

Your partner of choice

Rohde & Schwarz UK



ROHDE & SCHWARZ



Who we are: Rohde & Schwarz UK

Rohde & Schwarz UK Ltd is an independent sales, service and solutions provider to customers in the fields of test & measurement, radio & TV broadcasting, IT security, radiomonitoring and radiolocation, as well as mission-critical radiocommunications.

Part of leading electronics specialist Rohde & Schwarz Group, we offer customers the best of both worlds – access to extensive local capabilities and expertise, plus the ability to tap into the knowledge and resources of a global organisation.

With sales and support services covering the UK and Ireland, Rohde & Schwarz UK ensures that wherever our customers are, we can support their needs. We value our relationship with customers and believe that person-to-person contact is still the best way to do business. Hence, our aim has been to make sales and support available locally, which is why you may have a dedicated Rohde & Schwarz account manager assigned to your project, and why our product specialists are happy to make customer visits or talk through customer queries on the phone.

Technically competent and with high level applications engineering expertise, our local application and sales staff specialise in solving customers' problems, large and small.

For many of our existing customers, we have become a long-term partner who understands their business and helps them take advantage of new business opportunities. We take pride in our ability to forge long lasting relationships that achieve customers' short and long-term goals.

Rohde & Schwarz UK Ltd has built a solid reputation as a trusted partner and has a proven track record of delivering successful results. But actions speak louder than words, so over the next few pages, we'll show you how ...

A total solution: Mobile Communications

As a market leading supplier of test and measurement and communications systems, Rohde & Schwarz has built a reputation for quality and innovation.

We offer a complete range of mobile communications test solutions, including RF & protocol testers, spectrum analysers and signal generators.

These enable engineers to generate and analyse signals throughout the test cycle, starting with R&D, then integration and conformance testing, followed by live network testing. As a result, we have achieved a strong penetration in the UK mobile communications sector and you'll find our test equipment used by all the major semiconductor manufacturers, handset vendors and mobile network operators alike.

In the UK, Rohde & Schwarz boasts a large local application and development team with experience in 3G, HSDPA, HSUPA, HSPA+, WiMAX and LTE. The benefit for customers is that if there are special requirements that can't be met from our off-the-shelf products, we offer an ad-hoc development service to meet these needs.



Rohde & Schwarz handset test equipment in action

A subject that is closely linked with mobile communications is EMC/EMI. The trend is increasingly to conduct EMC testing throughout the development cycle and EMC is an area in which Rohde & Schwarz has decades of experience, with a comprehensive range of test solutions for compliance and pre-compliance.

Our precision test receivers can be found in the UK's leading test-houses, as well as companies that perform EMC immunity testing and field strength measurements in-house.

Long-term collaboration: Academic links and Start-Ups

Rohde & Schwarz UK maintains close links with leading research centres and university departments in the mobile communications field and RF & microwave fields.

Our involvement ranges from supplying state-of-the-art test equipment for emerging communications research, to enthusing the next generation of students by providing teaching materials and access to our experts as part of Rohde & Schwarz' 'sponsored labs' programme.

When the National University of Ireland Maynooth's Experimental Physics Department needed a vector network analyser to facilitate terahertz quasi-optical research in the 100 GHz region and beyond, they turned to Rohde & Schwarz UK. In addition, University of Surrey selected Rohde & Schwarz test and measurement equipment, including a digital video measurement system and broadcast test system, for a new satellite communications research lab on its campus. The test bed is being used to assess satellite service delivery, with a focus on DVB-S/S2.

Our approach is mutually beneficial. We are committed to encouraging and inspiring the next generation of engineers, whilst our partnership with leading academic research groups helps build Rohde & Schwarz' awareness of emerging fields of electronic and communications research. This knowledge feeds into our product development cycle, so that we can meet academic and industrial needs now and in the future.

As part of our University Relations Programme, we offer work placements for trainee students at our R&D centre in Munich. Trainee students are integrated into existing project teams, where they can begin making an active contribution immediately. For details of our requirements and how to apply, visit:
<http://www2.rohde-schwarz.com/en/Careers/>

Helping Start Up Companies

Some of our largest customers today were once start-ups, and we like to think our flexibility and support has played some part in helping these companies become successful.

