



GREEN MOUNTAIN
ELECTROMAGNETICS

2026 EMC Pre-Compliance Checklist

(For EVT/DVT builds and before booking FCC, CE, UKCA, or RED testing)

A. Standards & Targets

Confirm your regulatory framework and design targets before proceeding with compliance testing.

- [] Confirm **target markets and environments** (EU, US, UK, other; industrial vs. residential).
- [] Confirm applicable **EMC/CE/RED/FCC/UKCA framework** (e.g., EMC Directive / RED, FCC Part 15, UK EMC and radio regulations).
- [] Confirm **product-family / generic standards** (CISPR 11/32, IEC/EN 61326-1, EN 61000-6-x, and any sector-specific standards).
- [] Decide **Class A vs. Class B** and document the limits you're designing to.
- [] Capture **target margins** (e.g., 3–6 dB below limits for both radiated and conducted emissions)

B. Operating Modes & Loads

Define the worst-case scenarios and configurations that will be tested in the lab.

- [] Define **worst-case operating modes** for emissions (max data rates, max load, all converters active).
- [] Define **representative loads** (realistic power draw, motors/actuators connected, etc.).
- [] Document any **special modes** needed for the lab (service menus, test firmware, logging).
- [] Decide which **configurations must pass together** (options, variants, power levels).

C. Hardware & Layout Review

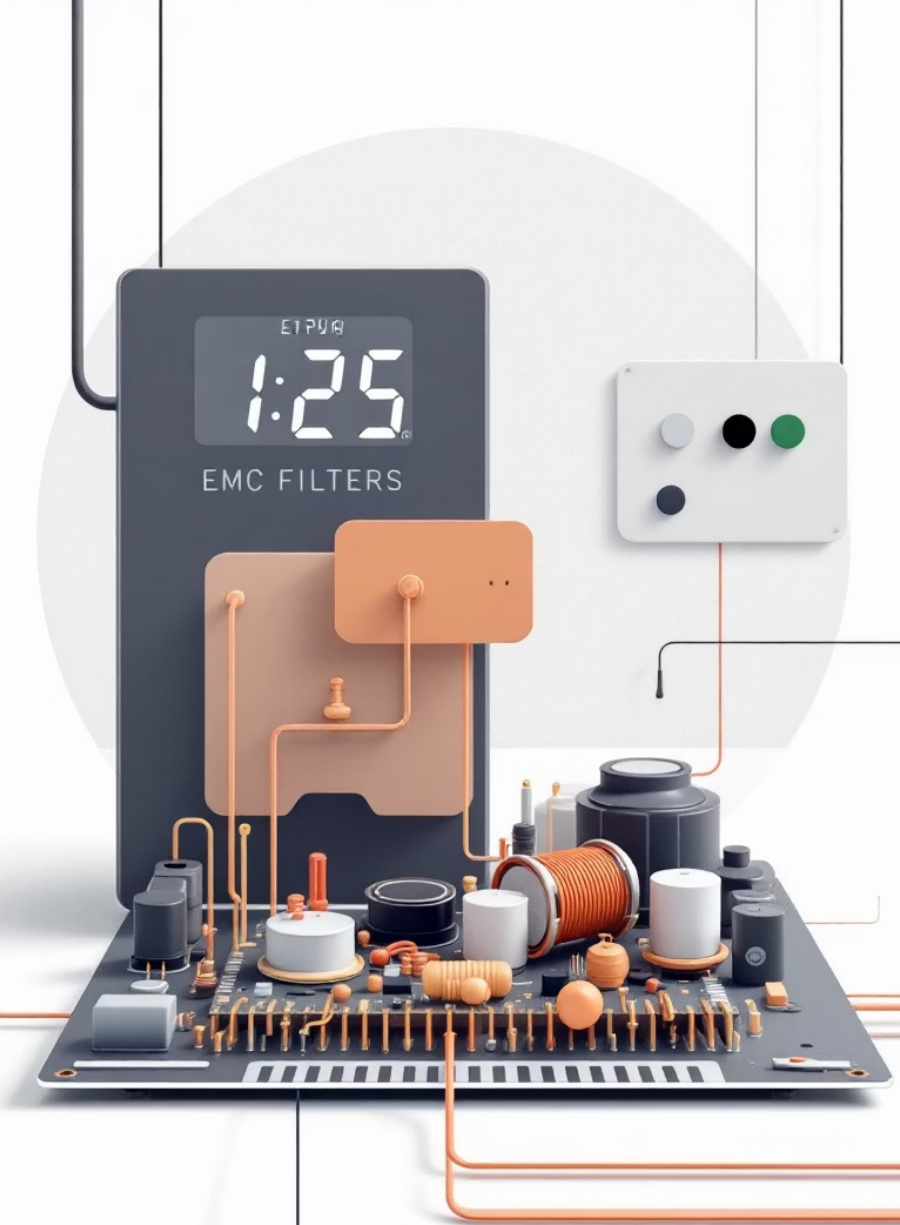
Review critical design elements that impact EMC performance.

- [] Review **high-di/dt loops** and return paths for size and segmentation.
- [] Check **plane splits and cutouts** under noisy circuits and I/O connectors.
- [] Verify **enclosure bonding strategy** (seams, panels, paint, gasketing).
- [] Confirm **component choices for filters** (values, voltage ratings, temperature, tolerances).

