

# *Electrical Compliance*

Getting you  
Worldwide  
Market ready

creating  
trust  
*driving  
progress*



**kiwa**

## What we do

Kiwa Electrical Compliance (KEC) is a well-established UKAS accredited EMC, Radio and Safety testing facility, providing product testing, certification and compliance for the worldwide market. KEC has been supporting customers globally for over 30 years and has two sites strategically placed in Blackwood, South Wales and Brentwood, Essex. Our highly specialised service offering has been formulated simply to get you where you want to be faster, but most crucially with the confidence that you have ticked every box. You can rely on us to leave no stone unturned in our quest for compliance.

Working at the forefront of technology, always, with a comprehensive electronics testing capability, we can test the very latest electronic devices and remain prepared for the next generation of electronic applications. With expertise in-house on EMC, Radio and Safety testing for a diverse range of applications across international markets, at KEC we have your electrical compliance needs well and truly covered.



## Working together

Thorough, and optimised testing programs ensure manufacturers can be confident that their products are compliant, so we eliminate that uncertainty and take care of the associated lengthy procedures.

### **Freeing you up to do what you do best.**

We will help you demonstrate the certification, quality and marketability of your electronic devices and systems, while ensuring that they comply with the relevant regulations and safety standards. Regardless of your industry, customer market or product type, we have the knowledge to guide you and the solutions to add value to your Worldwide Market readiness journey.



## How we do it

We develop complete solutions **tailored solely to the needs of each customer:**

- Identify potential problems at the design and development phase, reducing risk of costly post-production re-engineering and product recalls
- Bespoke basic test programs to meet all budgets
- Run pre-compliance tests and provide production support right through to technical troubleshooting.

Talk to us about your requirements and we'll create a service package to suit you.

***"We look forward to joining you on your Global Market Access journey, whatever stage you are at, together we can accomplish more for your business."***

Theo Skoulikaritis

Business Unit Manager  
Kiwa Electrical Compliance

# How we can help

## Regulatory know how

We offer a wide range of UKAS accredited EMC, radio and safety test services, enabling you to meet the EMC, RED / RER and LVD / Safety Directives / Regulations for CE and UKCA marking

## Confidence in compliance

We provide the required testing and certification services for the UK, EU, USA, Canada, Japan, Australia and New Zealand markets, as well as many other countries

Compliance needn't be an arduous and drawn-out process; we'll show you the best way forward.



## Our Primary Capabilities

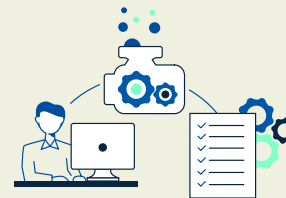
- ▶ EMC Testing
- ▶ Radio Testing
- ▶ Millimetre Wave, Wireless and 5G Testing
- ▶ CB Scheme Electrical Safety Testing
- ▶ IP (Ingress Protection) Testing
- ▶ VCA E-marking of Sub-Assemblies
- ▶ FCC & ISSED Testing and Product Certification Cable Testing
- ▶ On-site Testing



# Our **EMC** testing services

Electromagnetic compatibility (EMC) compliance is a mandatory requirement for numerous global markets and at KEC we provide an efficient route to your CE and UKCA mark, or global certification. Not only do we offer on the spot solutions with our EMC testing services, we also provide access to our experienced engineers so you can pick their brains on all things EMC.

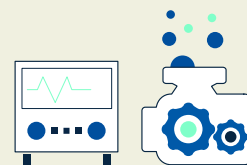
## KEC offers a complete range of EMC services including:



Full-service capability with initial assessment, pre-compliance input, design and development solutions, regulatory compliance advice, gap analysis and fully accredited EMC testing



A Flexible Scope of Accreditation in agreement with UKAS, allowing some standards to be added directly to the UKAS schedule



On-site testing option at your business location for large or high current devices

Working to the latest International and European standards, we test a diverse range of electronic products for many different industries including, but not limited to:

- Communications
- Multimedia
- Domestic
- Commercial industrial
- Automotive
- Medical
- Laboratory
- Oil and gas

Kiwa Electrical Compliance can ensure compliance with European Electromagnetic Compatibility Directive 2014/30/EU. In addition, we are FCC accredited for the USA market (registration No. 654321) and have semi-anechoic chamber and OATS test sites for ISED Canada, plus we are accredited for testing products for Australia and New Zealand.

