## **GAPWAVES**

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## Gapwaves presents active 5G-antenna with integrated chip-set

Gapwaves has finalized the first phase of development of an active 28GHz antenna with integrated chip-set and analog beam forming. The antenna shows very good performance with high gain and low losses confirming the measurements and simulations that was presented on Mobile World Congress in Barcelona in February 2018. The antenna and the integrated chip-set will now be subject to further tests while being promoted towards the 5G and Fixed Wireless Access segments of the global telecommunication industry.

The 28GHz beam forming antenna with a high performing filter and transition from PCB to gap waveguide is a further development of the first prototype that was presented on Mobile World Congress in Barcelona in February 2018. Simulations and measurements performed on the prototype have showed very good performance and high antenna efficiency with low losses, confirming the results that was presented earlier. The building practice of the active antenna has also shown excellent thermal performance.

The antenna prototype that has been developed will now be demonstrated and tested by potential customers. Gapwaves solution will provide telecom equipment suppliers with a platform to develop millimeter wave products with exceptional reach and performance for e.g. 5G or Fixed Wireless Access. Future antenna development includes digital beam forming and integration of high efficiency power amplifier.

"The antenna shows excellent performance with low losses and high efficiency proving the advantages of the gap waveguide technology. The results are in the absolute forefront, and for 28GHz systems such as 5G-networks and Fixed Wireless Access solutions, they can contribute to development of solutions combining very long reach with low energy consumption" says Thomas Emanuelsson, CTO Gapwaves.

"Gapwaves technology and the advantages that can be achieved at 28GHz received a lot of attention at the Barcelona fair and we are very pleased to present a prototype meeting the expectations. Further development to present a fully digital beam forming antenna for 5G is required, but I am convinced that the customers that will test and evaluate our current solution will be very impressed" says Lars-Inge Sjöqvist, CEO Gapwaves.

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## **About Gapwaves AB**

Gapwaves originates from research conducted at Chalmers University of Technology and was founded in 2011. Gapwaves vision is to be the leading supplier of active antenna solutions. Gapwaves develops waveguide and antenna products based on the patented GAP waveguide technology. The company's markets are e.g. telecom radio links, automotive radars, surveillance systems, and space observatories.

Gapwaves share (GAPW B) is traded at Nasdaq First North Stockholm and G&W Fondkommission is appointed Gapwaves AB's Certified Advisor.