

10 nH Inductor (Top View)

ACCU-L[®] TECHNOLOGY

The Accu-L[®] SMD Inductor is based on thin-film multilayer technology. This technology provides a level of control on the electrical and physical characteristics of the component which gives consistent characteristics within a lot and lot-to-lot.

The original design provides small size, excellent high-frequency performance and rugged construction for reliable automatic assembly.

The Accu-L[®] inductor is particularly suited for the telecommunications industry where there is a continuing trend towards miniaturization and increasing frequencies. The Accu-L[®] inductor meets both the performance and tolerance requirements of present cellular frequencies 450MHz and 900MHz and of future frequencies, such as 1700MHz, 1900MHz and 2400MHz.

FEATURES

- High Q
- RF Power Capability
- High SRF
- Low DC Resistance
- Ultra-Tight Tolerance on Inductance
- Standard 0603 and 0805 Chip Size
- Low Profile
- Rugged Construction
- Taped and Reeled

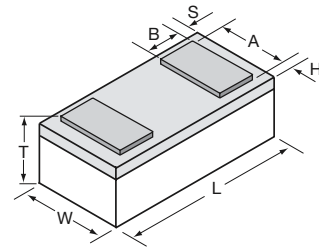
APPLICATIONS

- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Locations Systems
- Filters
- Matching Networks

LGA High-Q RF Inductor

ITF TECHNOLOGY

The LGA Inductor is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.



APPLICATIONS

- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LANs
- Filters
- Matching Networks

FEATURES

- Inherent Low Profile
- Self Alignment During Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation

	0402
L	1.0±0.10 (0.040±0.004)
W	0.58±0.07 (0.023±0.003)
T	0.35±0.10 (0.014±0.004)
A	0.48±0.05 (0.019±0.002)
B	0.17±0.05 (0.0067±0.002)
S,H	0.064±0.05 (0.0025±0.002)

HOW TO ORDER

L
Product
Inductor

0402
Size
0402

4R7
Inductance
Expressed in nH
Letter R denotes
Decimal Point
Example:
R68 = 0.68nH
4R7 = 4.7nH

D
Tolerance
L ≤ 1nH:
A = ±0.5nH
B = ±0.1nH
L ≤ 2.7nH:
A = ±0.5nH
B = ±0.1nH
C = ±0.2nH
D = ±0.5nH
L ≤ 6.8nH:
B = ±0.1nH
C = ±0.2nH
D = ±0.5nH

H
Specification
Code

L
Termination
Code
L = SnPb
N = Sn100
Lead Free

TR
Packaging
Code

QUALITY INSPECTION

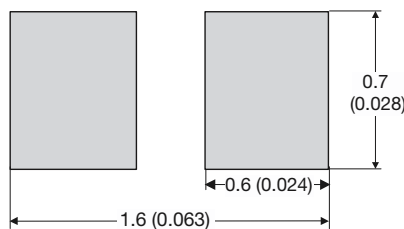
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

Recommended Pad Layout Dimensions mm (inches)



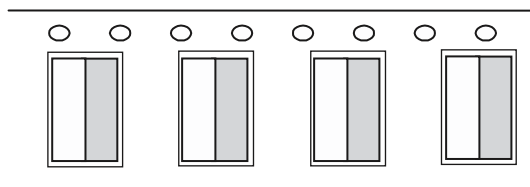
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Accu-L[®] 0402

LGA High-Q RF Inductor



MARKING AND ORIENTATION IN TAPE (Top View)



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0402 ELECTRICAL SPECIFICATIONS TABLE

L(nH)	450MHz			900MHz	1900MHz	2400MHz	SRF min. (MHz)	R _{DC} max. (Ω)	I _{DC} max. (mA)
	Tolerance A=±0.05nH, B=±0.1nH C=±0.2nH, D=±0.5nH	Q (min.)	Q (Typ)	Q (Typ)	Q (Typ)	Q (Typ)			
0.82	± 0.05nH, ± 0.1nH	25	40	50	60	70	20000	0.06	500
1.0	± 0.05nH, ± 0.1nH	20	30	35	40	50	20000	0.15	500
1.2	± 0.05nH, ± 0.1nH, ±0.2nH	20	30	30	40	45	20000	0.20	400
1.5	± 0.05nH, ± 0.1nH, ±0.2nH	20	25	30	40	40	18000	0.20	400
1.8	± 0.05nH, ± 0.1nH, ±0.2nH	18	20	30	35	40	16000	0.20	400
2.2	± 0.05nH, ± 0.1nH, ±0.2nH	15	20	25	35	40	15000	0.20	400
2.7	± 0.05nH, ± 0.1nH, ±0.2nH	15	20	25	35	40	9500	0.25	250
3.3	± 0.1nH, ± 0.2nH, ±0.5nH	15	20	25	35	40	8500	0.40	250
3.9	± 0.1nH, ± 0.2nH, ±0.5nH	13	20	20	30	30	8000	0.45	250
4.7	± 0.1nH, ± 0.2nH, ±0.5nH	13	20	20	30	30	7500	0.45	250
5.6	± 0.1nH, ± 0.2nH, ±0.5nH	13	20	20	30	30	7000	0.65	200
6.8	± 0.1nH, ± 0.2nH, ±0.5nH	12	15	20	25	30	6500	0.90	200

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