



## Soitec extends partnership with UMC to provide leading engineered substrates for industry's first 3D IC solution for RF-SOI

- *Soitec and UMC have successfully partnered for over 11 years delivering leading RF-SOI solutions*
- *The partnership is now being extended to upcoming 3D IC solutions for 5G and future wireless systems operating in millimetre-wave frequencies and beyond*

**Bernin (France), June 13, 2024** — Soitec (Euronext Paris), a world leader in designing and manufacturing innovative semiconductor materials, today announced the expansion of its partnership with UMC, a leading global semiconductor foundry company, to bring to the market the industry's first 3D IC solution for Radio Frequency Silicon-on-Insulator (RF-SOI) technology for the 5G era.

UMC's 3D IC solution for RF-SOI technology addresses the challenge of incorporating more RF front-end modules – critical smartphone components that transmit and receive data – into a single device by vertically stacking dies and utilizing wafer-to-wafer bonding technology. It reduces die size by more than 45%, enabling customers to integrate more RF components to address the greater bandwidth requirements of 5G.

Soitec RF-SOI substrates play a vital role in providing the mechanical and electrical performance needed to ensure large volume manufacturing of UMC's solution with no degradation of radio frequency performance.

Building on a collaborative relationship that dates back to 2013, Soitec and UMC are proud to highlight their latest partnership in RF-SOI technology, delivering key innovations that drive the performance and efficiency of 5G applications worldwide.

*"We are very proud of our longstanding partnership with UMC, which now extends to the industry's first 3D IC for RF-SOI. The combined experience and expertise of UMC and Soitec places us in a strong position to drive innovation to meet the future challenges of energy- and volume-efficient RF Front Ends. By extending the domain of RF-SOI solutions to 3D integration, future smartphones will accommodate new frequency bands envisioned for the 5G-Advance and 6G era, while making room for new features to come. At the same time, future XR and other IoT devices will benefit from compact RF Front-Ends, delivering enhanced data rates while ensuring energy consumption efficiency,"* said Jean-Marc Le Meil, Executive Vice President of the Mobile Communications Division of Soitec.

*"Soitec has been a key partner for UMC in driving advances in wireless communications over the years with their state-of-the-art engineered substrates. Leveraging our strong partnership with Soitec, UMC's innovative 3D IC solution for RF-SOI has generated significant interest from customers as they seek to integrate more RF components in 5G-enabled wireless devices without compromising on form factor or performance. Going forward, we are excited*



*to collaborate further with Soitec to target the 5G mmWave market and beyond,”* said Raj Verma, Associate Vice President of Technology Development at UMC.

### **About Soitec**

Soitec (Euronext - Tech 40 Paris), a world leader in innovative semiconductor materials, has for more than 30 years developed cutting-edge products that combine technological performance and energy efficiency. From its global headquarters in France, Soitec is expanding internationally with its unique solutions. The company occupies a key position in the semiconductor value chain, serving three strategic markets: mobile communications, automotive and industry, and smart devices. Soitec draws on the talent and diversity of its 2,300 employees, of 50 different nationalities, across its sites in Europe, the United States and Asia. More than 4,100 patents have been registered by Soitec.

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### **Contact**

Media relations: [media@soitec.com](mailto:media@soitec.com)

Investors relations: [investors@soitec.com](mailto:investors@soitec.com)