Success story: GaN circuit research → radar and electronic warfare products

Microwave circuit research on GaN HEMT Technology and MMIC design between Saab AB and Chalmers has produced publications, 7 PhDs (yr 2012) and several state-of-the-art MMIC designs. MMIC circuit designs have then successfully been transferred to the soon to be released GaN process GH25 at UMS and then integrated into the next generation transmit-receive modules intended for future AESA-based radar and electronic warfare systems.

“GHz Centre, and its predecessor CHACH, has offered an important possibility to gain early design experience in an emerging semiconductor technology even before it is commercially available. The lead time in introducing this new technology into several new systems has thus been shortened by several years.” Johan Carlert, Manager Technology Strategies & MMIC design, Microwave & Antennas, Saab AB

Research Chalmers-Saab:

Chalmers

MMIC high power amplifier design by Saab and Chalmers, and processed in the GH25 process at UMS

Exploitation:

Supported by VINNOVA, Chalmers and Saab AB 2007-2013 through GHz Centre, and its predecessor CHACH 1995-2005