

Delivery focused EMC Services

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Electromagnetic Compatibility – Confusing? A Dark Art? Optional Extra?

- EMC is a legal requirement.
- It can seem a dark art, RF phenomena are difficult for experienced engineers with other R&D specialisms to appreciate. Even RF engineers may struggle to appreciate how these phenomena manifest parasitically.
- Failure to manage EMC can and does affect the success of your product.

$$\nabla \cdot E = \frac{\rho}{\epsilon_0}$$

$$\nabla \cdot B = 0$$

$$\nabla \times E = - \frac{\partial B}{\partial t}$$

$$\nabla \times H = \mu_0 J + \mu_0 \epsilon_0 \frac{\partial E}{\partial t}$$

A Delivery Focused EMC Service

- Cost Effective.
- Compliance strategy written early, and managed throughout the R&D roadmap.
- Skin in the Game – sharing your enthusiasm for the success of your product.



About UK Electronics

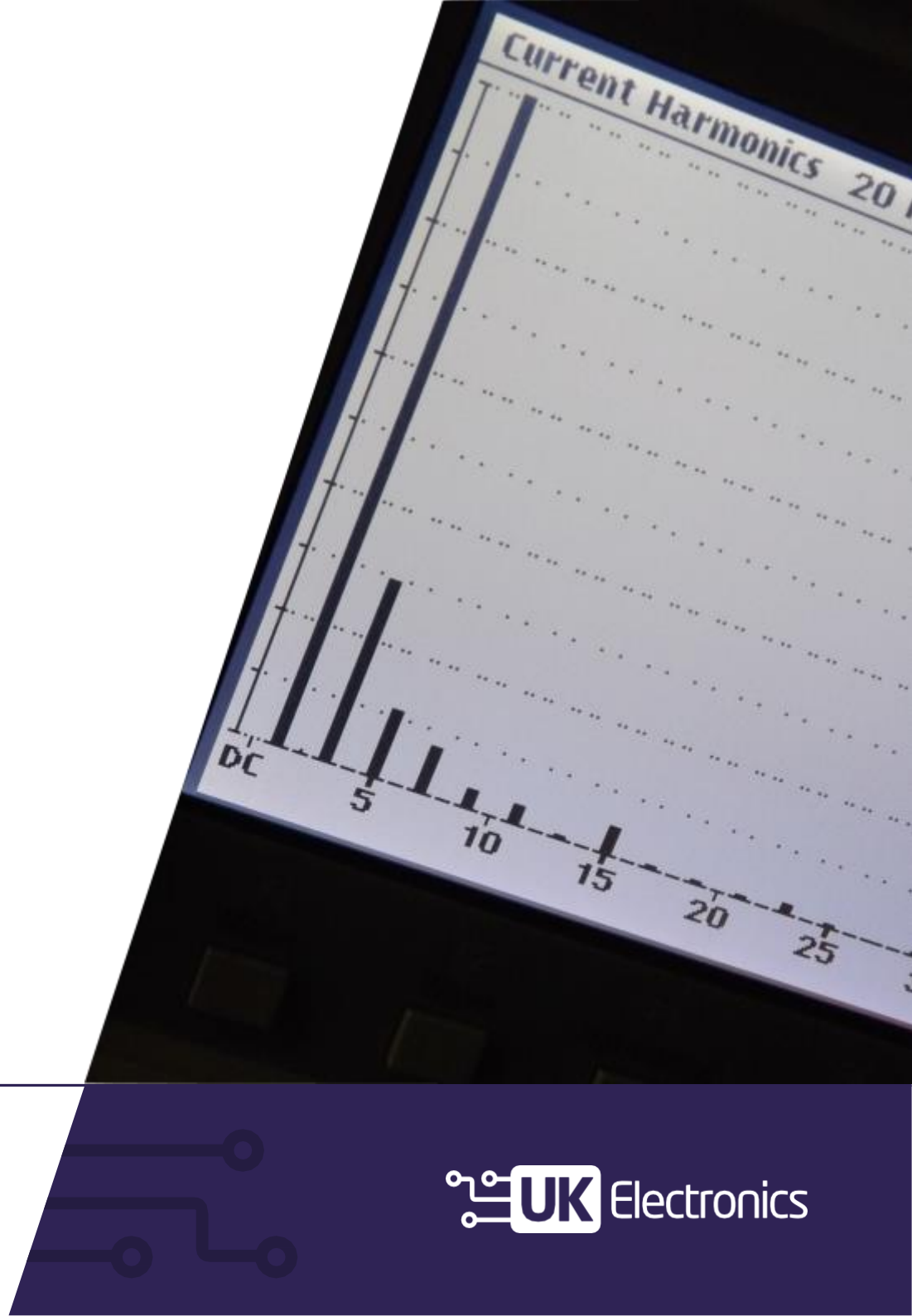
- UK Electronics are a comprehensive contract electronics manufacturer.
- In addition to our core electronics manufacturing business, we have an array of services to support R&D – helping our clients to realise their designs early.
- We have a state of the art manufacturing facility and are able to quote for a variety of work – from low volume specialist instruments to large volume consumer applications.
- If you require any other aspects of our manufacturing or R&D services then please speak with a member of our sales team.



Our Market Sectors

At UK:E, we provide expert electronic services to a range of ever growing market sectors.