D. Cabling & I/O Assumptions

Document all external connections and cable configurations for testing.

- [] List **all external cables** expected in the final installation (mains, DC, I/O, comms).
- [] Define **cable types and lengths** you want used in test (shielded/unshielded, 1 m / 3 m, etc.).
- [] Specify **connector bonding** and strain-relief hardware that must be present during test.
- [] Identify any "**worst-case**" **cable bundles or routing** you want the lab to exercise.



E. Power & Filtering

- [] Verify power supply design and filtering strategy to minimize emissions.
- [] Document **converter switching frequencies** and any intentional spread-spectrum or dithering.
- [] Check that multiple converters are not **stacked in the same narrow frequency band**.
- [] Review **line / DC filter topology** (differential + common-mode) against expected noise spectrum.
- [] Note any **additional ferrites / filters** that may be added in the lab for debug if needed.

F. Lab Planning & Documentation

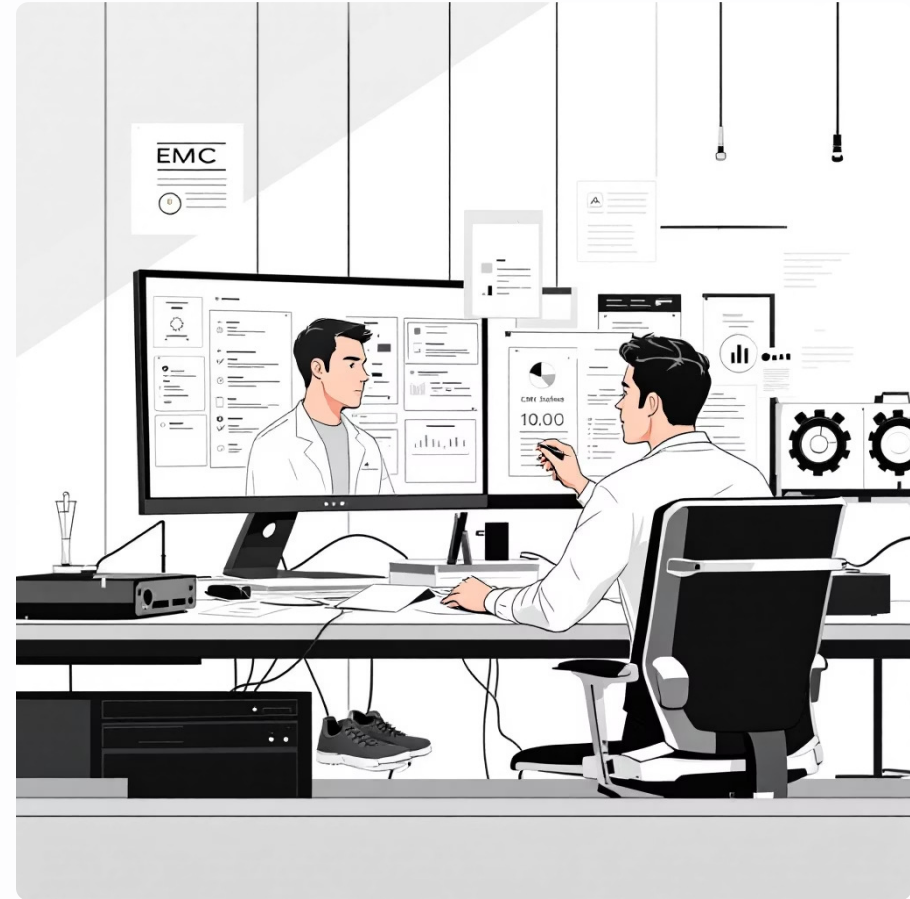
Prepare comprehensive documentation and define success criteria before testing.

- [] Prepare a **one-page EMC test summary**: standards, limits, modes, and special concerns.
- [] Capture **installation notes** (earthing, mounting, auxiliary equipment).
- [] Decide which **pre-compliance measurements** you'll run in-house (if any) before the lab.
- [] Agree internally on "**pass**" criteria and acceptable rework (what's on the table if you're close to limits).

Next step – turn this checklist into a test plan

If this checklist highlights gaps in your **EMC or emissions strategy** for **FCC, CE, UKCA, or RED**, Green Mountain Electromagnetics can help you:

- [] Confirm the right **EMC/CE/RED/FCC/UKCA standards and limits** for your products and target markets.
- [] Prioritize **high-risk areas** before you commit to full lab campaigns.
- [] Plan **pre-compliance scans and formal EMC testing** to support your 2026 launch schedule.



Schedule Your EMC Planning Call

30-Minute Consultation

Discuss your project requirements and compliance timeline

Expert Guidance

Get recommendations on standards, testing priorities, and risk mitigation

Concrete Test Plan

Turn this checklist into an actionable roadmap for compliance success

To discuss your project, contact Green Mountain Electromagnetics to schedule a 30-minute EMC planning call and turn this checklist into a concrete test plan.

Call us today and schedule your consultation: **802.388.3390**



Precision in Compliance, Partnership in Service

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