



Foundry services

Our foundry in Nashua, N.H. offers GaAs and GaN HEMT-based MMIC processes that provide discriminating performance for a wide range of applications from below 1 GHz to more than 100 GHz. These processes are being offered to the U.S. Department of Defense (DoD) community at large.

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Current offerings

- Advanced process technologies with industry-leading performance
- Mature, reliable processes, with supporting reliability data
- Stability of a DoD trusted foundry
- All gates defined using e-beam lithography
- 6-inch wafer size for reduced cost: GaAs PHEMT since 2005, GaN (4 mil) released to production in 2017
- Shared wafer runs available for some processes
- Other services: MMIC design, on-wafer test (to 240 GHz), dice/pick/inspect



Parameter	0.1 μm PHEMT	70 nm PHEMT*	0.18 μm GaN	0.14 μm GaN*
F_t	90 GHz	150 GHz	55 GHz	70 GHz
F_{max}	225 GHz	310 GHz	140 GHz	155 GHz
G_m	570 mS/mm	710 mS/mm	370 mS/mm	420 mS/mm
I_{max}	615 mA/mm (1V)	700 mA/mm (0.8V)	1200 mA/mm (1V)	1300 mA/mm (1V)
$V_{\text{ds max oper.}}$	5V	4V	30V	30V
BV_{gd}	11V	10V	>80V	>80V
NF_{min}	1.4 dB @ 40 GHz	1.1 dB @ 40 GHz	1.7 dB @ 40 GHz	1.5 dB @ 40 GHz
Wafer thickness	55 & 100 μm	55 & 100 μm	55 & 100 μm	55 & 100 μm
Wafer size	6 inch	6 inch	4 inch 6 inch	6 inch

* Engineering development process

For more information contact:

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