We know how difficult it can be for young companies to raise capital to invest in assets. To help with this, we offer all start up companies a range of solutions to make it easier to acquire test equipment. These include: extended product evaluation; a free 1 month trial of products; direct access to UK product management expertise; free on-site training to get you up and running with products; start up rental/finance packages; access to a global pool of ex-demo/refurbished stock.

The first step is to talk to us – we have experience and can find a solution to suit your needs.



Mobile Communication research students in a Rohde & Schwarz sponsored lab at Brunel University

A partner for life: Aerospace & Defence

Rohde & Schwarz is a leading supplier of mission-critical radiocommunications equipment and systems in the UK and around the world.

The Royal Air Force Typhoon, A400M Airbus and Tornado GR4 Aircraft, helicopter platforms Merlin Mk2 and Sea King Mk3 and various Royal Navy and Royal Fleet Auxiliary Vessels use Rohde & Schwarz radio equipment or systems.

For decades, Rohde & Schwarz UK has worked closely with Aerospace & Defence customers, meeting the needs of prime contractors through to the Ministry of Defence and other end users. During this time, we have built up a successful track record of fulfilling sensitive customer projects, on schedule and to specification.

Mission critical systems often require local project management services, with input needed from project conception through to final customer acceptance. Rohde & Schwarz UK offers a range of support capabilities that can be delivered over the long-term, including training, installation, configuration and obsolescence management, on-site support, bespoke telephone or email help desks, logistics and servicing.

Just one example of our 'lifetime' project management capability is the design, implementation and our continuing support for the HF, VHF & UHF secure communications system aboard the Royal Navy vessel, HMS Clyde, which is now in service in the Falkland Islands.

As part of our mission critical portfolio, Rohde & Schwarz supply digital trunked radio systems and an extensive range of secure encryption solutions. In addition, our standard or custom test equipment is used to support a wide range of military systems. Notably, we can provide the extended support times that such systems typically need. Many of our instruments are capable of emulating obsolete instruments from other vendors, with a turnkey service available locally to ensure full compatibility is achieved.

HMS Clyde in service in the Falkland Islands, with Rohde & Schwarz' integrated communications system aboard
(picture courtesy of VT Shipbuilding)



An RAF Rescue Sea King Mk3 helicopter, which employ Rohde & Schwarz' M3AR avionics VHF/UHF communication radios.
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Reliable and trusted: Radiomonitoring & Radiolocation

The Radiomonitoring & Radiolocation Division specialises in delivering products and systems to meet requirements from the ITU Regulatory Authority, the Security and Defence Services, spectrum management organisations and public safety authorities.

Our local capabilities, combined with our reputation as a trusted supplier of turnkey systems, have enabled us to establish long-standing business relationships with many of our customers.

Our experts can design, install and provide full support for bespoke systems that meet customer's specific technical requirements, working closely with contracting partners when necessary. Recent examples of our ability to meet such requirements range from the simple, man-portable radiolocation systems that we developed for the Ministry of Defence, to maritime systems for the Royal Navy and custom-built coastal direction finders for the Maritime & Coastguard Agency.

A long-standing and valued customer of Rohde & Schwarz is the UK's national regulator, Ofcom. One of the most recent tenders won by Rohde & Schwarz UK was the supply of nine transportable direction finders for Ofcom's radiomonitoring and radiolocation service. The new, state-of-the-art systems are designed for unattended operation. Managed by Ofcom's control centre at Baldock Radio Station, Hertfordshire, they interface directly with the organisation's spectrum management database, enabling Ofcom managers to remotely task each direction finder and automatically receive the results.

Rohde & Schwarz UK often collaborates with other companies to put together joint contract bids for turnkey solutions. Another recent successful contract saw Rohde & Schwarz UK supplying communications electronic support measures (CESM) equipment for integration within the combat systems of warships built in the UK and destined for a foreign navy.



Trailer-mounted DF system



A proven track record: Digital Broadcast

Rohde & Schwarz is playing an active role in establishing Digital TV and radio in the UK and Ireland – from the initial specification phase to rollout.

Rohde & Schwarz UK not only supplies an extensive digital broadcast transmitter portfolio, as well as monitoring equipment, but dedicated software, project management, logistics, installation and servicing – in actual fact, our customers can choose to take advantage of a complete turnkey service that ensures an optimum solution, no matter how complex the requirements.

