

**KEY FEATURES**

- Wideband Frequency Coverage DC to 18 GHz
- Low Insertion Loss
- Excellent Return Loss
- 35 mm Bend Radius for Tight Installations
- Insulated Outer Jacket Standard
- Connector Interface Meets MIL-STD-348
- Straight N-Type Male Connector With Coupling Nut

APPLICATIONS

- Communication Receivers and Transmitters
- Telecom Systems
- Test and Measurement Systems
- SATCOM

*Generic photo used for illustration purposes only***PRODUCT OVERVIEW**

The L235-xxNM+ series coaxial cables are ideal for telecom and SATCOM applications and for connecting subsystems. The construction includes a low-loss 0.235-inch coaxial cable with a silver-plated copper center conductor. The dielectric is tape-wrapped PTFE. The connector body is passivated stainless steel, and the contacts are gold-plated BeCu. These cables are available in standard lengths of 0.5, 1, 2, and 3 feet. For custom lengths, please contact Mini-Circuits Sales.

ELECTRICAL SPECIFICATIONS¹

Operating Frequency (GHz)	18
Impedance (Ω)	50
Velocity of Propagation (%)	70
Shielding Effectiveness Min. (dB)	100
Voltage Withstand Max. (VDC)	6600
Return Loss Typ. [VSWR]	32 dB [1.05:1]
Return Loss Max. [VSWR]	18 dB [1.3:1]

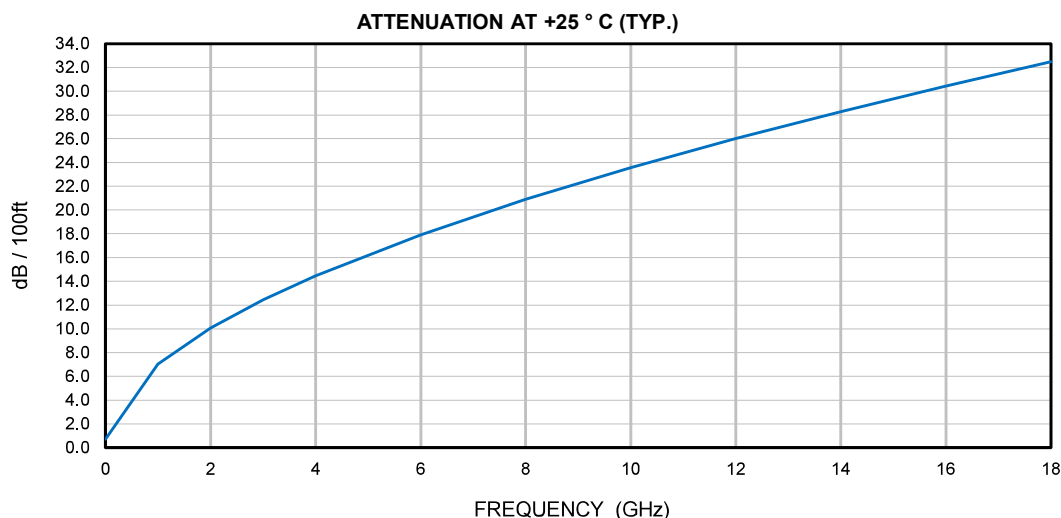
1. Permanent damage may occur if any of these limits are exceeded

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS¹

Operating Case Temperature ²	-45 °C to +125 °C
Storage Temperature	-45 °C to +125 °C
Bend Radius: Installation mm [in]	350.52 [13.8]
Bend Radius: Repeated mm [in]	35.05 [1.38]
Cable Weight (g/m) [lbs/1000ft]	90 [60]

2. Temperature extremes are not intended for continuous normal operation.

3. Total connector weight is 75 g per cable.



Attenuation (Typical @ +25 °C & VSWR = 1.0:1) dB

Frequency (MHz)	1000	2000	4000	6000	8000	10000	12000	14000	16000	18000
dB / 100 m	23.09	33.02	47.43	58.77	68.53	77.27	85.29	92.77	99.82	106.51
dB / 100 ft	7.04	10.07	14.46	17.92	20.90	23.56	26.01	28.29	30.44	32.48

