

SAF in Brief

SAF Tehnika JSC is among world's top microwave carrier-class licensed point-to-point manufacturers, publicly traded in NASDAQ (SAF1R), ISO certified, covering spectrum 1.4 – 38 GHz and unlicensed 24 GHz. SAF radios correspond to standards of FCC, ETSI, IC and RUS (“Buy American”). SAF Tehnika products are entirely designed & produced in Europe and distributed in more than 100 countries worldwide, among the key accounts being *China Telecom*, *US Army*, *Telefonica*, *JAB Wireless*, *VimpelCom (Telenor Group)*, *BSNL / MTNL (India)*, *Yota* and *Global Crossing (USA)*.

How it started?

In 1995 radio engineer Didzis Liepkalns, now CTO, wanted to install a telephone line at his house in a distant countryside. At that time fixed telephone services were not available in that part of Latvia, so Didzis decided to build his own telephone communications line with the help of microwave technologies. Soon enough the word about his invention reached the ears of people and companies in the neighbourhood, and Didzis launched his own private business.

In the late 1990s Didzis met colleagues who understood the potential of his product sales in Latvia and beyond. Since its foundation in 1999, SAF Tehnika has succeeded in becoming an international player by fusing the unique knowledge and experience of its founders both in state-of-the-art microwave radio data transmission technologies and organization of production, sales, installation and technical support. Started by around 10 people, today SAF Tehnika has a team of more than 180 employees, each of whom contributes to success of the Company.

Facts about the company

- Greenfield start up company, founded in 1999
- 13+ years experience in microwave field
- Full-Cycle Production and R&D
- Publicly traded on NASDAQ OMX Riga
- HQ, Manufacturing and R&D - Riga, Latvia (Europe)
- Employees – over 180
- Quality assurance – ISO 2001 certificate
- Corresponds to FCC, ETSI and IC standards
- WISPA member (Wireless Internet Service Provider Association)
- Covering spectrum 1,4-38GHz and Licence-Free 24GHz
- Capacities up to 720 Mbps Full-Duplex (per radio link)

QR code



Company milestones

- 1999 Company foundation (10 employees);
- 2000 Introduction of PDH (CFM) product line;
- 2003 ISO 9001 certification;
- 2004 IPO - Initial Public Offering;
- 2006 SDH (CFQ) product line launch in the market;
Number of SAF Tehnika employees reaches 160;
- 2007 Implementation of a new automated modern manufacturing line;
- 2008 Launch of 108Mbps radio - SAF CFIP product line;
Buy-out of the capital shares of SAF Tehnika Sweden AB by its management;
- 2009 SAF Tehnika 10 years anniversary;
Launch of CFIP Lumina Full Outdoor radio (366Mbps);
Launch of CFIP Phoenix Hybrid Split Mount System (366Mbps);
- 2010 Sales growth up to 99 markets
Launch of the unlicensed SAF FreeMile FODU (100Mbps)
- 2011 Launch of CFIP Marathon 1.4 GHz and CFIP Phoenix M split mount
Foundation of SAF Tehnika Middle East in Saudi Arabia
Becoming the member of Wireless Internet Service Provider Association
CFIP Lumina production launch in Curitiba, Brazil
Foundation of subsidiary SAF North America in Denver
SAF Tehnika launches an Online Store for Unlicensed SAF FreeMile products www.saf-lastmile.com (Within EU countries)
- 2012 Launch of SAF FreeMile 5.8 GHz MIMO
- 2013 Launch of **SAF Spectrum Compact** - the world's first powerful handheld licensed microwave spectrum analyzer, designed specifically for comfortable outdoor use.
Opening of **US Headquarters in Denver, USA**
Launch of **SAF Integra** – integration of next generation microwave radio with high and super high performance antennas into a single unit

Company

SAF Tehnika, JSC

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Financial Year: 1st July, 2012 – 30th June, 2013

SAF Tehnika Overview

SAF Tehnika JSC is a Latvian (Europe) designer, manufacturer and distributor of digital microwave data transmission equipment. *SAF Tehnika* products provide wireless backhaul solutions for digital voice and data transmission to mobile and fixed network operators, data service providers, governments and private companies.

