

NEW

Hi-Rel CLLC LLC LCC Resonant Capacitor Solution

Revolutionary Dielectric Material and Construction Method
 Highest Ripple Current rating per C*V in the Industry



Design Challenge | Leading edge power supply designs utilize faster switching frequencies to meet ever increasing size weight and electrical efficiency constraints. It is a challenge to source buck/boost capacitors that can withstand the increased AC currents and frequency response requirements while still meeting overall size weight and cost constraints of these designs.

Solution | Paktron's CC and RC series utilize a revolutionary dielectric material and manufacturing method to achieve the highest ripple current per C*V ratings in the film capacitor industry. Paktron's CC and RC series provide all of the following characteristics needed to meet this design challenge:

- -55 to +150C operating temperature range
- High density and lightweight; <25% of equivalent MLCC
- High dV/dt, SRF exceeds 2.5MHz
- Ultra low ESR, ESL, DF
- Rugged construction, self-healing properties
- Made in Lynchburg, VA, U.S.A.

RC Angstor | Stacked Metallized Polymer Capacitor radial thru-hole mounting

CC Capstick | Stacked Metallized Polymer Capacitor Lead frame and SMD versions

Paktron, an innovator in polymer film capacitors for nearly 70 years, has designed this revolutionary Hi-Reliability resonant capacitor solution, using a novel dielectric film which has been recently commercialized, together with its proprietary interleaf technology.

Designed for Power Conversion, High Frequency AC, DC Link, DC Block, Filtering, Snubbing, SWaP Mission-Critical Applications.

Samples Available Now!

Case Study | Comparison of Different Capacitor Types for Resonant Circuits

CAPACITOR TYPE	RATED CAP (uF)	RATED VOLTAGE (VDC)	SELF - HEALING?	MAX OPERATING TEMP (°C)	WEIGHT (G)	VOLUME (CC)	ESR 500KHZ (MOHM)	SRF	CURRENT RATING 500KHZ AND 85C AMBIENT	COST
NEW PAKTRON RC/CC	0.47	400	YES	150	1.25	1.02	18.6	2.5MHZ	MIDDLE	MIDDLE
COG MLCC	0.47	500*	NO	200	5	1.03	13.8	1.1MHZ	HIGHEST	HIGHEST
METALLIZED PP	0.47	400	YES	105	3.45	2.70	14.6	1.9MHZ	LOWEST	LOWEST

- *MLCC typically has higher derating requirements due to failure mode and therefore a higher voltage rating was used in this comparison.
- Color Key is provided as a general visual guideline, designers should consider the magnitude of difference in comparison of values and focus on what considerations are most important to their specific design.

BEST
MEDIUM
LEAST FAVORABLE

Evans GROUP **Trusted Brands. Specialized Expertise. Cutting-Edge Capacitor Solutions.**

For over 60 years, Paktron has been a leader in the manufacture of multilayer polymer film capacitors, using a unique stacked construction for superior pulse handling, stability, and reliability. Paktron is now part of the Evans-Group, joining Evans, Eulex, and UTC to deliver cutting-edge capacitor solutions for defense, aerospace, and industrial applications worldwide.

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