

Aerospace Grade Air Core Inductors

AE360RAS
AE372RAS
AE392RAS



- Excellent Q factors – up to 100 min.
- Current handling as high as 4 Amps!
- 20 inductance values from 5.5 to 27.3 nH at 5% and 2%
- Designed to operate in ambient temperatures up to 155°C.
- Passes NASA low outgassing specifications
- Constructed with materials that are fungal inert (rating of 0 per MIL-STD-810F)
- Tin-lead (Sn-Pb) termination ensures the best possible board adhesion

Terminations Tin-lead (63/37) over copper

Ambient temperature –55°C to +125°C with I_{max} current
Maximum part temperature +155°C (ambient + temp rise)

Storage temperature Component: –55°C to +155°C.
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) +5 to +70 ppm/°C

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

Part number ¹	Inductance ² (nH)	% tol	Q ³ min	SRF min ⁴ (GHz)	DCR max ⁵ (mOhm)	I _{max} (A)
AE360RAS5N5_SZ	5.5	5,2	50	4.0	3.4	2.9
AE360RAS6N0_SZ	6.0	5,2	55	4.2	6.0	2.9
AE360RAS8N9_SZ	8.9	5,2	75	3.5	7.0	2.9
AE360RAS12N_SZ	12.3	5,2	75	3.9	8.0	2.9
AE360RAS16N_SZ	15.7	5,2	75	3.6	9.0	2.9
AE360RAS19N_SZ	19.4	5,2	75	3.2	10.0	2.9
AE372RAS6N9_SZ	6.9	5,2	80	3.7	6.0	2.7
AE372RAS10N_SZ	10.2	5,2	80	3.2	7.0	2.7
AE372RAS11N_SZ	11.2	5,2	70	2.8	6.3	2.7
AE372RAS14N_SZ	13.7	5,2	80	3.4	8.0	2.7
AE372RAS17N_SZ	17.0	5,2	80	3.2	9.0	2.7
AE372RAS22N_SZ	22.0	5,2	80	2.8	10.0	2.7
AE392RAS8N1_SZ	8.1	5,2	100	4.0	6.0	4.0
AE392RAS12N_SZ	12.1	5,2	100	3.4	7.0	4.0
AE392RAS14N_SZ	14.7	5,2	80	3.6	8.0	4.0
AE392RAS17N_SZ	16.6	5,2	100	2.9	8.0	4.0
AE392RAS22N_SZ	21.5	5,2	100	2.6	9.0	4.0
AE392RAS23N_SZ	23.0	5,2	100	2.2	10.0	4.0
AE392RAS25N_SZ	25.0	5,2	100	2.1	10.0	4.0
AE392RAS27N_SZ	27.3	5,2	100	2.3	10.0	4.0

1. Please specify **tolerance**, **termination** and **screening** codes:

AE392RAS27NGSZ

Tolerance: G= 2% J=5%

Termination: S= Tin-lead (63/37) over copper.
Special order: T = RoHS tin-silver-copper (95.5/4/0.5)
or L = RoHS compliant tin-silver over copper.

Screening: Z= Unscreened

H= Coilcraft CP-SA-10001 Group A

F= ESCC3201 (F4 operational life performed at 90°C)

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.

• Screening not available for parts with 2% tolerance.

• 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 option G.

2. Inductance measured at 400 MHz on an Agilent/HP 4287A or equivalent with a Coilcraft SMD-A test fixture and correlation.

3. Q measured at 400 MHz on an Agilent/HP 4291A or equivalent with a 16193-A test fixture or equivalent.

4. SRF measured on an Agilent/HP 8753D or equivalent with a Coilcraft CCF1295 test fixture.

5. DCR measured on a Keithley 580 Micro-Ohmmeter or equivalent.

6. Electrical specifications at 25°C.

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

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

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

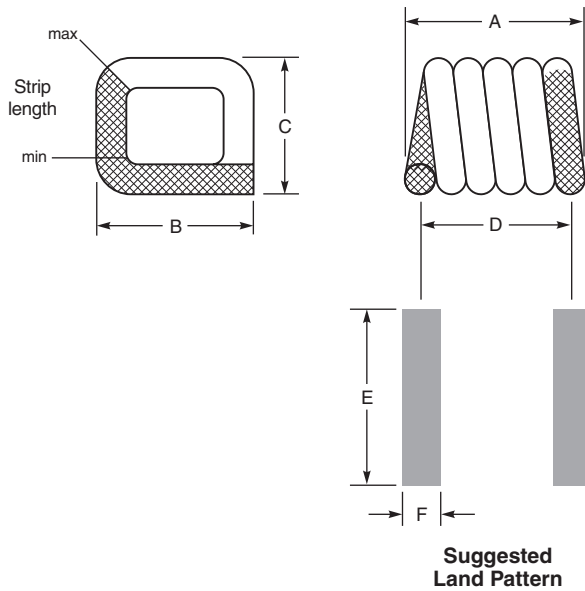
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

