LOW LOSS

Coaxial Cables

L235-XXDINM+ SERIES

50Ω DC to 6 GHz DIN Male to DIN Male

KEY FEATURES

- Wideband Frequency Coverage DC to 6 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 DIN Male Connectors with Coupling Nuts



Generic photo used for illustration purposes only

APPLICATIONS

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

PRODUCT OVERVIEW

The L235-xxDINM+ series coaxial cables are ideal for telecom, mobile infrastructure and high-power testing applications. The construction includes a low-loss 0.235-inch coaxial cable with a silver-plated copper center conductor. The connector body is brass/nickel. The contact is 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 SPECIFICATIONS[1]

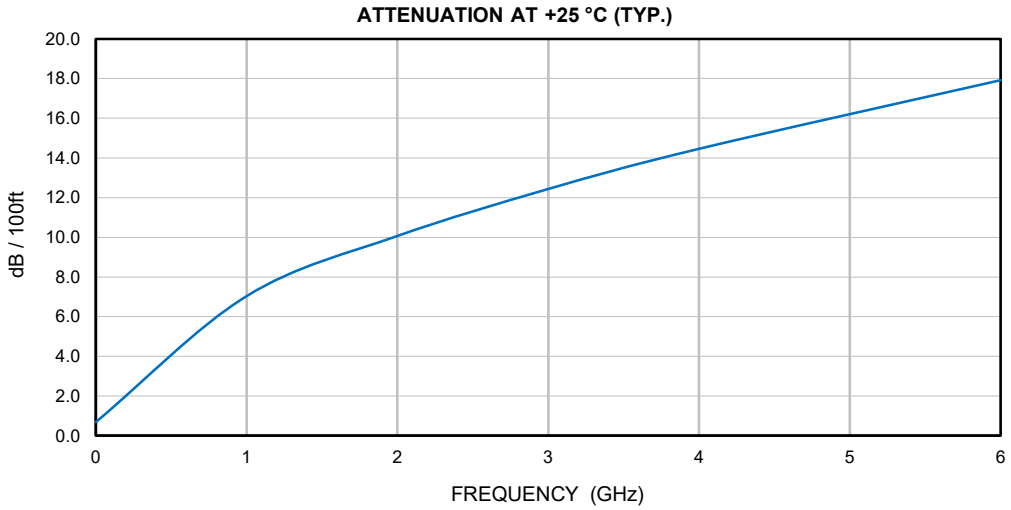
Operating Frequency (GHz)	6
Impedance (Ω)	50
Velocity of Propagation (%)	80
Shielding Effectiveness Min. (dB)	100
Voltage Withstand Max. (VDC)	6600
Return Loss Typ. [VSWR]	33 dB [1.04:1]
Return Loss Max. [VSWR]	18 dB [1.3:1]

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

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS[1]

Operating Case Temperature[2]	-45 °C to +125 °C
Storage Temperature	-45 °C to +125 °C
Bend Radius: Installation mm [in]	35.05 [1.38]
Bend Radius: Repeated mm [in]	350.52 [13.8]
Cable Weight[3] (g/m) [lbs/1000ft]	90 [60.5]

2. Temperature extremes are not intended for continuous normal operation.
3. Total connector weight is 200 g per cable.



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

Frequency (MHz)	1000	2000	3000	4000	6000
dB / 100 m	23.095	33.02	40.79	4.7.43	58.77
dB / 100 ft	7.04	10.07	12.43	14.46	17.92

Calculate Max Attenuation[4] = $[K1 \times \sqrt{FMHz} + K2 \times FMHz] \times 1.1$ 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	3000	4000	6000
Avg. Power (W)	972	675	547	469	380

