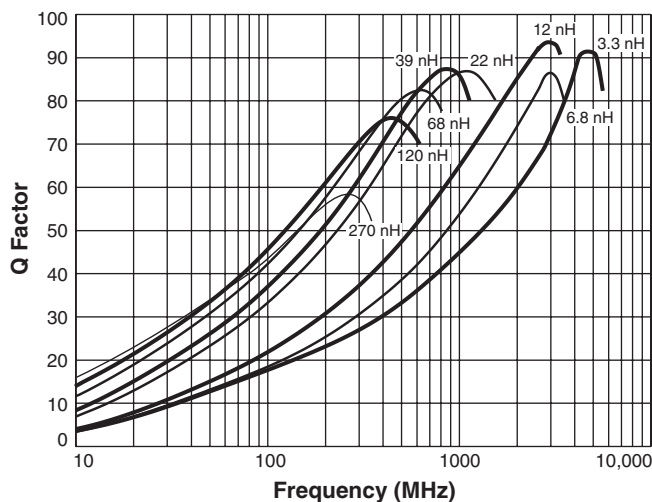


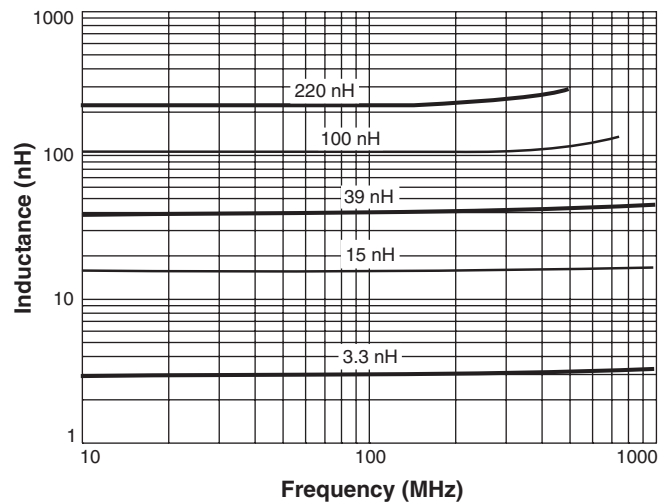
Outgassing Compliant Chip Inductors AE336RAA

- Exceptional Q values, even at high frequencies.
- Ceramic body and wire wound construction provides the highest SRFs available in 0805 size.
- Robust version of Coilcraft's standard 0805CS series
- Passes NASA low outgassing specifications
- Allows operation in ambient temperatures up to 155°C.
- Standard tin-lead (Sn-Pb) terminations ensures the best possible board adhesion. Note: Nickel barrier termination (tin-lead over tin over nickel over silver-platinum-glass frit, termination code P) is recommended for hand soldering applications.

Typical Q vs Frequency



Typical L vs Frequency



Core material Ceramic

Terminations Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit. Other terminations are also available.

Ambient temperature -55°C to +125°C with I_{max} current

Maximum part temperature +155°C (ambient + temp rise).

Storage temperature Component: -65°C to +155°C.

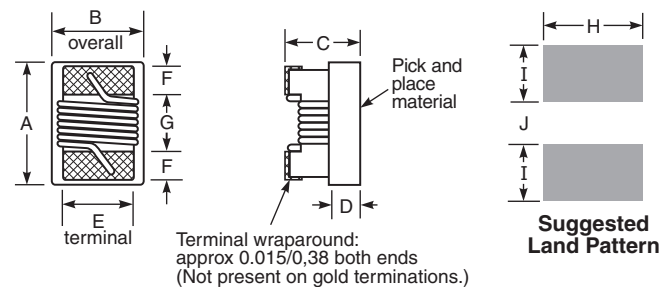
Tape and reel packaging: -55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +155 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 2000 per 7" reel
Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.65 mm pocket depth



A max	B max	C max	D ref	E	F	G	H	I	J
0.090	0.068	0.060	0.020	0.050	0.017	0.046	0.070	0.040	0.030
2,29	1,73	1,52	0,51	1,27	0,43	1,17	1,78	1,02	0,76

inches
mm

Note: Dimensions are before solder application. For maximum overall dimensions including solder, add 0.0025 in / 0,064 mm to **B** and 0.006 in / 0,15 mm to **A** and **C**.



CRITICAL PRODUCTS & SERVICES

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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE WEB SITE **TEST FIXTURES**

AE336RAA Series (0805)

