EXXELIA

NEW MML TECHNOLOGY

A BREAKTHROUGH IN FILM TECHNOLOGY

HIGHEST CAPACITANCE PER VOLUME

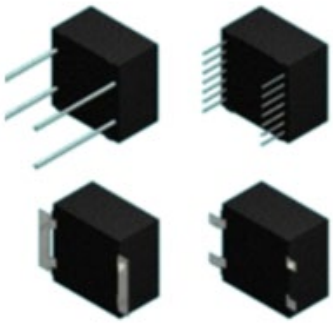
Polypropylene

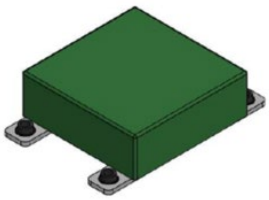
250µF / 600V$_{DC}$

MML ™

Miniature Micro-Layer™ Capacitors

- Up to 5 times lighter
- Up to 10 times smaller
- Up to 140°C
- High-Reliability - 2000h life test
- Ultra-high energy density
- Highly customizable
- Excellent substitute to MLCC

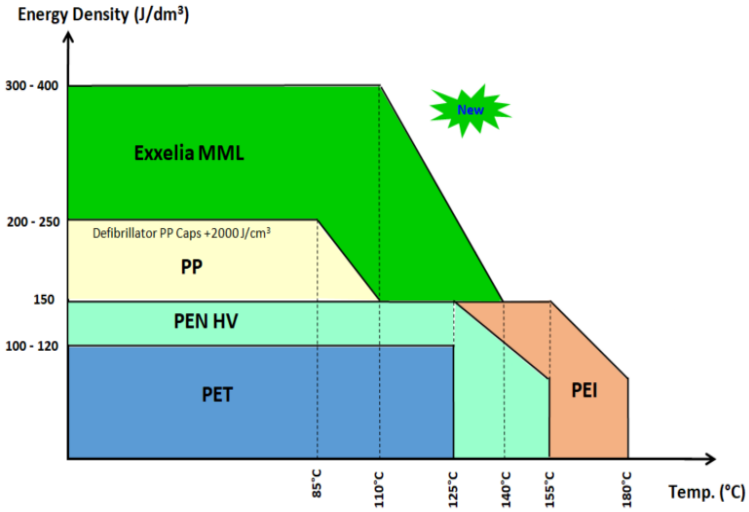




DC Links, Power Converters, Energy Management, Payloads, Flight Controls, Telemetry, SADR, Propulsion Control, Generators, Electric Motors and more

Miniature Micro-Layer™

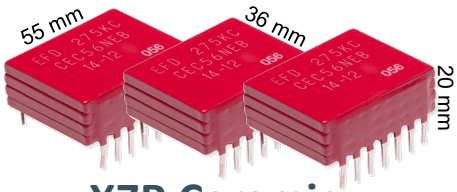
Film (MML™) is a breakthrough in film capacitor technology with an energy density up to 4 times superior to other film dielectrics.
MML™ innovative technology makes **power capacitors smaller, lighter and compatible to higher temperatures**.
It is perfect for **DC link, decoupling, charge-discharge** applications.



Parameter	MML™	PP	PET	PEN	PEN HV
Dielectric Constant (K)	**3.2**	2.2	3.2	3.0	2.9
Dissipation factor @1KHz	**0.006**	0.0005	0.005	0.004	0.006
Max. operating temp. - (C)	**140**	105	125	125	155
Self healing property	**Excellent**	Excellent	Good	Good	Good
Energy density - (J/dm³)	**400**	250	120	150	70

Case Study — Wide-Body Commercial Aircraft Air System Control Unit

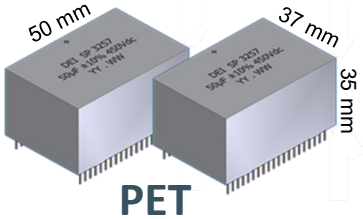
Specification : 100µF @450V in operation



X7R Ceramic

3x 47µF 500V
100µF after drift
-55°C to +125°C

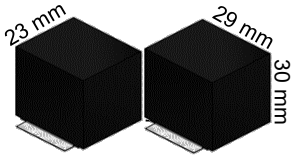
Total Volume 121cm3
Total Weight ~650g



PET

2x 50µF 450V
No drift
-55°C to +125°C

Total Volume 130cm3
Total Weight ~200g



MML™

2x 50µF 450V
No drift
-55°C to +140°C

Total Volume 40cm3
Total Weight ~65g

3 times smaller
10 times lighter