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## WORK Microwave Leads Development of System Test Bed for ESA's IRIS<sup>2</sup> Secure Satellite Constellation

*Holzkirchen, July 2025* – WORK Microwave, a leading provider of advanced RF and satellite communication technologies, has been selected by the European Space Agency (ESA) as the prime contractor to develop a system validation test bed for the upcoming IRIS<sup>2</sup> satellite constellation. The project is carried out in close collaboration with Fraunhofer IIS and Joanneum Research.



IRIS<sup>2</sup> (*Infrastructure for Resilient, Interconnected and Secure by Satellite*) is the European Union's next-generation multi-orbital (LEO, MEO, GEO) secure connectivity system. It is part of the EU Secure Connectivity Programme, established under Regulation (EU) 2023/588 and adopted by the European Parliament and Council in March 2023. The system aims to provide resilient satellite-based communication services for governmental and institutional users, complementing existing and future national and European assets under the GOVSATCOM initiative.

The goal of the project is to design, develop, and deploy a comprehensive system test bed at ESA facilities. This platform will emulate the behavior of the IRIS<sup>2</sup> communication architecture under realistic deployment scenarios and assess the



performance of radio communication links. A key focus is on enabling real-time simulation of 5G Non-Terrestrial Networks (NTN), including advanced features such as satellite handovers and complex channel conditions.

The test bed will also allow the integration of third-party 5G user equipment (UE) and base stations (gNodeB) via an analog intermediate frequency (IF) interface. WORK Microwave is responsible for the overall integration and verification of the test bed, as well as the development of the IF interface.

This collaboration represents a major step toward advancing Europe's independent and secure space-based connectivity capabilities.

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## About WORK Microwave (www.work-microwave.com)

Headquartered in Holzkirchen (near Munich), Germany, and comprised of four product lines — RF and Optical Satellite Communication, Defence Electronics, Satellite Navigation and Sensors & Measurement — WORK Microwave leverages over 35 years of experience to anticipate market needs and apply an innovative and creative approach to the development of its technologies while maintaining the highest standards for quality, reliability, and performance.

WORK Microwave's Satellite Communication Product Line develops and manufactures highperformance, advanced satellite communications equipment in RF technology, optical/laser communication and virtualized (DIFI) solutions for IP networks, DTH broadcast, NGEO constellations, governmental services, earth observation and science mission, teleport management, Optical Ground Stations and many more applications.

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