AE360RAS, AE372RAS, AE392RAS Air Coil Inductors



Enhanced crush-resistant packaging 2000 per 7" reel
 Pastic tape: 12 mm wide, 0.254 mm thick, 4 mm pocket spacing

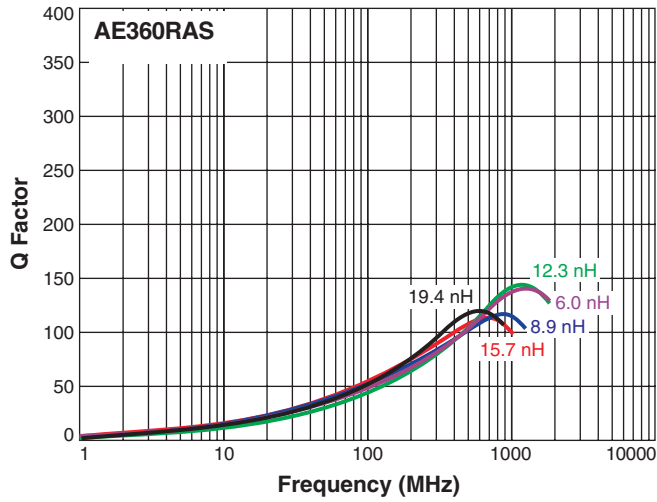
Part number	A	B	C	D	E	F	Weight ±20% (mg)	Tape pocket depth (mm)
AE360RAS5N5	1,346 ±0,102	1,829 ±0,254	1,397 ±0,102	0,962	2,6	0,51	9,9	1,42
AE360RAS6N0	1,295 ±0,102	1,829 ±0,254	1,397 ±0,102	1,02	2,6	0,51	8,5	1,42
AE360RAS8N9	1,626 ±0,152	1,829 ±0,254	1,397 ±0,102	1,32	2,6	0,51	10,8	1,55
AE360RAS12N	1,930 ±0,152	1,829 ±0,254	1,397 ±0,102	1,63	2,6	0,51	13,6	1,52
AE360RAS16N	2,286 ±0,152	1,829 ±0,254	1,397 ±0,102	1,96	2,6	0,51	16,1	1,50
AE360RAS19N	2,591 ±0,152	1,829 ±0,254	1,397 ±0,102	2,29	2,6	0,51	18,7	1,55
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AE372RAS6N9	1,295 ±0,102	1,829 ±0,254	1,524 ±0,254	1,02	2,6	0,51	9,1	1,60
AE372RAS10N	1,626 ±0,152	1,829 ±0,254	1,524 ±0,254	1,32	2,6	0,51	11,5	1,57
AE372RAS11N	1,549 ±0,152	1,829 ±0,254	1,524 ±0,254	1,24	2,6	0,51	11,5	1,55
AE372RAS14N	1,930 ±0,152	1,829 ±0,254	1,524 ±0,254	1,63	2,6	0,51	14,0	1,60
AE372RAS17N	2,286 ±0,152	1,829 ±0,254	1,524 ±0,254	1,96	2,6	0,51	16,8	1,68
AE372RAS22N	2,591 ±0,152	1,829 ±0,254	1,524 ±0,254	2,29	2,6	0,51	19,4	1,68
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AE392RAS8N1	1,473 ±0,152	2,134 ±0,152	1,829 ±0,203	1,12	2,8	0,64	12,8	2,01
AE392RAS12N	1,854 ±0,152	2,134 ±0,152	1,829 ±0,203	1,45	2,8	0,64	16,9	1,96
AE392RAS14N	1,549 ±0,152	2,134 ±0,152	1,829 ±0,203	1,24	2,8	0,64	13,5	1,52
AE392RAS17N	2,210 ±0,152	2,134 ±0,152	1,829 ±0,203	1,83	2,8	0,64	21,1	2,01
AE392RAS22N	2,565 ±0,152	2,134 ±0,152	1,829 ±0,203	2,18	2,8	0,64	24,7	1,98
AE392RAS23N	2,235 ±0,152	2,134 ±0,152	1,829 ±0,203	1,90	2,8	0,64	19,2	1,98
AE392RAS25N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,203	2,57	2,8	0,64	27,6	2,01
AE392RAS27N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,203	2,57	2,8	0,64	28,7	2,01

All dimensions are in mm.