- Aerospace
- Audio & Video
- Automotive
- Aviation
- Communications
- Education
- Fire Control
- Industrial
- Instrumentation
- LED Lighting
- Medical
- Military
- Rail
- Scientific
- Security
- Time Management



Why choose UK Electronics

- Compliance Strategy developed with you based on a deep understanding of your product and your objectives.
- A facility geared for close working with your R&D team – with an instrument setup targeted towards early day validation of design idea's.
- Onsite at an electronics manufacturer with onsite prototyping specialists and parts supply.



Testing in the Real World

Refrigeration Equipment Manufacturer

- Product was already fully compliant with pertinent Harmonised EMC standards.

Harmonised standards don't consider self immunity – **it's a quality issue!**

- Refrigeration compressor intermittently causing microcontroller malfunction.
- Using EMC test methods we were able to identify and re-create the problem.
- A fix was fully validated, using a bespoke immunity test based upon prior test.

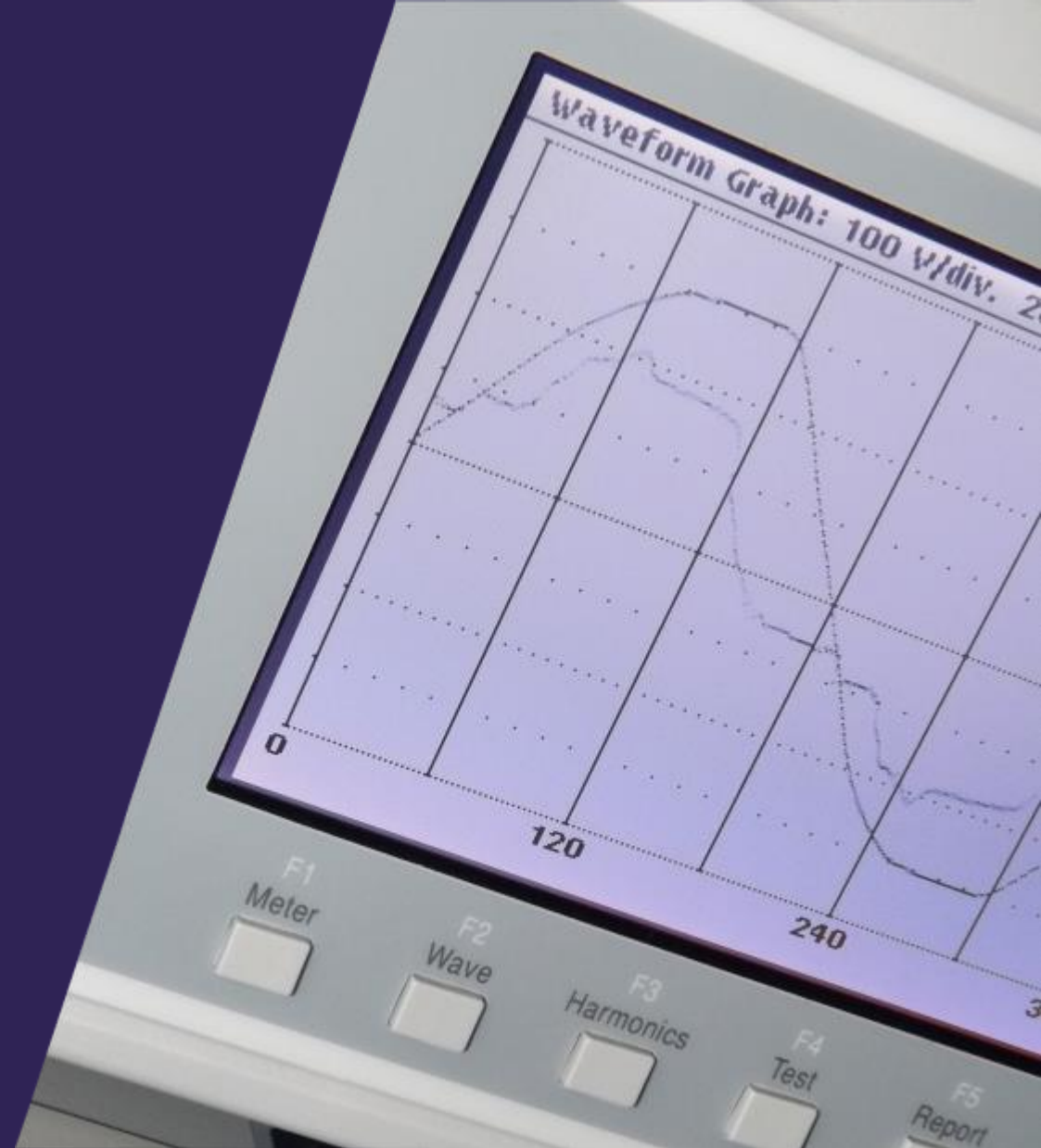
Conclusions

- One of the most cost-effective EMC test facilities available.
- Expert engineers who are on your side and can be considered an extension of your existing R&D team.
- Any independent testing will be managed by engineers experienced at working with these specialists.
- The close relationship exists from strategy to manufacturing quality control.



Do you need clarity on your EMC requirements?

Call us on 0161 626 4117 or visit www.ukelectronics.co.uk for more information.



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 **UK** Electronics