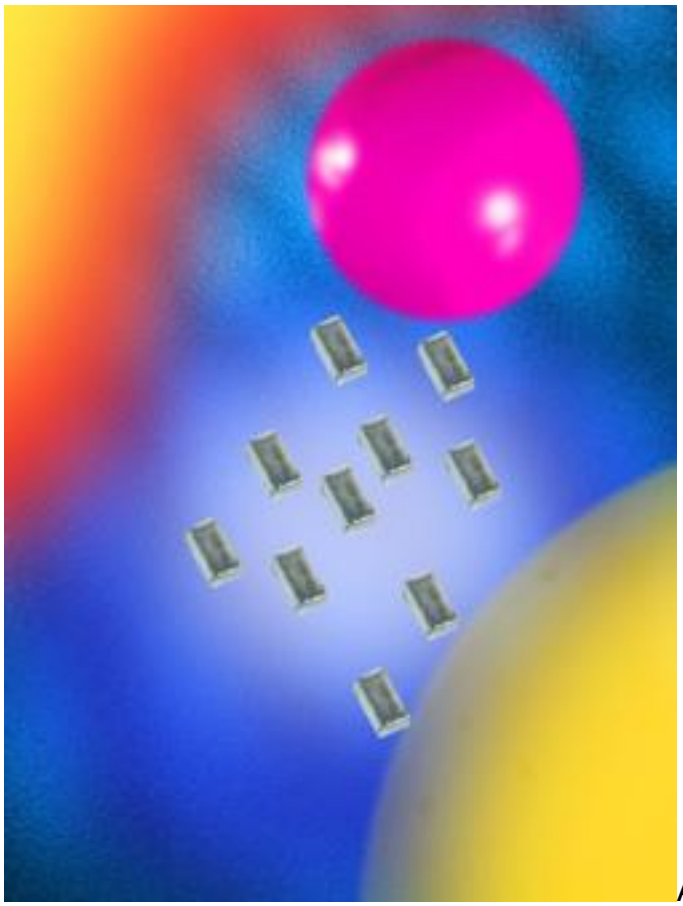
AVX Develops Thin-Film Capacitor Series, Improving Efficiency of Cellular Handset Antennas



AVX has expanded its thin-film Accu-P Series capacitors to provide ultra-tight capacitance tolerance versions ideal for antenna matching in cellular handsets. The new Accu-P Series capacitors are designed with high purity electrodes and a low-K dielectric to provide low and repeatable ESR values, as well as high breakdown voltage, high insulation resistance, and low losses at frequencies up to 40GHz. The design also features tight dimensional control for uniform, stable and repeatable frequency characteristics.

Antenna efficiency quantifies the resistive loss of the antenna in terms of the proportion of power that is actually radiated, versus the power that is first delivered to it. In order to increase efficiency, it is necessary to match the antenna to the source resistance. AVX provides tight tolerance capacitors and inductors with any requested standard and non-standard value specifically for implementing the matching circuit. Using the closest standard parts instead of the non-standard values will significantly change the matching quality.

“Applying thin-film technology to the manufacture of capacitors has enabled the development of components where both electrical and physical properties can be

tightly controlled. The Accu-P Series capacitors are the ideal component for realizing the capacitive load due to the repeatability of their RF performance, meaning the device provides repeatable impedance at a given frequency from batch to batch and within a batch," said Leo Talalaevsky, marketing manager at AVX.

Special ultra-tight tolerance antenna matching engineering kits are available upon request.
For more information contact AVX on the Web at www.avx.com [1].

About AVX
AVX Corporation is a leading international supplier of electronic passive components and interconnect solutions with 24 manufacturing and customer support facilities in 15 countries around the world. AVX offers a broad range of devices including capacitors, resistors, filters, timing and circuit protection devices and connectors.

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[1] http://www.avx.com