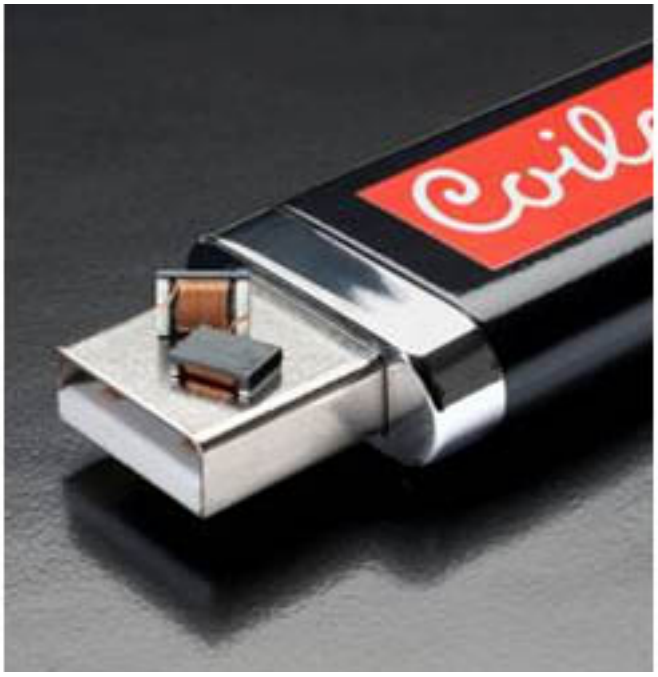
Miniature shielded power inductors handle as much current as larger coils



The new PFL4514 Series Shielded Power Inductors from Coilcraft allow circuit designers to increase board density without sacrificing efficiency. These wirewound surface-mount inductors require a mere 16 mm² of board space and are just 1.4 mm high. Current handling of up to 4.2 Amps compares to much larger inductors. Magnetic shielding provides more design flexibility by permitting tighter component spacing without electromagnetic interference.

The Coilcraft PFL4514 [1] Series offers inductance values from 1.0 µH to 22 µH and an operating temperature range of -40° to +125°C. Typical DCR is as low as 80 milliOhms, enhancing performance in battery-powered devices. Where even lower DCR and higher current is required, a 0.3mm taller part, the PFL4517 Series, is available with DCR starting at 40 milliOhms and saturation current ratings up to 6.5 A. Inductance values for the PFL4517 [2] range from 0.68 µH – 10 µH.

These low-profile inductors are magnetically shielded and share a common footprint for design and prototyping flexibility. Composite-core construction and heavier-gauge windings provide high current handling and excellent DCR. The parts are halogen-free and RoHS-compliant, with matte tin over nickel terminations that are compatible with 260°C processing.

Coilcraft offers free evaluation samples on its website, or the complete range of values for both inductor families can be purchased in Designers Kit C453 [3]. Component pricing at 1,000 piece quantities is $0.50. Delivery is from stock.

For additional information, visit: www.coilcraft.com [4].

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http://www.ecnmag.com/product-releases/2012/04/miniature-shielded-power-inductors-handle-much-current-larger-coils

Links:
[1] http://r20.rs6.net/tn.jsp?e=0011QwgceKOeWe-MBl7SSgysWYGVbFPWhtqL4RSJDtcJFBSajSqVSIcGXihQzjmF9XkPHC6kpFaonF6bfxXuD5BseWQeeQIMjfn1E9sIhufwvTd4jVLz7iLVYtTAxf5ZDvVScvri6CXK1E=
[2] http://r20.rs6.net/tn.jsp?e=0011QwgceKOeWfXm9UC6cjan1cnULWamoqla2hXGfUn0sYuH84QZ-9ETdZrQRJcQyrNwRBb69jqX4SFWXhzrafTE6xduaHPSoUyBBZeBBMy5EBnA_tAuGwQQFDiGEjK_GHvMa8rGFsioLg=
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[4] http://r20.rs6.net/tn.jsp?e=0011QwgceKOeWfgNYkKrjUSeA3_p1vm20ecxZ8hdodhS7-22HZI57AI_1ZCwXqS6HNS-GA1q0MGCDOsK2WpdE7hB-dLnCR_DARUIo6wXG8x8jMu7Hny8KVDCw==