INTERECHA

DEFENSE QUAD-CHART

Modular power & swapping systems / unclassified capability overview

01 / OPERATIONAL NEED

Tethered 2-6 hour charging stalls missions and creates static signatures.

Mud, dust and trench slurry contaminate exposed high-voltage connectors.

Integration targets: tracked/wheeled UGVs, tactical UAS and microgrids.

02 / TECHNICAL APPROACH

Bolt-on retrofit cowl using native chassis hardpoints; no structural chassis modifications.

Hermetic shutter and self-wiping blind-mate pins.

Expeditionary shelter with pneumatic air-knife, single-axis transfer ram and a climate-conditioned 4-8 cassette buffer.

03 / TACTICAL DESIGN TARGETS

Mechanical swap cycle: < 30 seconds (ram extract/insert) (Kinematic simulation verified)

Total turnaround time: < 60 seconds (ingress to clear) (Target operational budget)

Ingress protection target: Designed to meet IP67 (closed) (Pre-prototype engineering target)

Environmental standard: Designed for MIL-STD-810H (Chamber testing slated Phase 1)

Docking tolerance: +/-25 mm omnidirectional (CAD compliance model)

Contact cycle life target: 5,000+ tactical insertions (COTS terminal spec baseline)

Bus compatibility: 24V / 48V / 72V / 120V DC (Architecture configurable)

Particulate mitigation: High-velocity air-knife purge (Integrated bay feature)

04 / ACQUISITION & ENGAGEMENT

Technology status: TRL 4 - component CAD modeling & laboratory bench validation. Environmental ratings are design targets subject to Phase 1 DVT validation.

Target programs: DLA BATTNET IV, DLA LogTech, Army xTech, DIU CSO.

Primary NAICS 541715; secondary 335999 / 336992.

Interecha LLC - Small Business / Non-Traditional Defense Contractor. SAM.gov UEI NY9HRMSK3F54; CAGE 9WG62.

Request engineering review: system voltage, continuous current draw, vehicle domain and integration constraints.

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info@interecha.com | interecha.com | November 2026