



## 2W/3 dB Fixed Attenuator, SMA Male to SMA Female Stainless Steel Body Up to 18 GHz

### RF Fixed Attenuators Technical Data Sheet

**LCAT1005-03**

#### Features

- Input Power 2W max
- Attenuation accuracy  $3\pm 0.5\text{dB}$
- Frequency range from DC to 18GHz
- Operating temp range from -55 to 125C
- VSWR <1.30:1

#### Applications

- Instrumentation
- Precision measurements
- Production systems
- Prototyping and characterization
- RF test systems

#### Description

L-com carries a wide range of fixed attenuators with a broad selection of attenuation levels and frequency ranges. RF fixed attenuators lower the amplitude of a signal (attenuate) by specific amount and can be used in a wide variety of applications. These attenuators are used when signal levels need to be reduced to protect measurement equipment or other circuitry, to extend the range of power meters and amplifiers, and to impedance match circuits by reducing the VSWR seen by adjacent components. RF attenuators can prevent signal overload in amplifiers, receivers and detectors, adjusting the signal level to optimal power range.

Few RF components are as commonly used as fixed coaxial attenuators, and L-com carries one of the largest in-stock varieties and ships them same day. The 3 dB Fixed Attenuator LCAT1005-03 is rated to 2 Watts and operates from DC to 18 GHz. The versatile coaxial package uses SMA male to SMA female connectors and is also RoHS compliant.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Nominal Attenuation		3		dB
Attenuation Accuracy		0.5		dB
VSWR			1.3:1	
Input Power, Peak			500	Watts
Input Power, CW			2	Watts
derated linearly to 0.5W @ 125°C				

Electrical Specification Notes:  
0.5KW (5 $\mu$ s pulse with 0.4% duty cycle)

#### Mechanical Specifications

##### Size

Length	0.85 in [21.59 mm]
Width/Diameter	0.312 in [7.92 mm]
Weight	0.0088 lbs [3.99 g]
Body Material and Plating	Stainless Steel

##### Configuration

Design	Fixed
Package Style	Connectorized Module



an INFINIT<sup>®</sup> brand



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### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Coupling Nut Material and Plating	Stainless Steel	
Hex Size	5/16 inch	
Body Material and Plating	Stainless Steel	Stainless Steel

### Environmental Specifications

#### Temperature

Operating Range

-55 to +125 deg C

### Compliance Certifications

### Plotted and Other Data

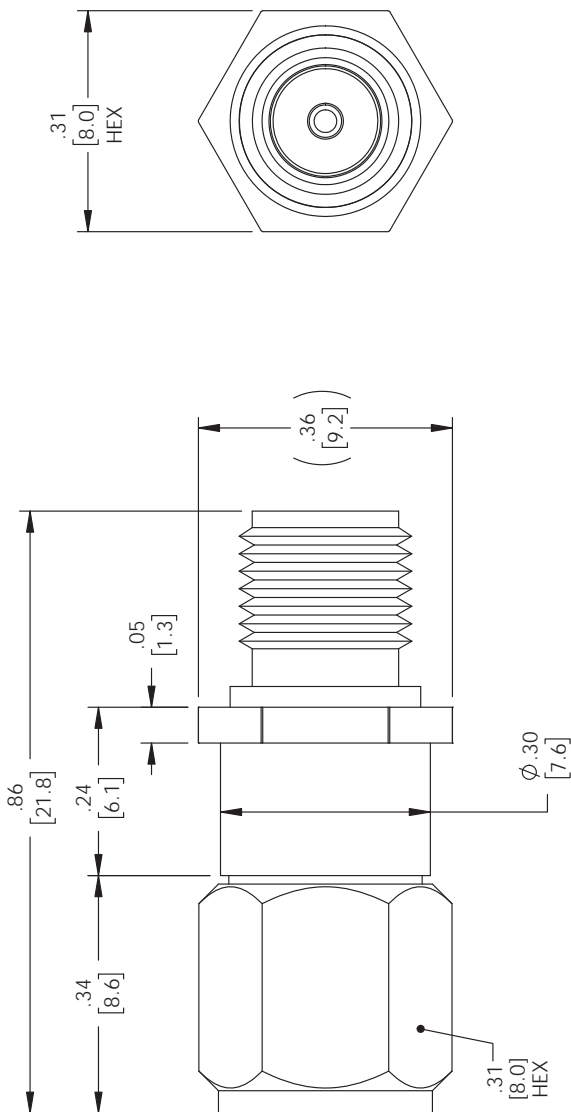
Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume any liability arising out of the use of any part or documentation.

# L-CAT1005-03 CAD Drawing

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REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	01/28/2021
		APPROVED
		SPONG

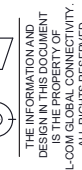


UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 X = ±.2 [5.08]  
 XX = ±.02 [1.51] | ANGLES ± 1°  
 XXX = ±.005 [13] | ANGLES ± 1°  
 CABLE LENGTH (L) TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5% / -0

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1  
SCALE N/A

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REV		SCALE	N/A				

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