Microwave rectification characteristics of Gated-Anode 
AlGaN/GaN-HEMT-Based Diode

Akio Wakejima (1), Yoichi Tsuchiya (1), Yuji Ando (2), Hidemasa Takahashi (2), Hayashi Hiroaki (3), Eiji Yagyu (3)  
(1) Nagoya Inst. of Technology, Japan; e-mail: wakejima.akio@nitech.ac.jp  
(2) Nagoya Univ., Japan;  
(3) Mitsubishi Electric Corp., Japan

This presentation will discuss a gated-anode AlGaN/GaN-HEMT-based diode and its rectification characteristics. One of futures of the gated-anode diode is low turn-on voltage and high current with high breakdown voltage. Thanks to the future, we confirm in a circuit simulation with a diode non-linear device model that the diode can be achieved high conversion efficiency of over 80% under over-Watt 5.8-GHz input conditions.