

Established in 2014, Spacepath Communications (Spacepath) was formed following the acquisition of the Stellar amplifier business from e2v Technologies. The new company is based in Hook and manufactures RF high power amplifiers, redundant system controllers and sub-systems. Based in the UK, it is dedicated to the supply of quality high power satellite amplifiers and provides comprehensive customer services and support globally.

Backed by extensive industry experience, the company's satellite professionals provide in-depth engineering assistance, unparalleled customer service and worldwide technical support spanning North America, Europe and Asia Pacific

Expectations for the future

SpacePath Communications was established in the UK as a privately-run company that manufactures a range of high power satellite amplifiers and systems, including solid state amplifiers (SSPAs), high-power travelling wave tube amplifiers (TWTA), redundant system controllers and sub-systems. The company's products provide lightweight, efficient power solutions for all uplink frequencies, and are popular among satellite industry professionals around the world. Amy Saunders spoke with SpacePath's Director of Business Development, Colin Bolton, to find out more about the company's development, the amplifier market, and SpacePath's expectations for the future.

Question: What can you tell us about the founding and development of SpacePath to where it stands today? Colin Bolton: SpacePath was founded in April 2014. The company was formed when it acquired the 'Stellar' satellite uplink product range from e2v Technologies. e2v had been in the satellite uplink amplifier/system business for over 30 years, so there was a large installed equipment base worldwide and a diverse range of proven, outdoor amplifier products designs.

The new manufacturing facility was set up in Hook, Hampshire. Our first initiative was to review each existing product design and implement product enhancements. Through the product evaluation process, it was clear that the existing product range needed expanding to cater for new market opportunities, while offering a viable European-based alternative to the two main US-based suppliers for high power satellite amplifiers and systems.

The company now combines the proven performance of the Stellar range of amplifiers with new product innovation and first-class, international customer support.

Question: Can you provide an overview of SpacePath's key products, end-user markets and geographical presence? How have these evolved since the company's inception?

Colin Bolton: Following the initial acquisition of the Stellar product range, we embarked rapidly on two major product development initiatives:

- New outdoor, uplink amplifier designs which incorporated the latest lightweight power supply technology, enabling a new generation of small, high efficiency Ku, DBS and Ka-band amplifiers to be added to the existing range.
- Providing high power RF solutions for the fixed Earth station market based on a new range of indoor rack-mounted uplink amplifiers. The amplifiers and redundant systems incorporate the latest touch-screen



user interface controls together with comprehensive web browser capabilities for advance monitoring and support.

The company's focus on updating and expanding our product offering has created wide customer interest in the transportable DSNG market, where small, lightweight, high efficiency products are required. For the fixed station market. comprehensive range of high power, indoor-mounted amplifiers and redundant systems has opened up many new worldwide opportunities. Our customers are also supported by a network of sales and service partnerships across Europe, the Middle East, Africa and Asia-Pacific regions.

Question: SpacePath launched a new range of amplifiers in May 2016 – what do these new products bring to the portfolio, and how do they improve upon what's already available on the market?

Colin Bolton: The launch of our small, lightweight Ku and Ka-band outdoor amplifiers has opened up new opportunities for SpacePath in the transportable uplink market. The combination of size, weight, efficiency and ultra linear performance also differentiates us from other products already available elsewhere. If you compare our new SAT-BUC 150W 13.75-14.50GHz with the latest solid state technology on the market, the benefits are clear. While some leading products may possess parallel weight (9kg), size (183x348x132.5mm) or low power consumption (850Va max.), none match us on every statistic.

Question: Where does SpacePath see itself in the market compared to its competitors, and how does it differentiate itself?

Colin Bolton: We are mindful that there are other communication solutions like 4G bonding and the increase in fibre infrastructure, which fragment the size of the accessible market available to us. For this reason, it is important that we are able to offer the most competitively priced, efficient uplink amplifier designs to our customers.

Being smaller than our main competitors allows us to be more agile and better able to respond and react to a changing market place. Our breadth of experience and engineering expertise also enables us to develop innovative, competitively-priced, high performance solutions for each market segment.

As we are the only independent high power satellite amplifier company designing and manufacturing in Europe, and not part of a systems integration business, we can serve all commercial and military system integrators and enduser customers with neutrality. Given our location, we believe that we have a geographical market advantage, particularly across EMEA regions.

Question: In March 2016, SpacePath and Polarity formed a new joint venture company called Stellar Satcom. What is the background behind this development, and what progress has the new company made towards its goals?

Colin Bolton: The joint venture with Polarity provides us with a strong US presence and a partner that has extensive experience in designing small, lightweight, high efficiency power sources. After our acquisition from e2v, we inherited a large installed customerbase for Stellar satellite amplifiers in the US, particularly within the mobile DSNG markets. Since launching the joint venture with Polarity, we now have an established sales and support channel for those customers, and we can also now collaborate on new amplifier designs.

The uniqueness of this relationship also allows us to manufacture Stellar satellite amplifiers in the US, allowing access to their large domestic market.

Question: The satellite communications sector has been developing at a rapid pace in recent years, with the rise of high frequency bands, high throughout satellites (HTS) and small satellites. How have these trends affected the amplifier sector?

Colin Bolton: Given the rate of change in the satcom market, the ability to adapt and rapidly develop new products is key to survival and growth. We are seeing a growing demand for higher frequency, high power amplifiers. The use of high power Ka-band in the HTS market is a good example of this. Having products to meet these applications opens up market opportunities in Europe and the

Middle East. Our Ka-band product offering ranges from a small lightweight, low cost 10W Ka-band amplifier, to the latest air and liquid cooled 500W product designs.

Question: What are the greatest challenges and opportunities present in SpacePath's markets, and how will the company address them going forward?

Colin Bolton: As we grow, it is vital that we continue to keep the close connection we have established with our end-user customers. This provides us with the feedback necessary for us to adapt in the changing market we play in. With the new, emerging Q (43GHz) and V (48-53GHz) band uplink applications, it is important that we continue to invest in new products to meet these new opportunities.

Question: What's on the horizon for SpacePath for the rest of 2016 and beyond?

Colin Bolton: Our short term plans include adding more redundant and power combined sub-system designs, to support the use of our amplifiers. These new system designs offer IP based connectivity, enabling customers to remotely monitor and control operations from different locations.

On the amplifier front, we are also close to completing the development of a 100W, 17.3-18.4GHz (DBS Band) small, lightweight outdoor amplifier design. We will also be introducing a new range of high power 1.25kW (C, Ku and DBS bands) indoor and outdoor amplifiers for deployment in fixed Earth stations, used for DTH applications.

