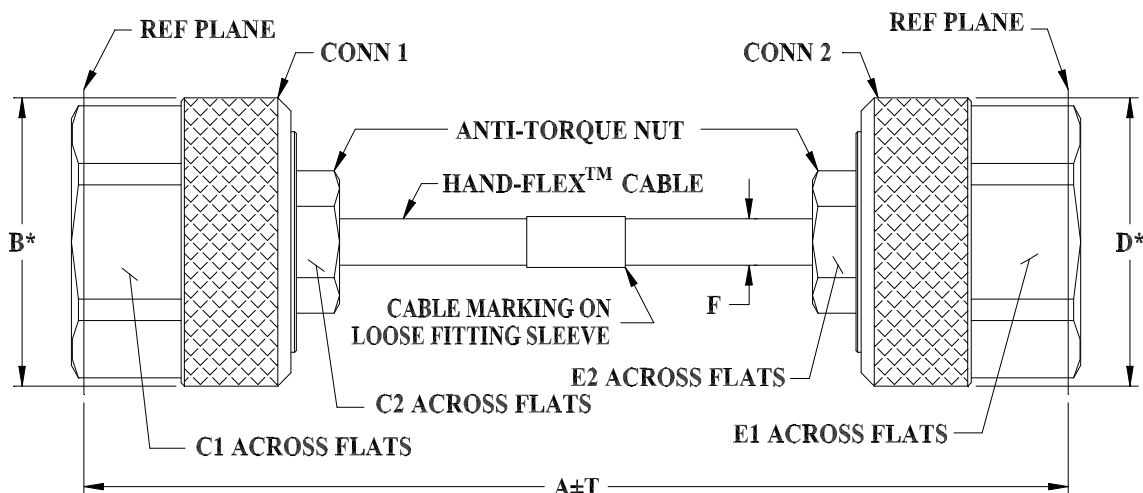
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-MALE 1 RETURN LOSS (dB)	N-MALE 2 RETURN LOSS (dB)
10.0	0.02	46.81	51.21
50.0	0.05	43.76	43.15
100.0	0.07	44.80	45.09
200.0	0.11	54.80	51.07
300.0	0.13	46.35	49.71
400.0	0.15	45.79	46.66
500.0	0.17	50.93	54.17
600.0	0.19	44.58	45.83
700.0	0.21	44.56	44.76
800.0	0.23	47.13	49.22
900.0	0.24	38.84	38.54
1000.0	0.26	48.93	56.67
1100.0	0.27	37.99	37.65
1250.0	0.29	35.31	35.12
1500.0	0.33	41.23	38.86
1750.0	0.36	35.84	35.72
2000.0	0.39	33.37	32.42
2250.0	0.41	42.21	41.82
2500.0	0.43	31.36	30.88
2750.0	0.46	44.43	42.65
3000.0	0.48	30.48	30.35
3250.0	0.50	28.87	28.59
3500.0	0.52	37.62	37.38
3750.0	0.54	29.16	29.09
4000.0	0.55	45.03	60.57
4250.0	0.58	30.09	29.77
4500.0	0.59	31.68	31.05
4750.0	0.61	43.82	41.34
5000.0	0.63	29.98	29.53
5250.0	0.65	42.03	32.12
5500.0	0.67	32.90	32.79
5750.0	0.68	31.29	29.32
6000.0	0.70	37.57	32.27
6250.0	0.72	32.89	30.84
6500.0	0.73	40.54	31.73
6750.0	0.75	30.82	30.72
7000.0	0.76	33.39	32.87
7250.0	0.78	49.12	42.88
7500.0	0.79	36.76	36.92
7750.0	0.81	34.28	34.41
8000.0	0.82	38.81	40.51
8250.0	0.84	38.36	34.74
8500.0	0.86	28.65	28.91
8750.0	0.87	36.13	33.85
9000.0	0.90	26.42	25.89
9250.0	0.91	30.75	29.17
9500.0	0.92	26.30	25.40
9750.0	0.93	27.55	26.90
10000.0	0.94	35.71	30.46
11000.0	0.99	35.71	44.03
12000.0	1.07	25.09	25.14
13000.0	1.13	28.23	28.88
14000.0	1.17	30.73	24.25
15000.0	1.23	20.60	22.30
16000.0	1.28	25.58	24.43
17000.0	1.29	30.32	31.18
18000.0	1.32	29.83	28.50

Typical Performance Curves



Outline Dimensions



* OVERALL CONNECTOR DIMENSION
(CONNECTOR SHAPE MAY VARY)

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 $\pm$.003 (3.58 $\pm$ 0.07)	.163 $\pm$.004 (4.14 $\pm$ 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
KQ1637-18	18.00	457.20									.15	3.81	82.57
KQ1637-24	24.00	609.60									.15	3.81	89.43
KQ1637-30	30.00	762.00									.20	5.08	96.29
KQ1637-59.1	59.06	1500.00									.40	10.16	129.55

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl. $\pm$.03; 3Pl. $\pm$.015

Note:

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



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Mini-Circuits ISO 9001 & ISO 14001 Certified



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	