# Our *Radio* testing services

With a long history of working in the radio testing market, our customers have access to a range of skills through one service. We ensure that your product meets international wireless regulations, giving you complete peace of mind; with on-the-spot advice and solutions from our team of engineers at your disposal compliance couldn't be easier.

Radio Testing services offered by KEC include radio performance evaluation, antenna testing, gap analysis and testing plus certification of radio products.



Wi-Fi



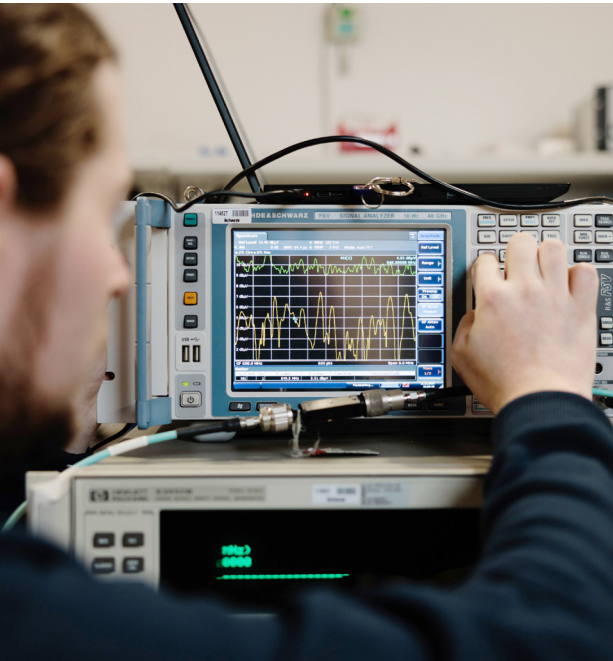
Bluetooth

ZigBee  
DSSS

SRD

Millimetre  
Wave (mmW)

Radar

Satellite  
PositioningGPS & Cellular  
TechnologiesPrivate Mobile  
Radio (PMR)

# Our *Wi-Fi* testing services

In an ever-growing market of electronic devices using different wireless technologies to function, product compliance requirements can feel complex to navigate for manufacturers. At KEC we live and breathe product compliance. We'll get you ready for market launch and perform testing scenarios necessary for you to meet regulatory requirements and get certified.

KEC offers Wi-Fi / WLAN testing for electronic devices using WLAN technology for worldwide market approval. We have access to international certification regimes based on various test specifications and standards, plus we continually monitor developments from within global regulatory domains. Our team of experts know exactly what it takes to get you market ready, and you can count on us to get you there.

## Wi-Fi Testing services available to KEC customers include:

- ▶ 6 GHz WLAN testing (EN 303 687)
- ▶ 5 GHz WLAN including DFS Testing (EN 301 893)
- ▶ 2.4 GHz WLAN testing (EN 300 328)
- ▶ Broadband Wireless EMC Testing (EN 301 489-17)
- ▶ Wi-Fi Testing for worldwide markets
- ▶ FCC & ISSED certification
- ▶ Radio Equipment Directive (RED) / Regulations Testing
- ▶ E-marking of wireless devices
- ▶ Product Pre-Compliance Testing
- ▶ Pre-approved radio modules advice
- ▶ Radio performance evaluation, antenna characterisation and spectrum investigations

# Our **5G** testing services

KEC operates at the forefront of technology, working closely with clients who are developing innovative products for use in existing and future 5G networks. We fully understand the challenges involved with ensuring the compliance of these products, especially as standards don't always keep up with ever-changing technologies.

We offer pre-compliance testing and support for 5G and the latest technologies, with compliance testing to European and worldwide standards as they continue to develop. We specialise in the testing of high frequency millimetre wave devices and commercial applications for mmWave products, including wireless backhaul for high-speed internet connection, radio astronomy, smart meters, and fixed wireless links.



## 5G Testing services available to KEC customers include:

- ▶ Full-service capability including initial assessment, pre-compliance, development and fully accredited radio testing
- ▶ UKAS accredited for testing devices up to 231 GHz for FCC / ISED and EU
- ▶ Radio and EMC testing of 5G infrastructure, such as mmWave backhaul networks and Fixed Wireless Access points

# Our **IP** testing services

Our Ingress Protection testing services determine your products susceptibility to both water and solid particle ingress, an essential step in preparation for bringing any electronic device to the worldwide market.

The level of protection for a product is signified by a number (e.g. IP56) - the first number represents the ingress protection against solid bodies, and the second indicates the level of protection against liquid. Testing is verified in each case by our knowledgeable engineers, whose job it is to inspect the tested item immediately after completion and produce a report.