LOW LOSS

Coaxial Cables

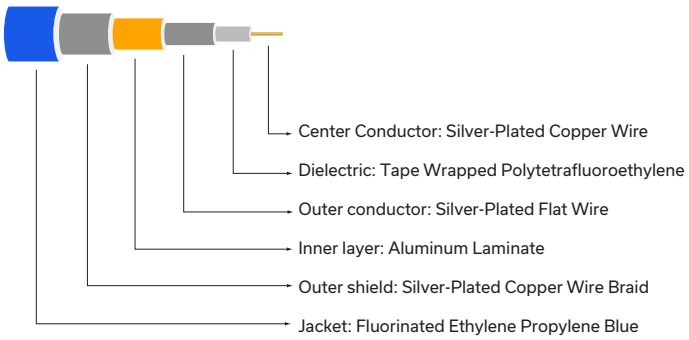
L235-XXDINM+ SERIES

50Ω DC to 6 GHz DIN Male to DIN Male

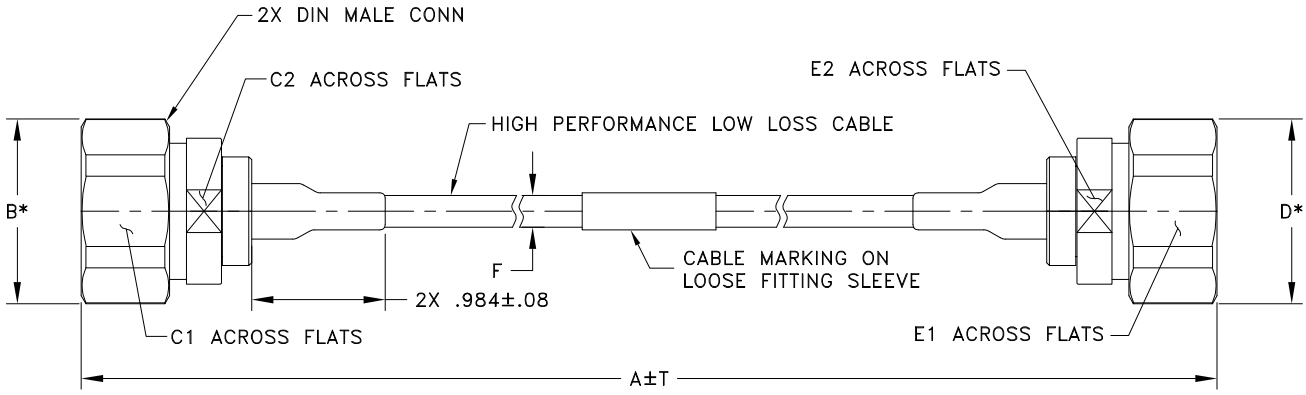
COAXIAL CONNECTIONS

Description	Connector 1	Connector 2
Connector Type	DIN Male	DIN Male
Orientation	Straight	Straight
Body Material/ Plating	Brass/Nickel	Brass/Nickel
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	E2	F	T		Wt. grams
Feet	Meters								Feet	Meters	
0.5	0.15	1.36 [34.59]	1.260 [32.00]	0.945 [24.00]	1.36 [34.59]	1.260 [32.00]	0.945 [24.00]	± .002	± .008	± .002	219.00
1	0.30								± .010	± .003	234.00
2	0.61								± .013	± .004	264.00
3	0.91								± .025	± .008	294.00

PRODUCT MARKING*: L235-XXDINM+

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

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	BCA3872
RoHS Status	Compliant
Environmental Ratings	ENV157

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-Circuits' 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