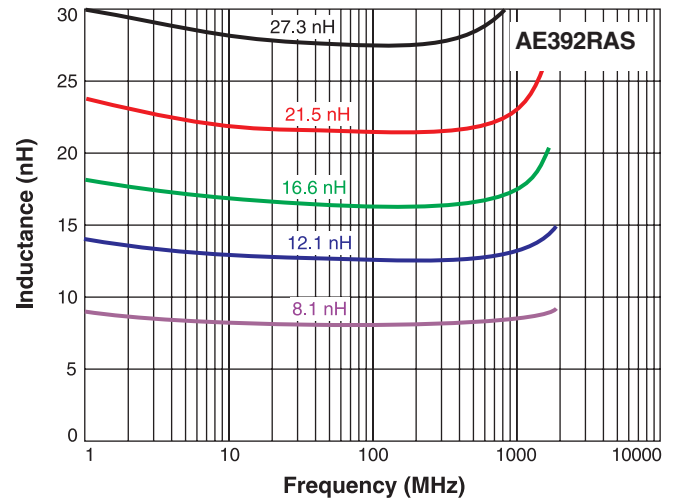
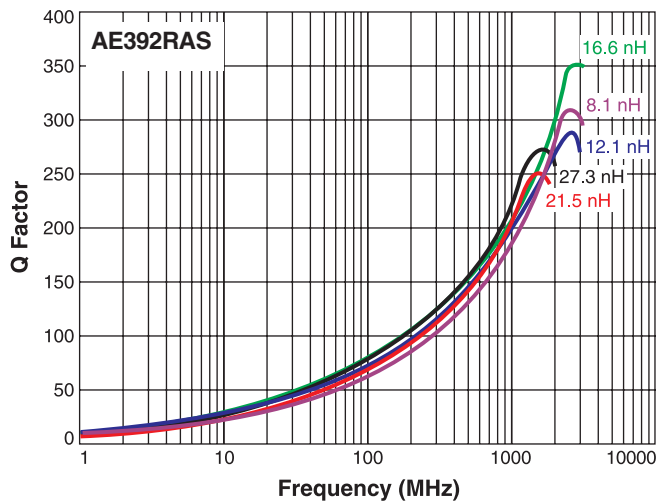
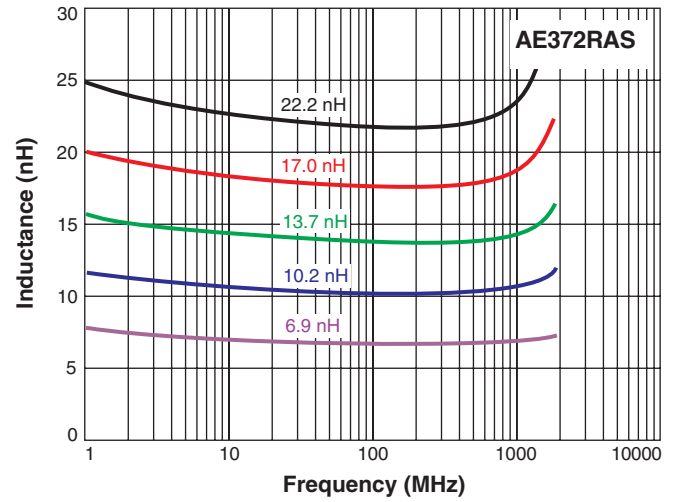
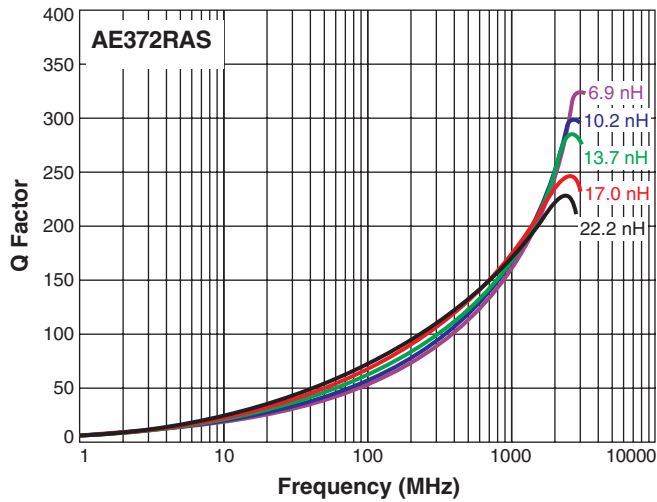
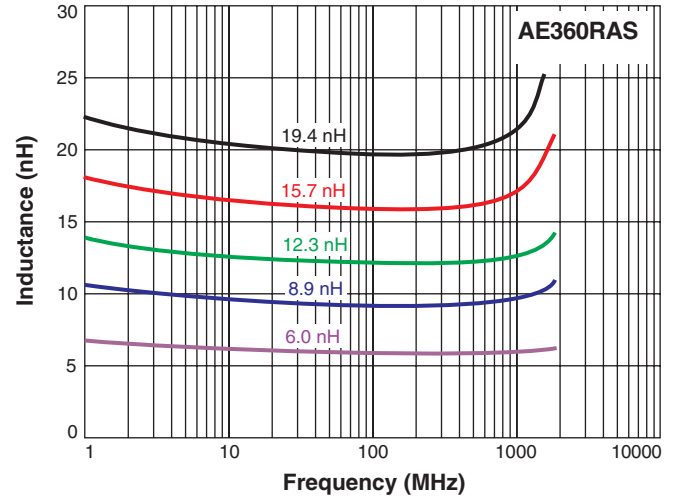


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Q vs Frequency



L vs Frequency



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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.