Know-how in modern wireless data transmission technologies, creativity in solutions, accuracy in design, precision in production and logistics make *SAF Tehnika* a unique designer and manufacturer of point-to-point microwave data transmission equipment. Located in Northern Europe, *SAF Tehnika* managed to acquire and consolidate valuable locally available intellectual resources of the microelectronics industry and spread its presence to 100 countries, covering all relevant market segments worldwide within just a decade.

Flexibility and customer-oriented business philosophy are the core concepts of *SAF Tehnika* research and business development. Our specialists are always following up-to-date industry trends to successfully integrate cutting-edge technologies in our all-inclusive portfolio of modular split-mount and full outdoor systems. Standard to high capacity TDM, Hybrid TDM & Ethernet and 4G/LTE networks-ready Native Ethernet/IP data transmission equipment for licensed and license-free frequencies provides hundreds of supported, customer-tailored product variations, all linked together by a fully featured SAF Network Management System.

Affordable broadband connectivity and mobile communications have become the backbone of the modern world as well as an important business tool providing decisive impact on competitiveness of our customers. In response to these trends we are constantly striving to promote mobility and openness as the defining features of our company. *SAF Tehnika* has proved time and that it can swiftly adapt to the challenges of the changing environment and the ever-increasing pace of technological innovations.

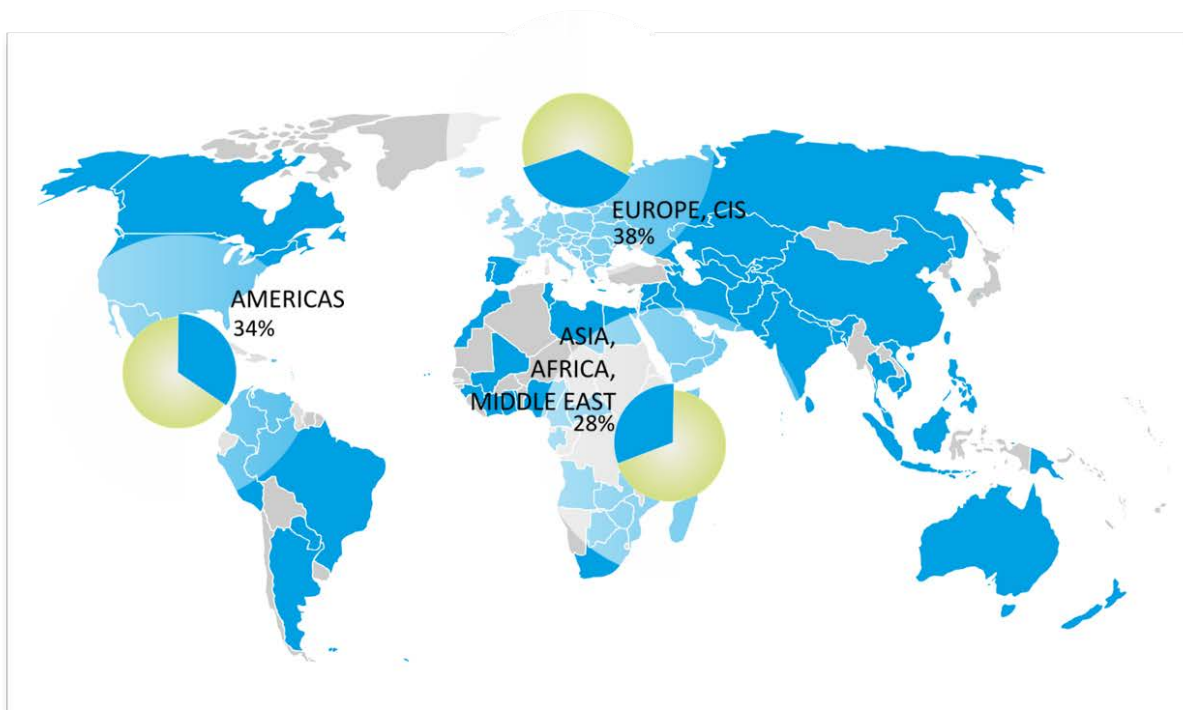
The slogan Customized microwave solutions™ incorporates our commitment to an industry-rare capability to design and implement specific, user-adapted application techniques and features for our products to ensure that they are fit for planned expansion or fine-tuning of existing 3G/HSPA backhaul, complex carrier-grade LTE network migration, deployment of advanced future-proof wireless infrastructure in underserved markets or a redundancy solution in last-mile connections.

