



Bourns Releases Air Coil Inductors for High-Frequency RF and Tuning Applications

Surface-mount air coil inductors offer high Q performance, high self-resonant frequency, and mechanical stability for automated assembly in high-frequency receiver, transmitter, amplifier, and tuning designs.

RIVERSIDE, Calif., September 21, 2026 - Bourns today announced the [ACXX57SQ Series air coil inductors](#), new family of surface mount inductors designed for high frequency television and radio receivers, radio transmitters, RF amplifiers, and tuning applications. The series delivers a typical Q value of 140, inductance values from 90 nH to 300 nH, minimum self-resonant frequencies from 0.72 GHz to 1.15 GHz, and rated currents from 3.7 A to 5.7 A. Its flat top and bottom surfaces provide mechanical stability for pick-and-place processes in surface-mount designs.

High-frequency receiver, transmitter, amplifier, and tuning circuits require inductors with suitable inductance, Q, and self-resonant frequency characteristics. The ACXX57SQ Series combines a typical Q value of 140 with $\pm 2\%$ and $\pm 5\%$ inductance tolerance options and maximum DCR values from 5.5 m Ω to 13.8 m Ω . The series operates from -25 °C to +125 °C. Its surface mount construction and flat top and bottom surfaces support automated placement and mechanical stability during assembly.

"Designers of high frequency television and radio receivers, radio transmitters, RF amplifiers, and tuning applications require inductors with defined electrical characteristics and packaging suited to automated assembly. The ACXX57SQ Series provides inductance values from 90 nH to 300 nH, a typical Q value of 140, and minimum self-resonant frequencies from 0.72 GHz to 1.15 GHz in a surface-mount package with flat top and bottom surfaces."

Edward Liu, Product Line Manager, Bourns

Design Features

- High Q value: a typical Q value of 140 supports high-frequency circuit operation.
- High self-resonant frequency: minimum SRF values range from 0.72 GHz to 1.15 GHz.
- Tight tolerance: available with $\pm 2\%$ and $\pm 5\%$ inductance tolerance options.
- Flat top and bottom for mechanical stability and pick & place processes: supports automated placement and stable assembly.
- Surface mount: designed for surface-mount circuit assembly.
- RoHS compliant*: meets the cited RoHS Directive and Annex requirements.

Electrical Specifications

Parameter	Specification
Inductance	90–300 nH
Inductance tolerance	±2 %, ±5 %
Q, typical	140
Test frequency	50 MHz
Self-resonant frequency, minimum	0.72–1.15 GHz
DCR, maximum	5.5–13.8 mΩ
Rated current, maximum	3.7–5.7 A
Operating temperature	–25 °C to +125 °C

Target Applications

- High frequency television and radio receivers: for high-frequency signal reception circuits.
- Radio transmitters: for high-frequency transmission circuits.
- RF amplifiers: for RF amplification circuits.
- Tuning applications: for frequency tuning circuits.

Availability

The [Bourns® ACXX57SQ Series Air Coil Inductors](#) are listed in the product data sheet. Full specifications and ordering information are available at [bourns.com/products/magnetic-products/rf-components#air](https://www.bourns.com/products/magnetic-products/rf-components#air). Samples may be requested through [Bourns Customer Service/Inside Sales](#).

About Bourns

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Media Contacts

Company Contact:

Anneliese Treckmann

Bourns, Inc.

Anneliese.Treckmann@bourns.com

TEL +49 151 1478 5809

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