Defending Queen & country



The UK military and defence market is integral to the UK economy and the country is a strong contender in the marketplace on an international scale. Michelle Winny, Editor of Electronics talks to UK defence specialist **Hypertac** about the importance of this market segment and the company's innovations

espite continued reports of spending cuts to Government budgets, Defence is still a key market, both, on an international basis and also for the UK.

According to the UK defence statistic in 2010: "the UK was the third largest military spender, accounting for nearly 4 percent of worldwide military spend, behind the USA and China. The UK was sixth, based on purchasing power parity comparisons, after USA, China, India, Russia and Saudi Arabia."

The defence market in the UK is integral to the country's economy and as it is a strong market place it is a key focus for companies such as Hypertac, as Bill Henderson, Business Development, Director at Hypertac explains: "At present the UK is still the largest Defence and Aerospace market for Hypertac."

Discussing the importance of the military market in the UK and the technology developments the company is currently involved in, Henderson continued: "Within the Hypertac Europe Group, the UK has been designated as the Centre of Excellence for the Defence and Aerospace market."

"This is due to the consideration that the high level of experience and expertise gained in serving the large UK Defence and Aerospace customer base, allowed the COE to drive the development of standard product platforms, as well as the custom design-ins throughout Europe.

"Our UK site is also at the forefront of a variety of technologies within the Hypertac group including EMI Filtering, Transient Protection, High speed, RF and very High Power.

"Our approach to this market, which offers custom solutions that benefit the user, allows our UK customers to enjoy a more tailored solution with simplified export control procedures", Henderson added.

Proud to be best of British

The UK has long held an international acclaim for being a centre of design excellence for many industries including solutions for military and defence and so has a strong future industry as Henderson comments: "The UK has an enviable reputation for its engineering excellence and I believe our avionics and defence industries can compete with the very best in the world. I would suggest that the future continues to be very positive in this regard.

"Our manufacturing expertise does not often receive the exposure and accolades that it deserves but we do have world class companies throughout the UK who are all world leaders in their chosen markets.

"Our unique Britishness often means that we are perhaps a little more comfortable just performing with excellence and not promoting this as much as we should", Henderson added.

Developing solutions for out-in-thefield applications, which are mission critical requires highly advanced technologies that are as close to 100 percent fail safe as possible and is why it is vital that customers have a direct relationship with the manufacturer.

Some of the current projects the company is working on include The Eurofighter aircraft. Henderson advises: "The avionics suite within the aircraft uses the JN1123 connectors provided by Hypertac throughout as the main interface rack and panel connectors. These are often EMI Filtered and Transient Protected and include high speed digital and RF coaxial signals.

Fully Integrated Interconnect System



Bill Henderson, Business Development Manager at Hypertac

The unique ability of the Hyperboloid socket contact technology and its very low fretting corrosion characteristic makes this ideal for the harsh environment on board this aircraft while satisfying the need for very high electrical performance.

The company has also recently established an RF Coax capability, as Henderson advises: "we have proven the RF performance of the Hyperboloid socket contact up to 40GHz. A major development has been the ability to use this socket contact technology for both the inner and outer contacts of the coaxial connector allowing all the benefits of this technology to be available within a very high performance, high frequency coaxial connector for the first time.

"The development of a standard RF connector product range is now under development following the successful evaluation of this technology by some of our military avionics equipment customers", Henderson added.

These latest developments are taking the company's technology developments across the industry, targeted at heavy duty military applications to new levels of industrial application.

Of the future trends and drivers of the industry Henderson advises: "As always, the industry wants interconnection systems with improved signal integrity able to transmit signals at ever increasing data rates and frequencies, within ever more electromagnetically polluted environments.

"They want all of this in as small a space as possible, with a fit- and- forget approach to reliability and maintenance.

"Systems are becoming ever more complex with increasing power supply demands and higher levels of connectivity meaning that the humble connector of old is now fast becoming a complex electronic subsystem in its own right," Henderson advises.

The company is continually evolving and working towards growth and developments in its core fields of excellence as Henderson went on to conclude: "Continuous improvement in High Power, High Frequency RF and High Speed Data, not to mention higher degrees of Transient Protection are all strong focus areas for our technologists ensuring that the needs of the future can be satisfied by our products and capabilities."

Interconnection technology is the vital link between the varying electronic components in all devices and an experienced company such as Hypertac is key to developing technology solutions for the demands of the military and defence market and the future of this technology in such applications.

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