

X-band 5 W Power GaN HEMT

Technology Overview

- ETRI's XGH16005P is an unmatched gallium nitride (GaN) high electron mobility transistor (HEMT) with gate length of 0.25mm fabricated by e-beam direct writing in ETRI's GaN-dedicated processing laboratory and tested in metrology laboratories. The XGH16005P offers a general purpose solution to a variety of RF and microwave applications.

Core Technologies

- Up to 15 GHz Operation
- 5 W Typical P_{sat} at 10 GHz
- 30% Efficiency at P_{sat} and 8 dB Power Gain at 10 GHz
- Size: 8.2 x 14 x 2.08 mm³

Application Area and Advantages

- Broadband Amplifiers
- Defense, Radar system
- Aerospace
- Class A, AB, Linear Amplifiers Suitable for OFDM, W-CDMA, and CDMA

Accomplishments

- A number of intellectual properties including SCI papers and patents
- Technology licensing or joint research for commercialization preferred

