0.5 um T-Gate PHEMT Process

For Transceiver Components of up to 20GHz:

- High Power Amplifiers
- Gain Blocks
- Low Noise Amplifiers
- Switches
- Mixers

Typical Device Parameters

Parameter	Typical Value
Idsmax (mA/mm)	520
Idss (mA/mm)	300
Gm (mS/mm)	350
Vpo (V)	-1.0
BVgd (V)	>15
Ft (GHz)	33
Fmax (GHz)	90
Noise Figure @ 10GHz	< 0.9

0.5um Gate SEM Cross-

GCS 10.0kV 16.6mm x50.0k SE(U)   1.00um
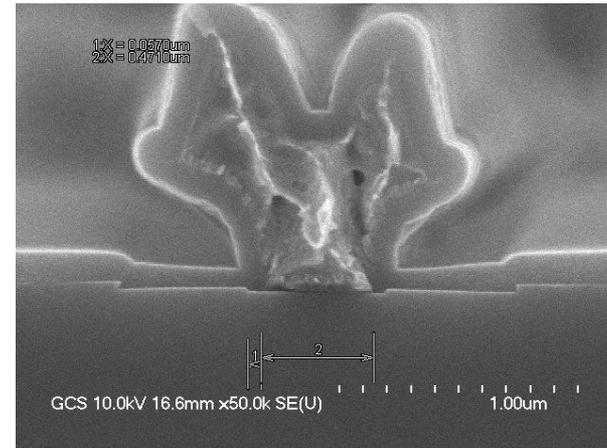
Typical Device Performance:

Parameters	Typical	Units
Fmin		
1.9 GHz	0.5	
4 GHz	0.6	dB
12 GHz	1.25	
P1dB*		
2 GHz	20	dBm
12 GHz	21	
OIP3*		
2 GHz	32	dBm
12 GHz	32	

NFmin of 0.5 um T-Gate PHEMT Process
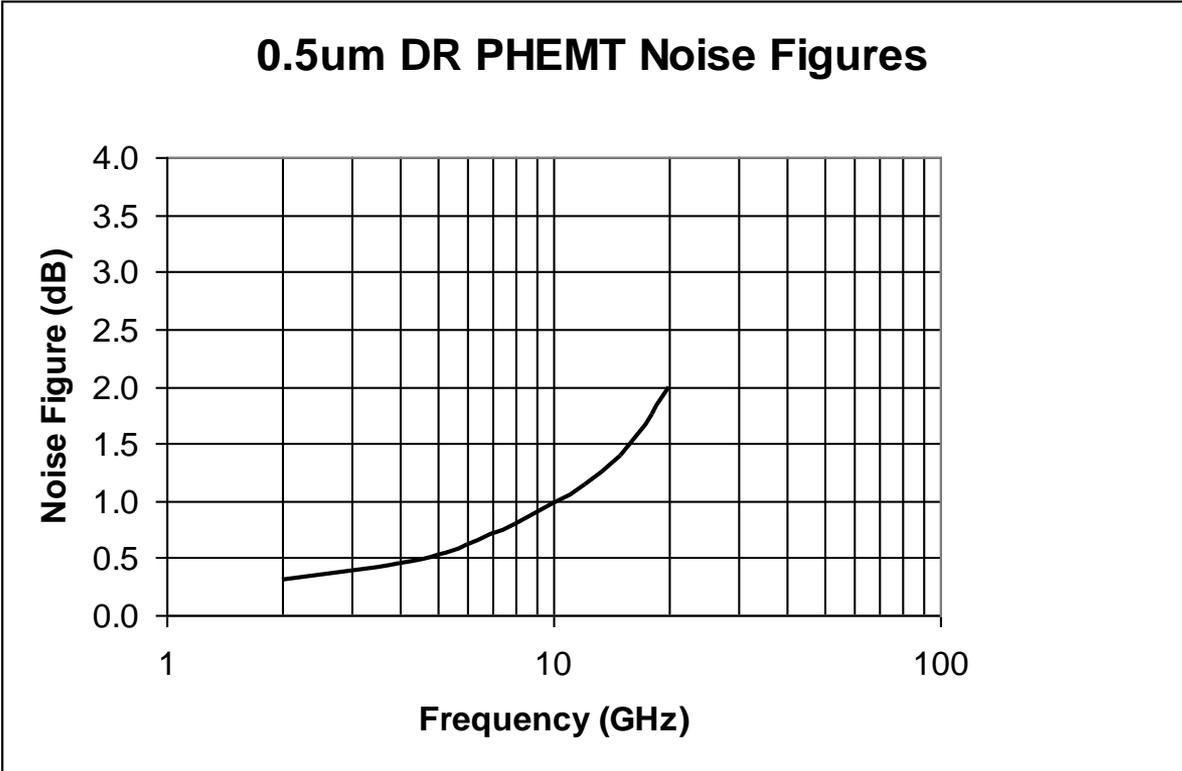
Fmin of 1.1 dB with associated gain of 10.5 dB at 12 GHz