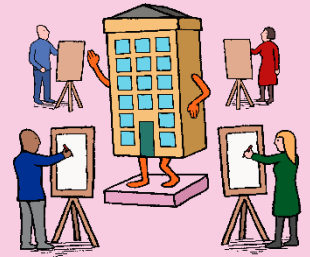


Montanaro BLOG

Filtronic: a closer look at a space enabler

By Harriet Topham

April 2026



Introduction: from Space Deep Dive to site visit

A few months ago, we published our [Space Deep Dive](#), asking the question: is space the next investable frontier? The work explored a rapidly evolving ecosystem that is already very real, with companies across the value chain actively designing, building and scaling technologies that enable satellite connectivity, global communications and a wide range of space-enabled applications, including in energy, defence and sustainability. We mapped how value is created across this ecosystem and highlighted a number of businesses operating behind the scenes, quietly underpinning the sector's growth.

Visiting Filtronic

Last week, we had the opportunity to travel to Filtronic's new purpose-built facility at NETPark in Sedgfield, County Durham, providing a chance to see these technologies and processes up close. I attended alongside our sector specialist, Andrea.

The day began with a presentation from the well-regarded senior leadership team, including Nat Edington (CEO), Michael Tyerman (CFO), Andy Tucker (Engineering Director), Mark Black (COO) and Antonino Spatola (CCO), followed by a tour of the facilities. This brought to life how different parts of the space value chain operate in practice, from engineering design through to high-specification manufacturing.

Seeing the operations first-hand provided a level of insight that goes beyond a typical meeting with management. It allowed us to better understand not only the technology itself, but also the complexity of the manufacturing process and what is required to scale production in practice.



What Filtronic does – and its partnership with SpaceX

Filtronic designs and manufactures high-frequency radio frequency (RF) components, which are used to transmit data between ground stations and satellites. In simple terms, its technology helps amplify and transmit signals from ground stations to satellites, enabling data to be sent efficiently and at scale. The business has been gaining increasing attention in recent years, particularly following its partnership with **SpaceX**, whose Starlink programme uses a network of low Earth orbit satellites to provide high-speed internet and connectivity globally, particularly important in areas without traditional infrastructure.

Filtronic's facility officially opened in March 2026, with a number of key customers in attendance, including **David Finlay, Senior Director of Finance at SpaceX**. During our visit, we were shown footage from the opening, where David highlighted Filtronic's world class engineering strength and its ability to scale production effectively, reinforcing the importance of the relationship between the two companies. This is particularly relevant given the scale of SpaceX's Starlink network, which serves 10 million customers across 150 countries.

The new site significantly expands manufacturing capacity, increases cleanroom space and supports further growth. The scale of investment, and the fact that it has been self-funded, also reflect the strength of the business and the growth it has seen in recent years.

During the visit, we spoke with Andy Tucker, Engineering Director at Filtronic, who highlighted how the company's intellectual property is rooted in its engineering capability and the strength of its relationship with SpaceX. The partnership appears to be highly collaborative, with both sides benefiting from a shared focus on performance and scalability.

Enabling data transmission

One of the points reinforced by both our Space Deep Dive and the site visit to Filtronic is that the space economy is not just about getting satellites into orbit, but also about enabling the reliable transmission of data. Satellites are the visible infrastructure, but the value lies in the data they generate and transmit – from internet connectivity to video and real-time communications.

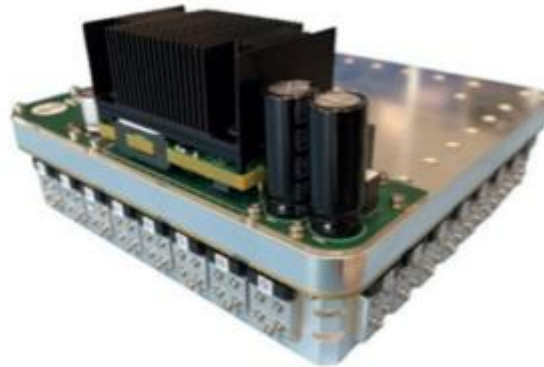
Filtronic's technology sits at a critical point in the system. Its high-frequency components – particularly solid-state power amplifiers (SSPAs), increasingly based on gallium nitride (GaN) – are used in ground station gateways to strengthen and manage signals between ground and satellite systems, enabling reliable communication links.

The company is now beginning to broaden its role. While it has traditionally focused on these ground-based systems, it is adapting its technology for use on satellites themselves, including miniaturising and refining products to meet the requirements of space-based applications. It has started to win early contracts for hardware that sits directly on satellites, signalling initial progress beyond its core market.

Moving up the frequency spectrum

A consistent theme throughout the visit was the industry's progression towards higher frequency bands as lower-frequency spectrums become increasingly congested. Filtronic has evolved from supplying traditional telecoms frequencies, where earlier systems were designed to handle relatively straightforward data transmission – i.e. basic connectivity such as voice communications and broadcast signals. However, building on its expertise in this area, the company was able to accommodate notable demand from SpaceX in "E-band", a higher-frequency part of the spectrum that allows significantly more data to be transmitted. Developing this capability took several years and required a rigorous qualification process, reflecting the complexity of operating at these frequencies. To put this into context, satellite networks today support far more data-intensive use cases, from high-speed broadband and enterprise connectivity to real-time streaming and global internet access across millions of users.

