Our Expertise

Wireless Design

Our long and successful track record implementing radios from small form factor base stations to macro solutions, makes us an ideal partner for addressing the challenges for 5G radio implementations.

Hardware Design

We have experienced design teams to implement radio electronics and powering, and the seamless co-operation between software, mechanics, and RF teams ensures optimal product performance. Also, our good long-term relationships with key component and test equipment vendors help to find optimal solutions.

Software Design

Our experts have excellent know-how in how to implement radios by combining FPGA and hardware IP designs with embedded software running on the latest SoC. In addition, we provide expertise in software solutions such as transport and routing protocols, security, and virtualized applications.

Mechanics Design

Our strong expertise in designing mechanics for diverse industries enhances the skill set needed for designing complete base stations. Our product concepting, product development, and manufacturing support services are tailored to meet unique customer requirements.

Testing & Verification

Our comprehensive internal laboratory capabilities and partnerships with external test houses ensure required coverage for product testing.

Bittium

Connectivity to be trusted.
www.bittium.com/engineering-services

Your Engineering Partner for 5G Radio & Telecom

Bittium

Your Partner in 5G Radio & Telecom

Bittium is your trusted engineering partner for 5G radio development. Our capability to develop complete base stations is unique, including RF and other hardware, FPGA, software, and the required system integration, verification, and validation. Our capabilities include developing also virtualized software running on standard hardware.

Innovation Since 1985

Our expertise is based on a proven track record of over 35 years in product and solution development for secure network infrastructure and OEMs. We are forerunners in telecom technology development and provide our expertise for open and virtualized RAN development.

We have carried out over 300 engineering projects for radio elements throughout different mobile network generations.

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Founded in 1985	300+ Engineering Projects
Listed on Nasdaq Helsinki (BITTI)	Headquartered in Finland
Offices in Finland, Germany, and the USA	

Selected Offering

World-Class RF & Hardware Design Services

The 5G wide RF operating range, with bands ranging from 400 MHz to the millimeter wavelengths, bring new challenges for RF design including support for massive MIMO. Also, the ever-increasing demand for smaller and energy efficient radios is important from the customer standpoint. Our long and successful track record implementing radios from small form factor base stations (small cells, pico and micro) to macro solutions, makes us an ideal partner for addressing the challenges for 5G radio implementations.

In addition to RF design, we have expert teams for mechanics, hardware, and software development, providing a complete skill set to develop radios with optimal performance in an environmentally friendly form factor.

Our good long-term relationships with key component and test equipment vendors help to further enhance the development efficiency. Also, we have excellent knowledge of transferring designs into the customer's own or partner manufacturing sites.
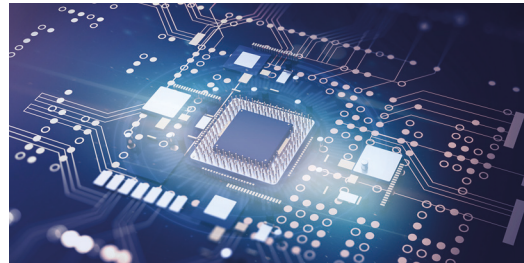
Comprehensive Solutions & Integration Services

Are you looking for an engineering partner to design and implement the complete system solution? Or a partner to integrate a system with assets from different sources? Are you looking for cloud-based virtualized solutions?

We are your trusted partner for improved time-to-market solutions.

Our diverse skill set covers the entire design process: from design conception, specification, and implementation to verification, integration, and validation for the entire software and hardware system all the way to production. We know the importance of system testing and software optimization when developing reliable telecom products.

Extensive Competence in Software & FPGA Design

We have a proven track record in developing various radio products that are based on either 3GPP standards, including LTE and 5G, or radios with proprietary protocols.

Our experts have know-how in how to implement radios by combining FPGA and HW IP designs with embedded software running on the latest System-on-Chips (SoC). In a typical implementation, there is a need to use multiple operating systems with a hypervisor solution running on the SoC. Seamless co-operation between our hardware and mechanics design teams ensures that system design and product level requirements are mastered also.

In addition to radio product designs, we provide expertise in software solutions such as transport and routing protocols, security, and virtualized applications including RAN operation and maintenance solutions.