Gapwaves unveils breakthrough MLW technology for affordable high-frequency low-loss solutions

Gothenburg, September 14, 2023: Since its introduction, Gapwaveguide technology has revolutionized high-performance low-cost mmWave solutions. Offering the performance of waveguide solutions at a fraction of the cost, Gapwaves brings high-end performance to the industry. Today, the company unveils Multi-Layer Waveguide (MLW), a breakthrough evolution of its proprietary technology made possible by an elegant synergy of design and manufacturing.

Beyond the advantages that waveguides offer, MLW brings unparalleled manufacturing agility, low cost, extremely thin profiles, native thermal handling, and massive maximum dimensions. The result is a paradigm shift where MLW not only improves but also opens unprecedented opportunities in a range of applications and markets, starting from automotive radars.

Key advantages of MLW include:

- **Accelerated time-to-market:** designed with manufacturability in mind, MLW solutions slash production time for both low- to high-volume scenarios.
- **First-class performance:** offering waveguide performance and unique industry capabilities.
- **Cost efficiency:** a solution that significantly reduces development and production costs without compromising quality.
- **Efficient heat transfer:** Made of metal rather than plastic, MLW offers exceptional thermal capabilities as modern sensors are challenged by the thermal aspects of the powerful chips used.
- **Groundbreakingly compact:** meeting and exceeding the industry's needs for reduced size and weight of components. MLW changes the notion that waveguide parts are bulky by significantly reducing it compared to competitive solutions.
- **Customization and flexibility:** MLW offers superior flexibility and customization into the manufacturing process, as no cumbersome tooling is needed.
- **Removing size limitations:** innovative approach allows to manufacture massive dimensions, overcoming the limitations of injection molded parts for high resolution radars.
- **Fully qualified and trusted:** MLW technology has been qualified to the strict automotive standard and fully trusted by leading TIER-1 customers.
- **Gapwaveguide robustness:** based upon the unique and proprietary gapwaveguide technology, MLW offers the same robustness that is the solid foundation for all our solutions.

Gapwaves CEO Jonas Ehinger comments: "*Bringing the MLW technology to the market is a new milestone towards making Gapwaves the standard for waveguide-based radar antennas. Continuing the work by Metasum AB, which has originally developed MLW, we can now offer our customers solutions based on various waveguide technologies. MLW is a new, yet well tested technology, that has been developed for several years, behind closed doors, together with customers. Select customer feedback following sample deliveries has been very positive and the technique can now be presented and offered to the market. This achievement is a testament to the dedication, innovation, and expertise of our R&D team*".

Abbas Vosoogh, founder of Metasum and Technology & Innovation Director at Gapwaves, comments: "*I am very proud to see the idea which initially formed in the last year of my PhD in 2017 reached the maturity that is ready to be used in competitive market of automotive radar. It was started by thinking and reflecting on, what are high precision fabrication processes which can be suitable for mass-production and being sustainable at the same time? And as an engineer, how can we have an innovative and disruptive solution by utilizing such process, to address some or all the needs and challenges of components such as antenna, filter... which we need for emerging millimeter-wave applications*".

Gapwaves at EuMW 2023

The technique will be introduced at the EuMW 2023 in Berlin, September 17-22nd. Carlo Bencivenni, Gapwaves Head of Electrical Engineering, will give a presentation at the Automotive Forum on Monday, September 18th at 9.25, room Alpha 5. Gapwaves will showcase an MLW prototype at the exhibition, booth 203C, September 19-21st, 2023. If you are interested in learning more or want to make an appointment with us, please contact sales@gapwaves.com.

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About Gapwaves AB (publ)
Gapwaves originates from research conducted at Chalmers University of Technology and was founded in 2011. Gapwaves vision is to be the most innovative provider of mm-wave antenna systems and the preferred partner to those pioneering next generation wireless technology. By leveraging the disruptive Gapwaves technology we help pioneers in telecom and automotive to create highly efficient mm-wave antenna systems that contributes to re-defining everyday life. Gapwaves markets are e.g. mmWave in the automotive and telecom industries.

Gapwaves share (GAPW B) is traded at Nasdaq First North Stockholm with G&W Fondkommission as Certified Adviser.