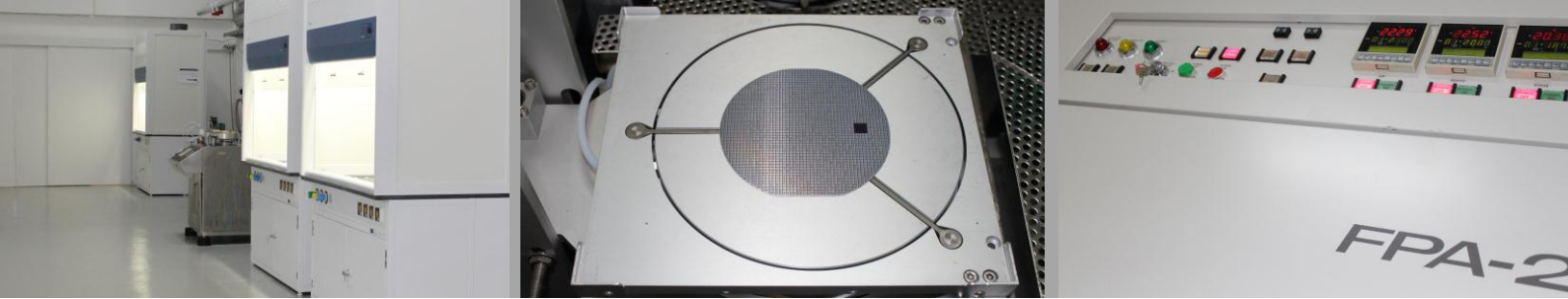


Time and Frequency Control Products

radio & microwave



DESIGN AND MANUFACTURING OF PRECISION FREQUENCY DEVICES

MICROSAW provides expert design and manufacturing of frequency-related microelectronic components for Radio Frequency and Microwave Industries. The core of our business is development of extreme performance SAW Filters, Microwave Filters, SAW Resonators and SAW Delay Lines that meet specific customer's requirements.

COMPANY INTRODUCTION

The flexibility of an independent company

MICROSAW Oy company is privately owned, Headquarters in Finland, Riihimäki. The founder of the company is an engineer who has accumulated experience through long-term work in the Electronic Industry. On-site management allows provide solutions quickly in close cooperation with customers and partners. Our philosophy is based around stability and independency of the company, quality of products and services.

APPLICATIONS

Many years of experience in developing the most effective solutions for the Customer's applications

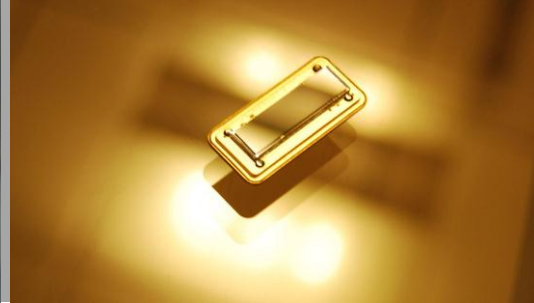
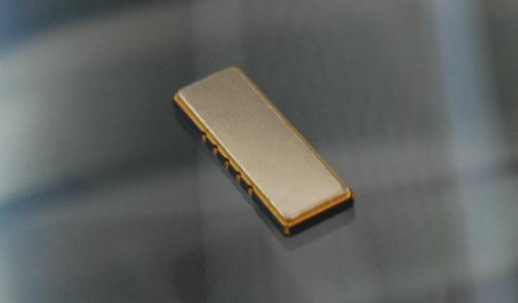
For over 30 years MICROSAW's engineers have specialized in the design and development of customized crystal-based products for Radio Frequency Industry. This background allows MICROSAW the ability to create leading edge microelectronic components used in a broad array of professional applications, such as:

- Telecommunications
- Mobile Infrastructure
- Global Navigation Satellite Systems
- Test and Measurement Equipment
- Guidance systems
- Instrumentation
- Timing Devices
- Metrology
- Seismic Systems
- Harsh Environment Applications

PLANT

An advantage to provide the manufacturing cycle in whole from design to final product

The plant incorporates research and development, engineering, manufacturing processes and quality assurance departments. On-site production facility contains purpose-built high-tech manufacturing equipment. Our production line is equipped with photolithographic stepper for manufacturing crystals with 0.25- μ m design rules. Self-Developed software enables synthesis, analysis and test methods to meet the most challenging specifications.



