

SUPPLY CHAIN & MANUFACTURING READINESS AUDIT

Sample report — anonymised from a completed engagement

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CONTEXT

Consumer electronics startup, ~8,000 units/yr, assembled in North India with components sourced from India, China and Germany, shipping to 60+ countries from India and Singapore. Audit conducted over two weeks ahead of a planned 3x volume ramp and the company's first senior supply chain hire. Method: BOM and PO review, vendor scorecards, landed-cost teardown on the top 12 cost lines, interviews with founders and the ops team, and one CM site visit.

READINESS SNAPSHOT

Area	Rating	One-line verdict
Sourcing & vendor base	At risk	6 of 11 critical BOM categories are single-sourced; two vendors hold informal pricing with no contract.
Manufacturing & quality	Watch	No incoming QC gate — defects surface at final assembly; ~7% rework absorbed silently in labour cost.
Logistics & fulfilment	Watch	On-time delivery ~40% over trailing 6 months, driven by component lead-time variance, not freight.
Landed cost	At risk	Top 5 cost lines are 14–28% above benchmarked market rates; no re-quote in 18 months.
Compliance & documentation	Stable	CE/FCC/BIS current. Drawing revisions and ECO history poorly controlled — audit exposure, not certification risk.

VENDOR RISK MAP — TOP FINDINGS

- **Enclosure (single source, Shenzhen).** Sole tooling sits with one CM; no tooling ownership clause in the PO. If the relationship breaks, re-tooling is a 10–14 week gap. Fix: negotiate tooling ownership at next order, qualify one Indian fabricator as second source.
- **Custom PCBA (single source, Noida).** Vendor is competent but at ~85% capacity utilisation; a 3x ramp cannot be absorbed. Fix: split build 70/30 with a second EMS now, while volumes are forgiving.
- **Battery cells (broker-sourced).** Purchased via a trading company with no traceability to cell manufacturer or date codes. This is the largest recall exposure in the BOM. Fix: move to an authorised distributor even at +4–6% unit cost.
- **Packaging (two sources, no spec).** Dual-sourced but against a sample, not a drawing — the two vendors ship visibly different output. Fix: one afternoon of spec-writing closes this.

LANDED-COST BENCHMARKS (TOP LINES)

Cost line	Paying	Benchmark	Gap	Lever
Enclosure + tooling amort.	₹412 / unit	₹330–355	+16–25%	Re-quote at 3x volume commit
PCBA (assembly only)	₹268 / unit	₹225–240	+12–19%	Second EMS quote as anchor
Battery pack	₹590 / unit	₹505–540	+9–17%	Direct distributor pricing
Outbound freight (avg)	₹310 / unit	₹240–265	+17–29%	Consolidate to 2 forwarders

Recoverable at current volume: roughly ₹28–41L annually — before any ramp-linked volume pricing.

DFM & QUALITY GAPS

Three design decisions that are cheap to change now and expensive at 3x volume: a hand-fitted gasket that should be die-cut (adds ~90 sec/unit of skilled labour), a screw-boss tolerance that only one vendor's tooling holds, and hand-soldered wire terminations on the battery harness that should move to crimped connectors before any volume ramp. Quality system: institute a 10-point incoming QC gate on the five highest-defect components; current escape rate makes final-stage inspection the most expensive place to find problems.

90-DAY ROADMAP

Days	Actions, sequenced by risk and payback
0-30	Battery sourcing moved to authorised channel · tooling ownership negotiated · packaging spec written · IQC gate live on top 5 components
31-60	Second EMS qualified and first split build placed · re-quotes on top 5 cost lines with ramp volumes as leverage · freight consolidated to 2 forwarders
61-90	Indian enclosure second source through first article · ECO/drawing control process documented · OTD and cost dashboards live, one owner per metric

This is what a real audit looks like — a written diagnosis your team can execute, not a deck. Fixed scope, two weeks.

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