↓ Gallium arsenide (GaAs) E-band SSPA (previous generation)



More recent designs use gallium nitride (GaN), a newer semiconductor material that allows amplifiers to operate at higher power and efficiency than previous generations.

Higher frequency bands such as “V” and “W”, into which Filtronic is also extending, enable significantly more data to be transmitted at once – for example supporting high-capacity gateway links for satellite constellations, handling large volumes of user traffic, and enabling more data-rich applications such as video, cloud services and next-generation connectivity. In practical terms, moving higher up the frequency spectrum allows significantly more data to be transmitted, supporting faster speeds and the ability to serve a growing number of users simultaneously.

This does not come without challenges. Operating at higher frequencies makes both design and manufacturing more complex, requiring greater precision, specialised materials and carefully controlled processes. For ground-based systems in particular, the focus is on generating enough power to transmit signals over long distances while maintaining their quality. Filtronic’s approach has been to develop these capabilities in a way that is not only technically robust, but also scalable, with a strong emphasis on consistency and improving production efficiency.

How Filtronic’s markets are evolving

Filtronic’s end markets are changing. In the past, the business focused on telecoms customers. Today, growth is coming from satellite constellations and defence applications, supplying the hardware that enables global connectivity as well as systems used in defence communications and radar.

The role of different customer types is also evolving. SpaceX, as a vertically integrated operator, develops much of its technology internally, but has effectively validated Filtronic’s capabilities

in E-band – an area where the company’s engineering expertise is highly specialised – and has stepped back from its own development in this part of the spectrum.

More broadly, however, many operators are taking a different approach. As constellations scale, there is an increasing tendency to outsource specialised components in order to accelerate deployment, rather than building everything in-house. This dynamic, combined with Filtronic’s niche expertise, creates a clear role for the company within a broader and expanding customer base.

Commercial and defence dynamics

From a commercial perspective, there are two main types of opportunity. On the one side are large satellite constellations, such as Starlink, which involve higher volumes and faster-moving programmes as networks are built out at scale. On the other are government and defence contracts, which are typically slower to develop, more complex and require lengthy qualification processes, but can offer longer-term visibility once secured.

At present, Filtronic is more heavily exposed to the commercial side, with SpaceX accounting for the majority of revenue. Production for SpaceX is expected to ramp from mid-2026, with volumes increasing as these programmes scale. The company is also building a pipeline in defence and other space programmes, which could provide greater diversification. Alongside its partnership with SpaceX, Filtronic has relationships with a range of customers across the space ecosystem, including the European Space Agency, Airbus and Viasat, as well as major defence contractors and government-led programmes in the UK and internationally.

This is already beginning to come through in recent contract wins. Over the past year, Filtronic has secured a number of agreements across these areas, including a contract with another US customer for amplifier technology supporting satellite communications, a multi-year programme linked to a European low Earth orbit constellation, and a contract with a major European defence contractor for electronic sensor applications. The company has also received UK government funding through the National Space Innovation Programme (NSIP) to develop next-generation high-power amplifiers. Taken together, these wins highlight the breadth of demand for high-frequency RF technology across commercial, defence and space markets, and point to a growing pipeline beyond its core relationship with SpaceX.

Scaling manufacturing in practice

The visit brought into focus the operational reality of scaling this type of business. Manufacturing at high frequencies is complex and capital intensive, with individual machines costing hundreds of thousands of pounds. The facility is designed with capacity to support further expansion as demand grows and is already operating continuously to maximise utilisation of installed capacity. Delivering consistent quality at scale requires both specialist expertise and disciplined execution, reflected in the recent growth in headcount, particularly among RF engineers.

The importance of enabling technologies

Ultimately, the visit reinforced a simple but important point. The space economy is often associated with rockets and satellites, but it relies just as much on the less visible technologies that make those systems work. Companies like Filtronic sit within this layer, providing the components that enable data to be transmitted reliably between ground and space.

These are not easy areas to operate in. Designing and manufacturing at these frequencies requires specialist expertise, significant investment and carefully controlled processes, which limits the number of capable competitors. As the sector continues to grow, these enabling technologies will remain essential to ensuring that satellite networks can scale and operate effectively.

A final thought is that with investor excitement building ahead of SpaceX's forthcoming IPO – forecast for later this year – investors can gain exposure to this exciting opportunity today by investing in one of the UK's leading space companies, which is playing a key role in the underlying space infrastructure.

The views expressed in this article are those of the author at the date of publication and not necessarily those of Montanaro Asset Management Ltd. The information contained in this document is intended for the use of professional and institutional investors only. It is for background purposes only, is not to be relied upon by any recipient, and is subject to material updating, revision and amendment and no representation or warranty, express or implied, is made, and no liability whatsoever is accepted in relation thereto. This memorandum does not constitute investment advice, offer, invitation, solicitation, or recommendation to issue, acquire, sell or arrange any transaction in any securities. References to the outlook for markets are intended simply to help investors with their thinking about markets and the multiple possible outcomes. Investors should always consult their advisers before investing. The information and opinions contained in this article are subject to change without notice.

Montanaro Asset Management Ltd | 53 Threadneedle Street | London EC2R 8AR

T: +44 20 7448 8600 www.montanaro.co.uk