

Forefront launch is abfab for Cambridge

Forefront RF, a Cambridge-based fabless semiconductor company, is set to change the way global smartphones, wearables and IoT Devices are designed.

The Forefront RF chip enables connected devices to operate across the increasingly wide range of 3G to 6G mobile telephony frequency bands.

Forefront RF's cancellation technology redesigns the radio frequency (RF) system in a wireless device, enabling manufacturers to simplify the design and delivery of frequency agnostic products, whilst reducing cost and supply chain waste.

Forefront RF was founded in 2020 by Dr Leo Laughlin whose academic work in this field is widely cited, together with Julian Hildersley who brings 30 years of experience in the development and marketing of ground-breaking RF mobile phone technologies.

Phil O'Donovan who as Managing Director and co-founder helped CSR plc become the Bluetooth chip market leader, has joined the founding team as company Chairman.

Laughlin commented: "The growth in mobile networks driven by the ever-increasing demand for data means that available frequency bands vary from region to region and, using today's technology, has driven the need for region-specific smartphone variants each including multiple RF components. The space consumed within each smartphone adds cost and leads to inefficiencies in the supply chain."

The chip uses Forefront RF's Adaptive Passive Cancellation (APC) technology, similar to that used in noise-cancelling

headphones. Forefront RF's APC chip replaces the banks of RF filters and switches with a low cost, tuneable RF circuit. The component uses embedded software to maintain the accuracy of unique passive self-interference cancellation circuits. This enables a smartphone's receiver to "hear" the weakest signals while transmitting at full power.

The company, based at St John's Innovation Centre, has raised an initial £1.5 million investment from a syndicate led by Bristol-based Science Creates Ventures and includes Foresight Williams Technology, BGF, and The Cambridge Angels. This first round of investment represents a strong vote of confidence in the company and will enable Forefront RF to recruit the world-class team necessary to accelerate the launch of its products.

Harry Destecroix, General Partner at Science Creates Ventures, commented: "We are extremely impressed by the Forefront RF team and their technology, and are delighted to be working with them and our co-investors. Together, we will enable the company to accelerate its impact on this important global industry."