The digital switchover, referred to as ‘one of the largest broadcast engineering projects since the introduction of colour TV’, will take until 2012 to complete in the UK. For the length of the project, Rohde & Schwarz UK will be installing transmitter systems and customised control systems, plus providing monitoring services to Arqiva, which is providing terrestrial infrastructure for the transmission of digital television and radio in the UK.

Rohde & Schwarz has played a key part in the rollout of DVB-T2 high definition TV for the UK’s Freeview service. We supplied and installed the majority of Freeview’s advanced network equipment, achieving approximately 50% UK coverage before the 2010 World Cup.

In Ireland, Rohde & Schwarz UK is playing an equally important role in the rollout of Digital TV and radio services. Among our customers is Ireland’s public service broadcaster RTÉNL, to whom we have already supplied Digital TV and Digital Audio Broadcast (DAB) transmitters.

Rohde & Schwarz’ digital broadcast test equipment is second to none. We offer a comprehensive range of measurement instruments that meet terrestrial, mobile, cable and satellite standards. For example, our multi-standard broadcast test equipment is used by many well-known British set top box manufacturers for in-line conformance testing.

One of the main transmitter stations in the UK with Rohde & Schwarz Digital TV transmitters

Cutting edge R&D: Measurement Technology Centre

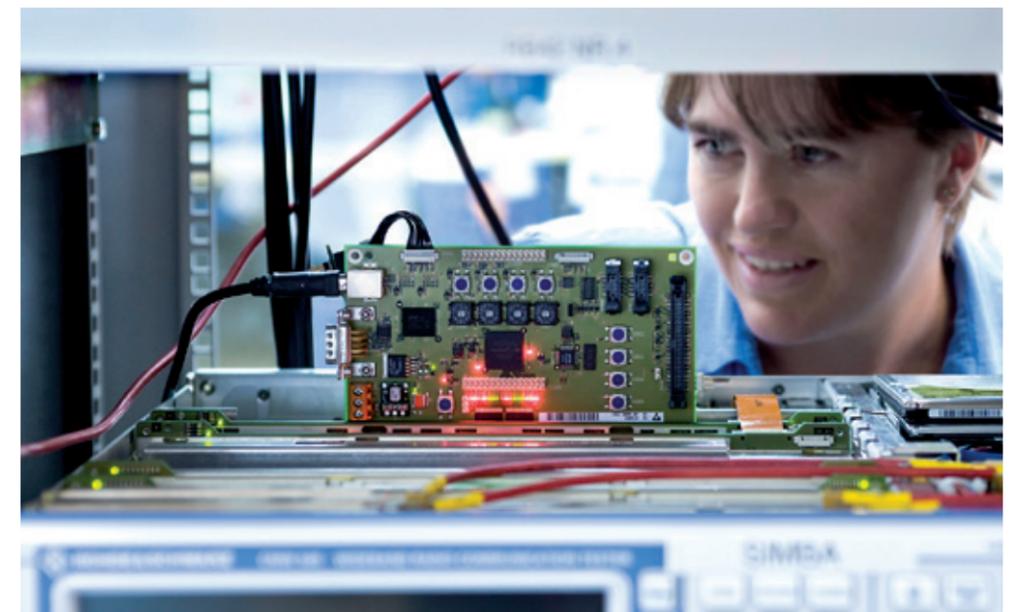
Rohde & Schwarz’ Measurement Technology Centre develops state-of-the-art software for Rohde & Schwarz test and measurement products.

The centre operates as a key software development resource, working closely with our hardware development teams in Germany. Located in Fleet in London’s high-tech belt, the centre also provides an invaluable link with Rohde & Schwarz’ corporate partners. A thriving silicon design industry is on our doorstep, as well as the UK presence of many of the major telecoms companies.

The Measurement Technology Centre operates across a variety of product areas, including mobile communications, radiocommunications analysers and signal analysers. Among our many achievements is the design of the Bluetooth^{®1} functions within Rohde & Schwarz’ radiocommunications analysers, as well as the development of the Rohde & Schwarz Bluetooth^{®1} only tester. Our experts have also co-developed the 3G and LTE protocol stacks for Rohde & Schwarz’ communication testers. In addition to this, the Measurement Technology Centre is responsible for developing software options for a range of Rohde & Schwarz’ signal analysers to cover noise, phase noise, GSM/EDGE, WLAN, WIMAX and LTE measurements.