PRODUCT PORTFOLIO

A broad range of devices for a precision frequency selection and time control

MICROSAW has over 1300 Part Numbers in its Product Catalog. We keep moving forward with rapidly evolving RF and Microwave Markets. We offer standard and custom SAW and Microwave products:

- Low Insertion Loss SAW Filters up to 5 GHz
- SAW Delay Lines up to 5 GHz
- High Q-Factor SAW Resonators
- SAW Sensors
- High Performance RF Microwave Filters up to 35 GHz and Microwave Filter Banks

Continuing improvement of technology and business model allows us to design and manufacture high-performance and low-cost products, which have a unique set of electrical parameters.



Low-Cost Microstrip RF Filter

Low Price **0.5 €** Microwave Filter

Central Frequency **10 GHz**

Low Loss 2.7 dB

Small Size Crystal



Extra-Narrow Band SAW Filter

Central Frequency **100.015 MHz**

Bandwidth 0.009 MHz Level @-1dB

Low Loss 2.7 dB

SIP6M package



High Q STW SAW Resonator

Central Frequency **1000 MHz ± 25 KHz**

Quality Factor **14000**

Bandwidth 0.18 MHz Level @-3dB

Inserted Loss 4.1 dB

New*



Extra-Long Delay SAW Line

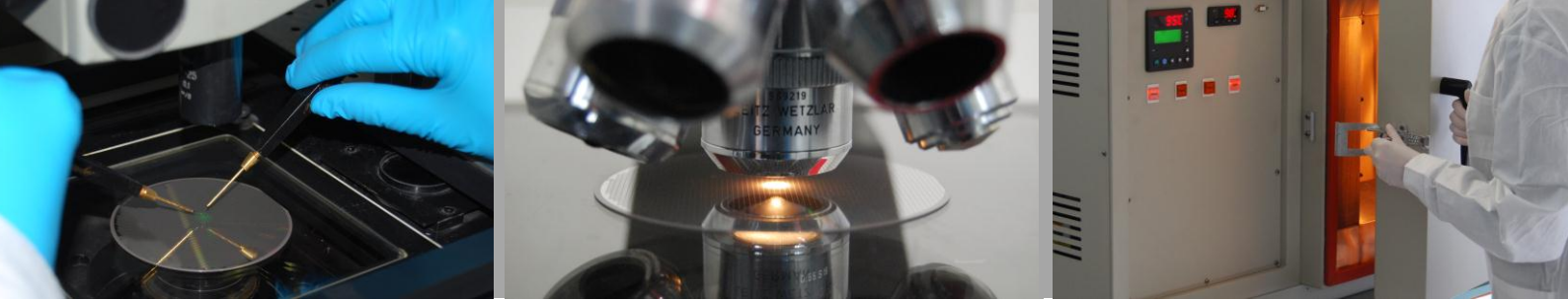
Central Frequency **345 MHz**

Absolute Delay **40 μs**

Bandwidth 40MHz MHz Level @-3dB

Inserted Loss 38 dB

We offer a variety of packages: Surface Mount Ceramic packages (DCC, QCC, SMP, DLCC), Metal packages (DIP, SIP, TO39, H-series) hermetically sealed All-Quartz packages (AQP), Metal Machined packages with SMA connectors, Plastic packages and Custom Designed packages.



QUALITY

Hi-reliable microelectronic components to the highest quality standards

Microsaw regards the product quality as the most important issue for a manufacturer. Each of our employees is, therefore, inspired to build quality and reliability into every process. We have established our own Quality System that not only meet international quality standards, but also take into account our own Program of Defect Prevention. High level of metrology and traceability in our manufacturing process has enabled us to supply free-defect products. Through the application of the company integrated management system we control the quality for every step: from the selection of materials to design and sample build, from manufacturing to testing and inspection, from packing and delivery to post-sales support. As a result of our attention to environment protection and safety, we guarantee a high level of product safety to our customers. The listed Microsaw's products comply fully with the requirements of the EU Directive RoHS concerning heavy metal content of manufactured products.

SERVICES

Specialized services in addition to our standard products

We are offering high flexibility to realize the special requirements of our customers. In addition to our standard and custom products we perform specialized frequency control services:

- New design
- Modification or upgrade to existing product - Rescale & Repackage
- Prototyping
- Custom production testing according to specific test requirements
- Expedited production if time allows

We provide documentation such as simulations, drawings, test results and evaluation boards that are designed to assess a performance of a device correctly in the shortest time.

CUSTOMER SUPPORT

We are committed to the success of Customer project

We have a vision to a successful product implementation through close cooperation with customers to understand their unique business and technical needs. Our engineering team is always ready to assist create a clearly defined project requirements and serve technical consulting. Recommendations to customers may significantly maximize savings and improve performance. Rapid response is always available. Why not to contact us?

WELCOME!

MICROSAW OY

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