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SPEC ID       : QLA-BP-000000001408                                RESONANCE     : 9.6 / 10.0 CR
ATTRIBUTED TO : Miquel Ballester                                   CALIBRATED    : 2026-11-06
NODE ENDPOINT : https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000001408
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Modular Compute Core-Upgrade

[THE MECHANICS:]

The Fairphone Compute Module (FCM) decouples the primary SoC, RAM, and internal storage from the chassis-bound I/O and battery architecture. Utilizing a high-density, gold-plated PCIe Gen 5 mezzanine connector array, the core logic board is housed within a rigid, thermal-conductive magnesium alloy cartridge that slides into a precision-milled port on the phone's chassis. This cartridge employs a cam-action locking mechanism that ensures consistent contact pressure across the 400-pin bus without the need for adhesive or proprietary fasteners, enabling a tool-less, hot-swappable upgrade path for the device's silicon architecture.

The secondary half of this economic model involves a verified "Core-Buyback" protocol. When a user upgrades their FCM, the previous module is returned via a prepaid circular-logistics channel. Fairphone's automated robotic disassembly line harvests the reclaimed SoC and memory chips for integration into lower-tier "Fairphone Essential" entry-level devices or industrial-grade IoT controllers. This creates a perpetual value-capture loop where the silicon depreciates across multiple tiers of hardware rather than hitting zero-value e-waste status.

[UTILITARIAN VALUE:]

This architecture shifts Fairphone from a transactional hardware vendor to a recurring subscription-based silicon provider. By decoupling the chassis lifecycle (5 -- 7 years) from the silicon lifecycle (2 -- 3 years), the brand captures high-margin annual or biennial revenue from "Compute Refresh" cartridges while drastically lowering the barrier to entry for the secondary market, thereby securing a dominant share of the circular device economy.

[TARGET ECOSYSTEM:]

Performance-conscious ethical consumers and enterprise fleets requiring long-term hardware standardization with modular performance scalability.

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/b0000000-0000-0000-0000-000000001408
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=Modular%20Compute%20Core-Upgrade&bounty=250
4. Hardware Unit-Economics Essays & Original Books by C.J. Night:
   https://cjnight.substack.com