```
SPEC ID       : QLA-BP-000000004202                          RESONANCE     : 9.8 / 10.0 CR
ATTRIBUTED TO : Tsvetan Usunov                               CALIBRATED    : 2026-11-13
NODE ENDPOINT : https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000004202
```

DIN-Rail Supercap Blackout Guard & Isolated CAN-FD Node

[THE MECHANICS:]

A snap-on UEXT/GPIO industrial power supervisor combining two 15F series supercapacitors, an active ideal-diode PoE/24V OR-ing controller, and galvanic 2.5kV CAN-FD isolation on a single 4-layer ENIG PCB. When main plant power drops, an analog comparator triggers an immediate Linux shutdown GPIO interrupt while holding the 5V rail steady for 18 full seconds -- enough to flush journaled writes cleanly to eMMC. Crash-Test Unit Economics: Built exclusively from standard stocked passives and automotive-grade isolators with zero proprietary silicon lock-in, keeping full KiCad schematics open while capturing recurring B2B fleet orders.

[UTILITARIAN VALUE:]

Crash-Test Spec: Solves SD-card and eMMC corruption on unattended factory-floor OLinuXino deployments without expensive external UPS boxes, creating an instant drop-in industrial shield with clean European fab margins.

[TARGET ECOSYSTEM:]

Factory automation integrators, open-source PLC builders, off-grid telemetry engineers, and European embedded labs.

INTERACTIVE 3D TERMINAL & SOVEREIGN CRAFT ECOSYSTEM LINKS

1. Inspect Live 3D Simulation, Crash-Test BOM & 1-Click Claim/Delist:
   https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000004202
2. Commission Verified Modular Sound & 3D Artisans (USD Bounties on Roily):
   https://roily-app.vercel.app/?tab=feed
3. Source Direct B2B Manufacturing & Code Execution (0% Tax on DealOff):
   https://deal-off.vercel.app/?from=qualia&title=DIN-Rail%20Supercap%20Blackout%20Guard%20%26%20Isolated%20CAN-FD%20No
4. Hardware Unit-Economics Essays & Original Books by C.J. Night:
   https://cjnight.substack.com