

Defence, Security & Space and FORUM, PARIS 2024



New Semiconductor technologies for future integrated defence and space applications

- United Monolithic Semiconductors (France /Germany) SPEAKER : Hervé BLANCK ✓



Biography:

Since 2017, Hervé Blanck is senior manager responsible for the technology and packaging developments. He oversees the development and qualification of new GaN and GaAs front-end technologies for RF applications as well as various packaging platforms suitable for single functions up to integrated front-end. Before that he held various positions inside UMS and the central research lab of Thomson-CSF, and was directly involved in the development of several GaAs and GaN MMIC technologies. He holds a PhD degree from the University of Strasbourg and was a visiting scientist at MIT in 1989-90.

Talk title:

New Semiconductor technologies for future integrated defence and space applications

Abstract:

New systems require ever increasing efficiency and integration in order to meet their more and more challenging goals. This requires the development of new power front-end technologies with improved power performance, in particular regarding power density and efficiency. In addition, these technologies must be compatible with advanced packaging platforms that will allow the integration of multiple functions, using multiple chips on different materials. This will allow the fabrication of fully integrated front-end products. This requires solving several challenges starting from the material and transistor optimization, followed by environmental protection and assembly techniques. The presentation will go through recent achievements and future objectives to present an overview of the current status and horizon of RF front-end technologies.