Calculate Max Attenuation⁴ = $[K1 \times \sqrt{FMHz} + K2 \times FMHz] \times 1.1 \text{ dB}$

dB / 100 m	K1 =	0.71070	K2 =	0.00062
dB / 100 ft	K1 =	0.21662	K2 =	0.00019

4. For cable only, include 0.5 dB loss for connectors

Max Power (VSWR = 1.0; +25 °C; Sea Level), W

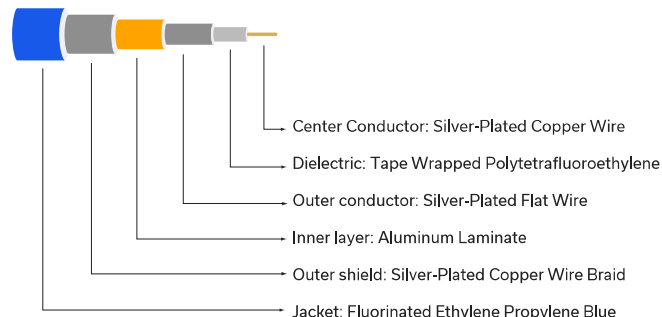
Frequency (MHz)	1000	2000	4000	6000	8000	10000	12000	14000	16000	18000
Avg. Power (W)	971	675	469	379	326	290	263	242	227	213



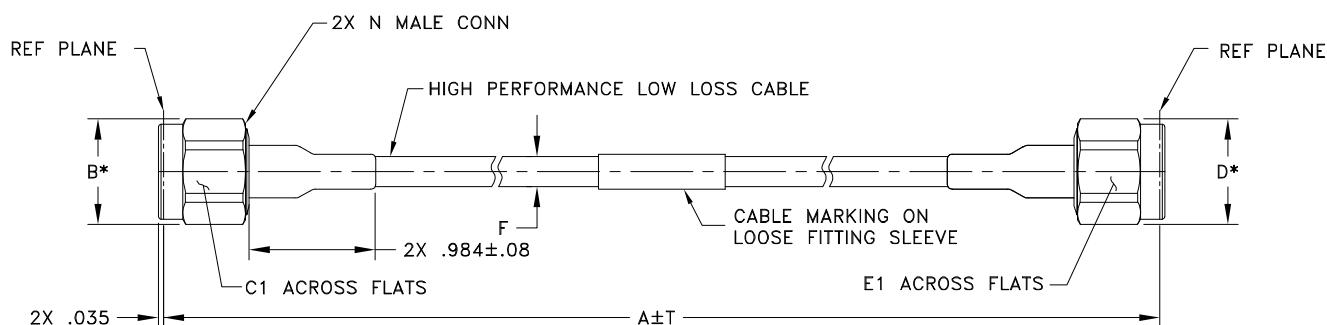
COAXIAL CONNECTIONS

Description	Connector 1	Connector 2
Connector Type	N-Type Male	N-Type Male
Orientation	Straight	Straight
Body Material/ Plating	Stainless Steel/Passivated	Stainless Steel/Passivated
Center Pin Material/ Plating	BeCu/Gold	BeCu/Gold

CABLE CONSTRUCTION



CASE STYLE DRAWING



*OVERALL CONNECTOR DIMENSION
[CONNECTOR SHAPE MAY VARY]

Dimensions are in inches [mm]

A		B	C1	C2	D	E1	F	T		Wt. grams
Feet	Meters							Feet	Meters	
0.5	0.15	.88 [22.35]	.748 [19.00]	.22 [5.6]	.88 [22.35]	.748 [19.00]	.236 [6.00 NOM]	± .008	± .002	99.00
1	0.3							± .010	± .003	114.00
2	0.61							± .013	± .004	144.00
3	0.91							± .025	± .008	174.00

PRODUCT MARKING*: L235-XXNM+

*Marking may contain other features or characters for internal lot control.



Mini-Circuits

LOW LOSS

Coaxial Cables

L235-XXNM+ SERIES

50Ω DC to 18 GHz N-Type Male to N-Type Male

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD [CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	BCA3871
RoHS Status	Compliant
Environmental Ratings	ENV157

NOTES

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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