With an experienced and stable product development team that participates actively in the ETSI standardisation process, the Measurement Technology Centre’s activities benefit Rohde & Schwarz customers worldwide. Our software experts are happy to discuss features or enhancements with UK customers – please contact us directly to find out how our in-house expertise could benefit your project.

Debugging our protocol stack using R&S[®]CMW500 wideband radio communications tester



¹ The Bluetooth name and the Registered trademark are owned by Bluetooth SIG, Inc, and are used by Rohde & Schwarz under licence

A fast response: Service & Support

Rohde & Schwarz has highly trained and well resourced service and support teams in the United Kingdom and Ireland.

Equipped with the latest calibration systems, Rohde & Schwarz UK can service the complete range of Rohde & Schwarz test equipment and also third party manufacturer's products. We are committed to providing a high quality local service, with fast turnaround. An ongoing training programme for service personnel ensures consistent quality, whilst our turnaround times are subject to constant benchmarking and continual improvement.

Service you can rely on

- Worldwide
- Local and personalised
- Customised and flexible
- Uncompromising quality
- Long-term dependability

When you make a service request, we will provide service from start to finish. Just call or visit our website at <http://rohde-schwarz.com/RMA> to register your instrument. You will immediately receive shipping instructions, a service reference number, preliminary service pricing options and the estimated turnaround time via e-mail. Using the RMA process, you can request that we collect your equipment from your company premises, and we'll arrange packaging. Alternatively, customers can opt for on-site calibration of their Rohde & Schwarz equipment and third party manufacturer's products. On-site calibration is convenient and reduces downtime to the absolute minimum.

Customers can use our online tracking service or call us to enquire on the status of a particular calibration or maintenance order; every Rohde & Schwarz UK employee can provide an update on the order in question. Our Fleet warehouse holds replacement instruments that can be made available in the event that a major repair or upgrade to a system is needed.

Rohde & Schwarz UK's calibration centre is part of a worldwide service network, designed to ensure that our customers' technology investments are safeguarded wherever they are in situ. As such, we operate a transparent and clearly communicated service pricing structure – we promise no hidden extras or nasty surprises! All customers of Rohde & Schwarz can take advantage of custom rates, tailored calibration, and service and maintenance contracts.

Partner of choice: Milestones

Whilst solving our customers' business challenges, we have ranked up numerous achievements over the years, just a few of which are listed below.

1980s

- First-ever GSM simulator contract placed in the UK
- 500 VHF/UHF transceivers delivered to air traffic management specialist, NATS
- Major contract for AF signal generators and RF voltmeters supplied to Ministry of Defence

1990s

- Project management and implementation of trunked radio solution for Tyne & Wear Metro
- UK digital television network is monitored by R&S®MPEG systems for launch of Digital TV
- Ministry of Defence acquires R&S®general purpose and HQ radio test sets
- Radio test sets purchased as the 1st and 2nd line radio communication testers for the RAF and Fleet Air Arm
- Radio receivers sold to Ofcom's entire field engineering team
- Royal Navy supplied with a fully integrated communications system
- Motorola factories start to use our digital radio test sets
- Project management and implementation of high power DVB transmitter systems for UK's 1st digital TV network

2000s

- Royal Navy takes delivery of R&S®LSA fully integrated radio systems
- Supply, installation and project management of the BBC's nationwide digital radio network expansion
- Ministry of Defence purchases microwave signal generators for general-purpose microwave applications
- Samsung supplied with the first full RF and protocol conformance systems
- R&S®M3AR avionics radio contract for RAF Tornado GR4s
- Rollout of first digital TV network in Ireland

Since 2010

- First DVB-T2 transmitters installed for High Definition Television on Freeview
- R&S®XK4100 software-defined radio being implemented into the UK coastguard's MF/HF Communications upgrade
- Delivery of trailer-mounted R&S®DDF225 Direction Finding systems to Ofcom, the UK's ITU Regulatory Authority
- UK's first commercial 500 GHz millimetre VNA solution installed at Flann Microwave

We are proud to continue to serve many of the above organisations today.

Configuring the calibration rigs



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