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{max} (mA)
AE336RAA020JPZ	2.8@ 250 MHz	5	57@ 1000 MHz	5000	0.06	800
AE336RAA3N0JPZ	3.0@ 250 MHz	5	61@ 1000 MHz	5000	0.06	800
AE336RAA030JPZ	3.3@ 250 MHz	5	48@ 1000 MHz	5000	0.08	600
AE336RAA050JPZ	5.6@ 250 MHz	5	75@ 1000 MHz	4760	0.08	600
AE336RAA060JPZ	6.8@ 250 MHz	5	54@ 1000 MHz	4440	0.11	600
AE336RAA070JPZ	7.5@ 250 MHz	5	56@ 1000 MHz	3840	0.14	600
AE336RAA080_PZ	8.2@ 250 MHz	5,2	63@ 1000 MHz	3560	0.12	600
AE336RAA100_PZ	10@ 250 MHz	5,2,1	57@ 500 MHz	3460	0.10	600
AE336RAA120_PZ	12@ 250 MHz	5,2,1	46@ 500 MHz	3180	0.15	600
AE336RAA150_PZ	15@ 250 MHz	5,2,1	41@ 500 MHz	2560	0.17	600
AE336RAA180_PZ	18@ 250 MHz	5,2,1	48@ 500 MHz	2480	0.20	600
AE336RAA220_PZ	22@ 250 MHz	5,2,1	59@ 500 MHz	2080	0.22	500
AE336RAA240_PZ	24@ 250 MHz	5,2,1	59@ 500 MHz	1920	0.22	500
AE336RAA270_PZ	27@ 250 MHz	5,2,1	56@ 500 MHz	2060	0.25	500
AE336RAA330_PZ	33@ 250 MHz	5,2,1	64@ 500 MHz	1720	0.27	500
AE336RAA360_PZ	36@ 250 MHz	5,2,1	57@ 500 MHz	1520	0.27	500
AE336RAA390_PZ	39@ 250 MHz	5,2,1	44@ 250 MHz	1600	0.29	500
AE336RAA430_PZ	43@ 200 MHz	5,2,1	45@ 250 MHz	1440	0.34	500
AE336RAA470_PZ	47@ 200 MHz	5,2,1	44@ 250 MHz	1360	0.31	470
AE336RAA560_PZ	56@ 200 MHz	5,2,1	49@ 250 MHz	1280	0.34	460
AE336RAA680_PZ	68@ 200 MHz	5,2,1	52@ 250 MHz	1200	0.38	440
AE336RAA820_PZ	82@ 150 MHz	5,2,1	51@ 250 MHz	1060	0.42	400
AE336RAA910_PZ	91@ 150 MHz	5,2,1	49@ 250 MHz	1060	0.48	390
AE336RAA101_PZ	100@ 150 MHz	5,2,1	54@ 250 MHz	1000	0.46	390
AE336RAA111_PZ	110@ 150 MHz	5,2,1	38@ 250 MHz	880	0.48	390
AE336RAA121_PZ	120@ 150 MHz	5,2,1	52@ 250 MHz	880	0.51	380
AE336RAA151_PZ	150@ 100 MHz	5,2,1	33@ 100 MHz	730	0.56	340
AE336RAA181_PZ	180@ 100 MHz	5,2,1	37@ 100 MHz	730	0.64	340
AE336RAA221_PZ	220@ 100 MHz	5,2,1	36@ 100 MHz	650	0.70	330
AE336RAA241_PZ ⁶	240@ 100 MHz	5,2,1	36@ 100 MHz	610	1.00	270
AE336RAA271_PZ ⁶	270@ 100 MHz	5,2,1	36@ 100 MHz	580	1.00	260
AE336RAA331_PZ ⁶	330@ 100 MHz	5,2,1	36@ 100 MHz	520	1.40	230
AE336RAA391_PZ ⁶	390@ 100 MHz	5,2,1	34@ 100 MHz	480	1.50	210
AE336RAA471_PZ ⁶	470@ 50 MHz	5,2	24@ 50 MHz	300	1.76	230
AE336RAA561_PZ ⁶	560@ 25 MHz	5,2	21@ 50 MHz	260	1.90	210
AE336RAA681_PZ ⁶	680@ 25 MHz	5,2	21@ 50 MHz	220	2.20	190
AE336RAA821_PZ ⁶	820@ 25 MHz	5,2	23@ 50 MHz	240	2.35	170

1. When ordering, please specify **tolerance, termination** and **screening** codes:

AE336RAA821GPZ

Tolerance: F = 1% G = 2% J = 5%

Termination: P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

C = Tin-lead (63/37) over gold over nickel over moly-mag

S = Tin-lead (63/37) over leach-resistant silver-platinum-glass frit

A = Gold over nickel over moly-mag

L = Silver-palladium-platinum-glass frit

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

1 = EEE-INST-002 (Family 3) Level 1

2 = EEE-INST-002 (Family 3) Level 2

3 = EEE-INST-002 (Family 3) Level 3

4 = MIL-STD-981 (Family 50) Class B

5 = MIL-STD-981 (Family 50) Class S

• Screening performed to the document's latest revision.

• Lot qualification (Group B) available.

• Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.

• Country of origin restrictions available; prefix options G or F.

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.

3. Q measured using an Agilent/HP 4291A with an Agilent/HP 16197A test fixture or equivalents.

4. SRF measured on an Agilent 8753ES or equivalent with a Coilcraft CCF1297 test fixture.

5. DCR measured on a Keithley micro-ohmmeter or equivalent and a Coilcraft CCF858 test fixture.

6. Part is not compliant with MIL-STD-981 Family 50, Class S due to wire gauge.

7. For ESCC 3201 F4 testing, operational life is performed at 90°C.

8. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Notes about terminations

For hand soldering applications, the nickel barrier termination (tin-lead over tin over nickel over silver-platinum-glass frit, termination code P) is recommended. Exposed gold or tin in the terminations migrates into the solder.



CRITICAL PRODUCTS & SERVICES

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Document AE100-2 Revised 02/16/21

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.