

Risk Register for ISO 9001:2015 Clause 6.1 – Mid-Sized Electronics Manufacturer (including climate-related risks per 2024 Amendment / 2026 expectations)

This register addresses risks and opportunities that could affect the QMS's ability to achieve intended results (consistent product quality, on-time delivery, customer satisfaction, and regulatory compliance). Risks are evaluated on a 5x5 scale (Likelihood × Impact = Risk Score; 1-5 Low, 6-12 Medium, 15-25 High).

ID	Risk/Opportunity Description	Category	Likelihood (1-5)	Impact (1-5)	Risk Score	Planned Actions / Controls	Owner	Target Date	Status
R-01	Key component shortages due to supplier quality failures or insolvency	Supply Chain	4	5	20 (High)	Dual sourcing for critical parts; supplier audits & scorecard; buffer stock strategy	Procurement Manager	Ongoing	In Progress
R-02	Non-conforming PCBs/electronics from inconsistent manufacturing processes	Production	3	5	15 (High)	Enhanced process validation, real-time SPC monitoring, automated optical inspection	Quality Manager	Q3 2026	Open
R-03	Customer requirements changes mid-production leading to rework/scrap	Customer	4	4	16 (High)	Robust contract review process; customer communication protocol; design change control	Sales & Engineering	Ongoing	Monitored
R-04	Regulatory non-compliance (e.g., RoHS, REACH, conflict minerals)	Compliance	3	5	15 (High)	Material declaration database; periodic regulatory horizon scanning	Compliance Officer	Quarterly	In Progress
R-05	Loss of skilled technicians causing production delays and quality drift	Human Resources	4	4	16 (High)	Cross-training program; succession planning; competitive retention package	HR Manager	Q4 2026	Open
R-06	Cyber-attack disrupting production systems or leaking design data	IT/Security	3	5	15 (High)	ISO 27001-aligned controls; regular penetration testing; employee awareness training	IT Manager	Ongoing	In Progress
C-01	Extreme weather events (floods, storms) disrupting inbound logistics or facility operations (Climate-related)	Climate/Physical	4	5	20 (High)	Business continuity plan with alternate routes/suppliers; elevated storage for critical inventory; insurance review	Operations Manager	Q2 2026	Open

C-02	Supply chain disruptions from climate impacts on global semiconductor/raw material suppliers (e.g., drought affecting Asian fabs) (Climate-related)	Climate/Supply Chain	4	4	16 (High)	Geographic diversification of suppliers; long-term contracts with climate risk clauses; increased safety stock	Procurement Manager	Q3 2026	Open
C-03	Increased energy costs and grid instability affecting soldering/reflow processes and product consistency (Climate-related)	Climate/Operational	3	4	12 (Medium)	Energy efficiency upgrades; on-site solar/microgrid feasibility; backup generators	Facilities Manager	Q4 2026	Planning
C-04	Customer and regulatory pressure for lower-carbon electronics (Scope 3 emissions reporting) (Climate-related)	Climate/Market	4	4	16 (High)	Product carbon footprint calculation; sustainable material program; customer ESG reporting	Sustainability & Quality	Ongoing	In Progress
O-01	Adoption of automated AI-driven quality inspection for reduced defects	Opportunity	3	5	15 (High)	Pilot automated vision/AI systems on key lines	Quality & Engineering	Q4 2026	Open
O-02	Growing demand for eco-friendly electronics creating new market share	Opportunity	4	4	16 (High)	Develop green product line with recycled materials & lower energy use	Product Development	Q3 2026	Planning

Notes:

Climate risks (C-01 to C-04) are explicitly included per the ISO 9001:2015 Amendment 1:2024 (Clauses 4.1/4.2) and 2026 expectations. These must be assessed for relevance to your context.

Actions are integrated into QMS processes (e.g., via operational controls, objectives, or improvement programs).

Review this register at Management Review (Clause 9.3) and update following internal audits or significant context changes.

Risk scoring and actions should be proportionate to potential impact on product/service conformity.

This register can be adapted into a spreadsheet for tracking. Let me know if you need a full procedure, opportunity-focused expansion, or integration with ISO 14001.