Mobile and alternative operators, PTT/fixed operators, broadband access providers, ISPs, government, utility companies and many others across the world have already chosen to work with *SAF Tehnika* as a company of reliable and energy efficient products, unparalleled delivery terms and worldwide warranty service, as well as extremely effective and direct management-level communication. Because broad expertise for a fair price is our proposal for time & money-sensitive customers that value investments in high class service and sustainable solutions to stay fit for the emerging age of green and smart economies.

SAF Tehnika team of direct sales representatives in Europe, North and South America, Africa, South and East Asia, together with a broad worldwide network of authorized partners are always ready to assist and provide up-to-date information on the available product options and solutions.

SAF Tehnika regional sales FY 11/12

SAF Tehnika FY 11/12



SAF Regional Sales FY 11/12

Products

SAF Tehnika is a designer, producer and distributor of wireless microwave data transmission equipment. The Company offers comprehensive and cost-effective hybrid broadband wireless connectivity solutions for digital voice and data transmission to fixed and cellular network operators, data service providers, governments and private enterprises as an alternative to cable communications channels.

The Company offers two main product lines - licensed and unlicensed. Licensed product line CFIP, providing up to 366Mbit/s capacity per radio is the perfect solution for a user looking for higher than PDH E3 capacity without need for STM-1 capacity. The other one is unlicensed SAF FreeMile product line consisting of new generation license free 5.8/17/24GHz ISM band radios for Ethernet packet data and E1 voice transmission. The new radios combines excellent features like interference-free operation, high availability, Carrier grade full duplex capacity with no cost of licensing and quick installation, traditionally associated with ISM radios. SAF FreeMile radio also provides user-friendly Web browser based management interface and straightforward installation process to ensure trouble-free experience for any user.

In July 2013 *SAF Tehnika* made a step forward in the evolution of full outdoor packet microwave radio systems. SAF Integra is an unbelievably light, energy efficient carrier-grade system that exemplifies and outstanding return on smart engineering – the synergy of high competence in radio electronics and materials science. Integration of next generation microwave radio with high and super high performance antennas into a single unit translates into a lower total cost of ownership, as well as less time spent on the installation site, and better reliability of the link even in densely served areas.

In March 2013 *SAF Tehnika* launched SAF Spectrum Compact - the world's first powerful handheld licensed microwave spectrum analyzer, designed specifically for comfortable outdoor use. This device is a must-have tool for any microwave radio engineer performing on-site work. Spectrum Compact is an ultra light and easy to use measurement solution for the 6 - 24 GHz licensed microwave frequency bands. Designed specifically for comfortable outdoor use by network engineers in a variety of challenging environments, this battery-powered device is a must-have tool for any microwave radio engineer performing equipment installation or gathering data for site planning purposes. The LCD touchscreen ensures smooth and intuitive onsite use, and the SMA connector* allows the Spectrum Compact to integrate with any vendors antenna or waveguide system.