Low loss DIN Male to DIN Male

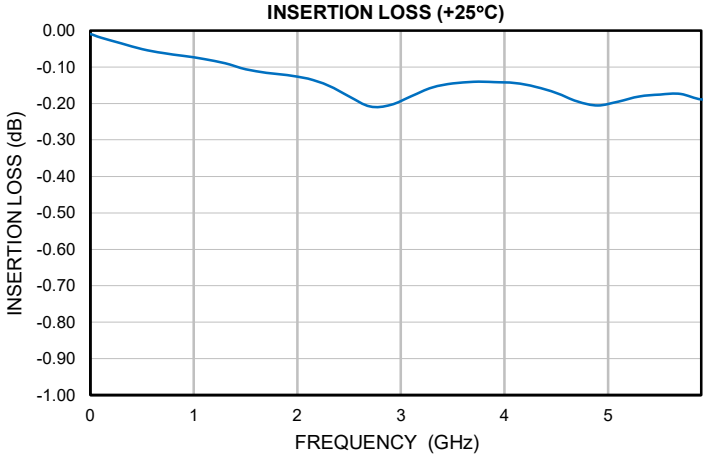
L235-0.5FTDINM+

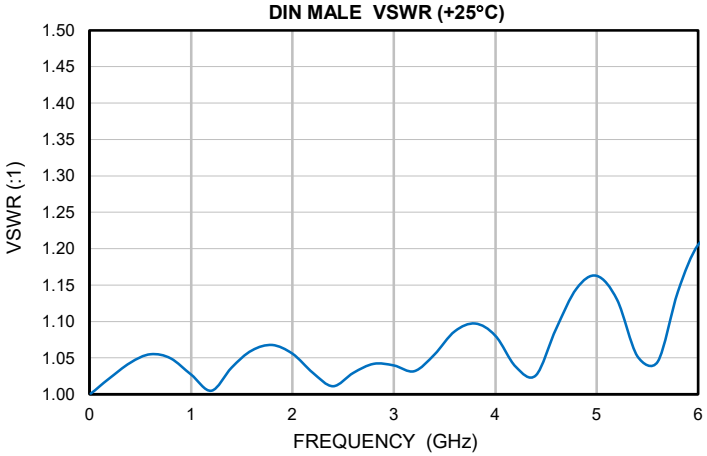
Typical Performance Data

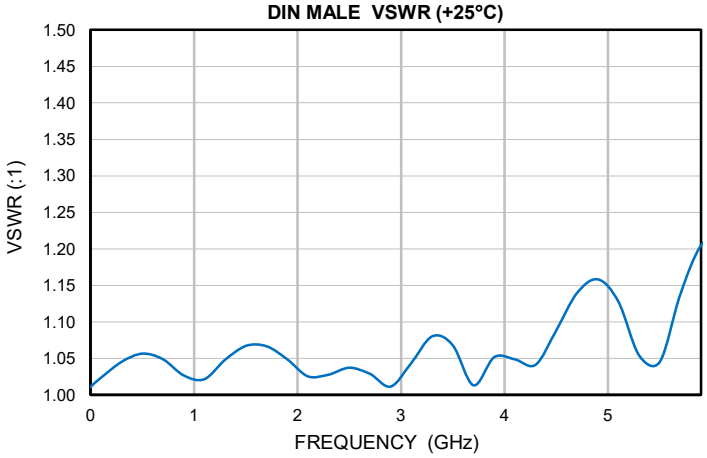
FREQ.	INSERTION LOSS	MALE VSWR	MALE VSWR
(GHz)	(dB)	(:1)	(:1)
0.01	0.00	1.00	1.00
0.10	0.01	1.01	1.01
0.20	0.02	1.02	1.02
0.40	0.03	1.04	1.04
0.60	0.05	1.05	1.05
0.80	0.06	1.05	1.05
1.00	0.07	1.02	1.02
1.20	0.07	1.01	1.02
1.40	0.08	1.04	1.05
1.60	0.10	1.06	1.07
1.80	0.11	1.07	1.07
2.00	0.11	1.06	1.05
2.20	0.12	1.03	1.02
2.40	0.14	1.02	1.03
2.60	0.16	1.04	1.05
2.80	0.19	1.06	1.04
3.00	0.22	1.05	1.02
3.20	0.24	1.03	1.05
3.40	0.25	1.03	1.06
3.60	0.22	1.06	1.05
3.80	0.18	1.08	1.05
4.00	0.16	1.07	1.05
4.20	0.14	1.03	1.03
4.40	0.14	1.03	1.03
4.60	0.14	1.09	1.09
4.80	0.16	1.14	1.14
5.00	0.16	1.16	1.15
5.20	0.16	1.13	1.13
5.40	0.15	1.07	1.07
5.60	0.15	1.03	1.02
5.80	0.16	1.12	1.11
6.00	0.18	1.20	1.20
6.20	0.18	1.22	1.22
6.40	0.16	1.17	1.18
6.60	0.14	1.08	1.08
6.80	0.13	1.03	1.03
7.00	0.14	1.12	1.12