Water ingress uses high-tech simulation equipment ranging from dripping water, sprays and water jets, through to high pressure immersion testing. Whilst dust ingress testing is performed using a self-contained talc powder circulating chamber; the airflow circulates upward from the bottom, blowing the dust in a circular motion around the unit being tested.



# Our *Electrical Safety testing services*

Evidence of safety or **CB testing** is often a prerequisite for accessing international markets. Our UKAS accredited electrical safety testing services ensure your products are safe, will not cause harm and meet the applicable directives for European and Worldwide markets.

With standards changing over time, compliance is an on-going process, but one that fortunately can be taken out of your hands. The KEC team can help ensure your product compliance needs

are continually kept up to date, leaving you free to focus on your business priorities.

The **Radio Equipment Directive** requires all equipment within its scope to comply with the requirements of the Low Voltage Directive, regardless of its voltage range. We provide UKAS accredited safety testing for the following equipment: laboratory, audio / video, information and communication technology, plus domestic and commercial appliances - including but not limited to pumps, fans, clippers and heaters.

## Electrical Safety Testing services available to KEC customers include:

- ▶ Full-service capability including initial assessment, pre-compliance, development and fully accredited safety testing
- ▶ Bespoke test programs to meet all budgets including test services tailored to component changes affecting a product's compliance
- ▶ Fast-track service allowing clients faster access to market
- ▶ CB scheme is within the Kiwa Group (KEC is recognised under the CB Scheme as a Certification Body Test Laboratory)



# CB Scheme *benefits to customers*

The CB (Certified Body) Scheme is an international network of product certification organisations working in collaboration to support international trade. This is arranged through the mutual acceptance of product test reports and certificates dealing mainly with the safety of electrical and electronic products and components.

**KEC offers safety assessment under the IECCE CB scheme in the following product categories:**

## HOUS

Household appliances, electrical tools and similar equipment under IEC 60335-1

## MEAS

Electrical equipment for measurement, control and instruments for laboratory use under IEC 61010-1

## ITAV

Audio/video, information and communication technology equipment under IEC 62368-1

These primary safety standards, which complement our UKAS accreditation and EMC/radio testing services, ultimately mean we can successfully support your journey to market with utmost confidence.

## How does this *benefit you as a manufacturer?*

- ▶ Complete testing solution for international product safety
- ▶ Acceptance of test reports for national certification in CB Scheme member countries
- ▶ Potential acceptance of test reports by many non-CB Scheme countries
- ▶ Faster and simplified certification process
- ▶ Reduction of overall costs to manufacturers



# Our *Automotive testing services*

Manufacturers are required to obtain type approval for all electronic sub-assemblies, with approval being necessary for both original and aftermarket parts before they can be sold. We offer testing for the automotive sector at greatly reduced lead times and will act on your behalf to obtain approval from the Vehicle Certification Agency (VCA), the designated UK Type Approval authority for automotive products. At KEC, **customer convenience is a priority**. We simplify processes and handle compliance complexities, so you don't have to.

## Automotive Testing services available to KEC customers include:

- ▶ Testing to Regulation 10.06
- ▶ VCA certification
- ▶ E-marking of wireless devices
- ▶ Automotive Short-Range Radar (SRR) – (advanced driver assistance systems)
- ▶ Radiated Emissions 30 MHz – 1 GHz
- ▶ Radiated Immunity 400 MHz – 2 GHz
- ▶ Conducted Immunity BCI 20 MHz – 400 MHz
- ▶ Vehicular Transients 12 & 24V Emissions & Immunity (ISO 7637)



# Why choose KEC?

- ▶ Slot in seamlessly and find the right solution
- ▶ Give confidence in your compliance
- ▶ Get you where you want to be faster
- ▶ Free you up to focus on what matters most to you
- ▶ Keep you informed every step of the way

**Talk to us...** you can reach us here - **[uk.electrical@kiwa.com](mailto:uk.electrical@kiwa.com)**  
tell us about your project and we'll tell you how we can help

The Kiwa logo consists of the word "kiwa" in a bold, white, lowercase sans-serif font. It is positioned on the left side of a dark blue rectangular area, which is separated from the rest of the page by a thin white vertical line. Above this area is a solid red horizontal bar. The right side of the page features a repeating pattern of stylized, light blue human figures with their arms raised, set against a dark blue background.

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