CFIP Lumina FODU



SAF CFIP-108 FODU



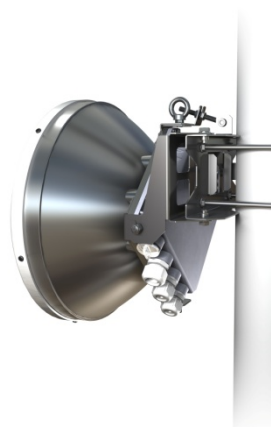
CFIP Phoenix (M) Split Mount



SAF FreeMile FODU



SAF Spectrum Compact

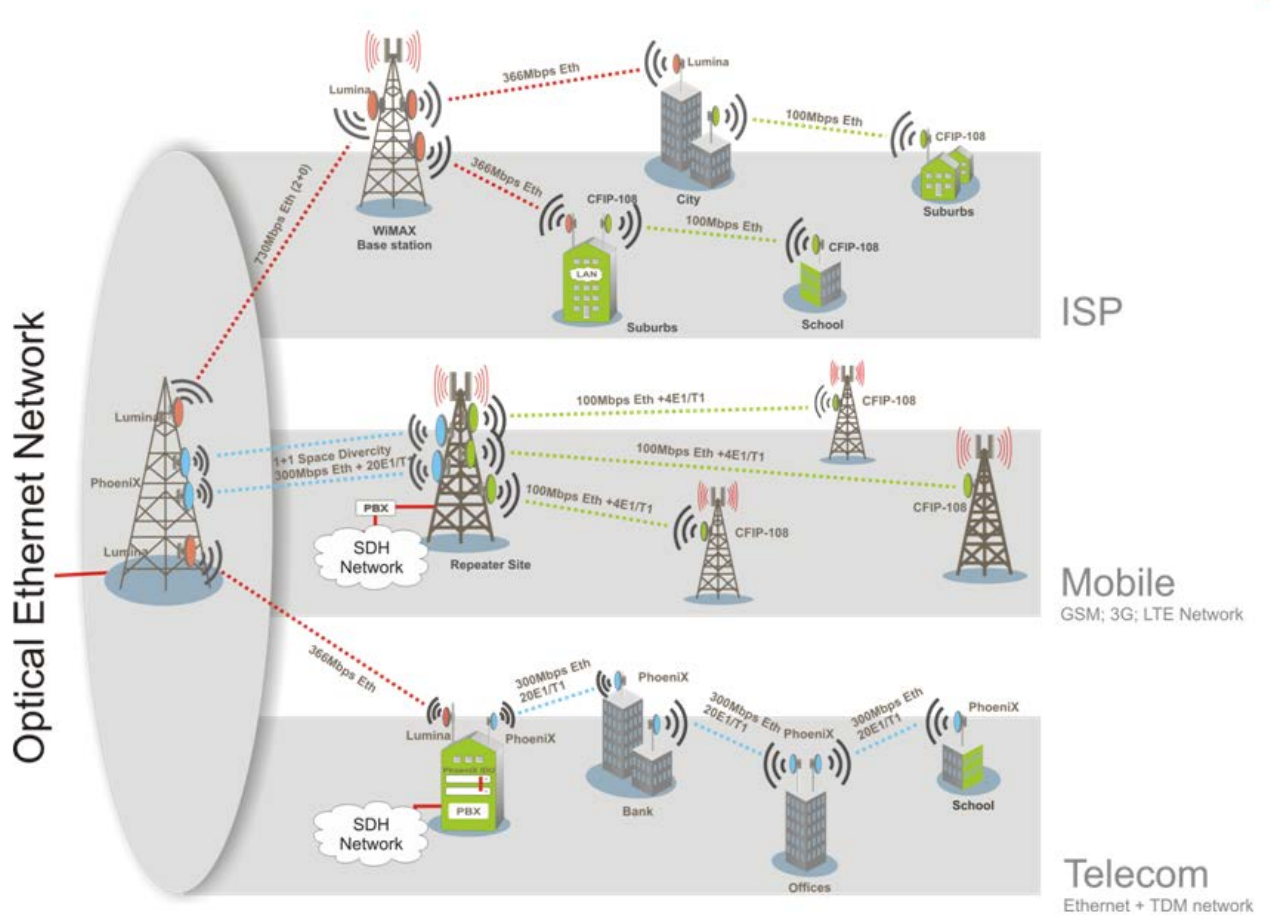


SAF Integra

The latest product launches

- 06.03.2012 SAF FreeMile 5.8 GHz MIMO
- 25.10.2011 SAF FreeMile 24 GHz launch in North America
- 01.03.2011 SAF CFIP Marathon for industrial applications 1,4 GHz
- 28.02.2011 SAF CFIP Phoenix M for telecoms 6 – 38 GHz
- 03.11.2010 SAF FreeMile Unlicensed Radio 17 GHz and 24 GHz
- 05.10.2009 SAF CFIP Phoenix Split Mount System 6 – 38 GHz
- 09.09.2009 SAF CFIP Lumina FODU – full outdoor radio 6 – 38 GHz
- 05.03.2013 SAF Spectrum Compact spectrum analyzer
- 07.08.2013 SAF FreeMile 5.8GHz Gigabit

Solutions



SAF Tehnika wireless systems are commonly used for both public and private networks and they are perfect for voice and data communications. SAF Tehnika wireless systems can be used not only in mountainous and woodland areas, where it is expensive or impossible to deploy wires, but also as cost-effective alternatives to wired solutions in urban areas.

Flexibility and easy installation of SAF Tehnika equipment makes it preferable for Cellular, Fixed, ISP, Corporate, Local Government and other private or public network.



Produced
in **Europe**

Customized Microwave Solutions 