Low loss DIN Male to DIN Male L235-0.5FTDINM+

Typical Performance Curves



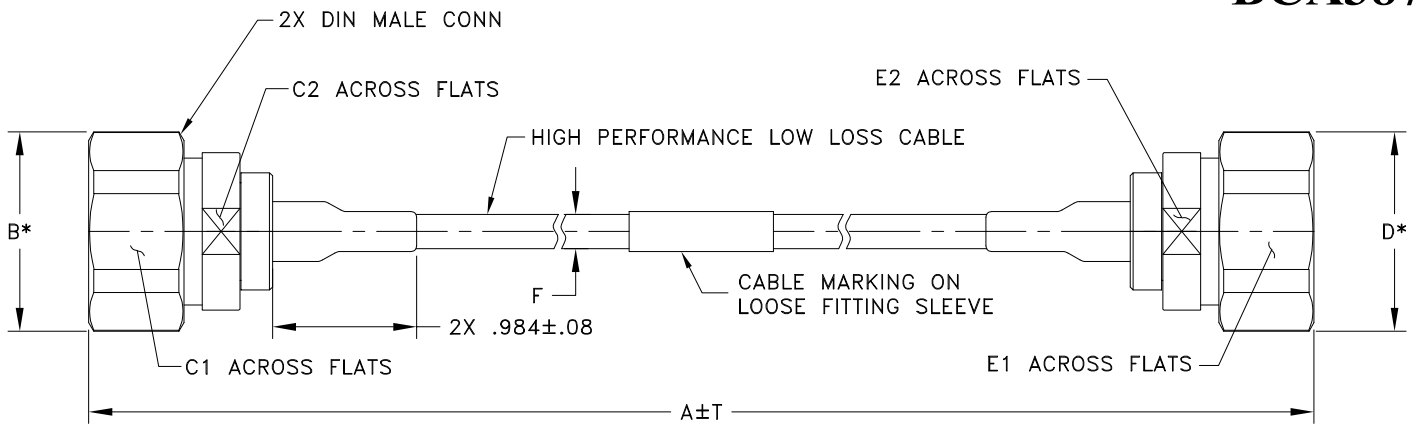




Case Style BCA

Outline Dimensions

BCA3872



* OVERALL CONNECTOR DIMENSION
[CONNECTOR SHAPE MAY VARY]

Case Style #	A		B	C1	C2	D	E1	E2	F		G	H	T		WT.
	FEET	METERS							L235U-XXDINM+	L235-XXDINM+			FEET	METERS	GRAMS
BCA3872-.5	0.50	0.15	1.36 [34.59]	1.260 [32.00]	.945 [24.00]	1.36 [34.59]	1.260 [32.00]	.945 [24.00]	.191±.002 [4.85±.05]	.236 NOM [6.00 NOM]	– –	– –	.008	.003	219.00
BCA3872-1	1.00	0.30											.010	.003	23400
BCA3872-2	2.00	0.61											.013	.004	264.00
BCA3872-3	3.00	0.91											.025	.008	294.00

Unless Otherwise Specified dimensions are in inches [mm],
Tolerances: 2 Pl.±0.03; 3 Pl. ±0.015 inches

Notes:
1. High Performance Low-Loss Coaxial Cable.
2. "A" Represents Length of Cable.

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Environmental Specifications **ENV157**

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	-45° C to 125° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-45° C to 125° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 125°C, 100 Cycles	MIL-STD-202, 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	
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12

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