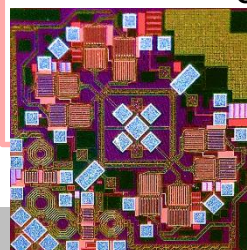
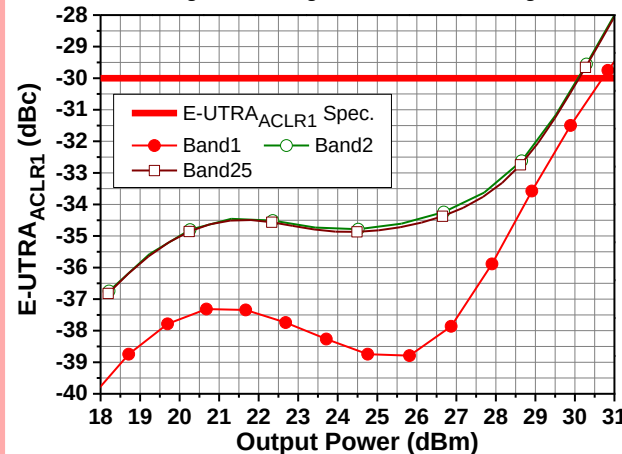
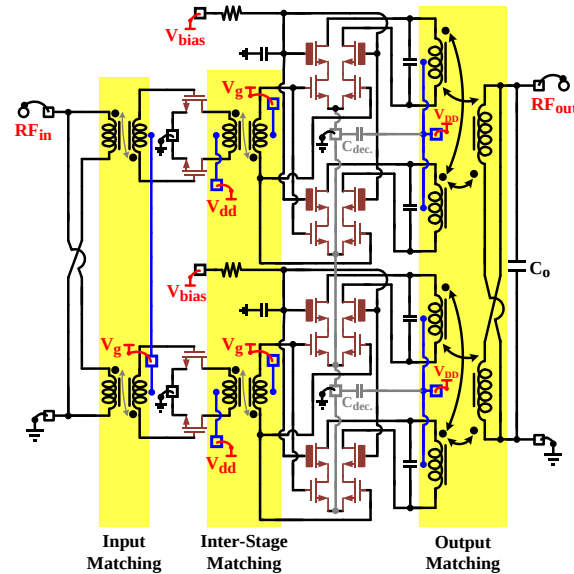
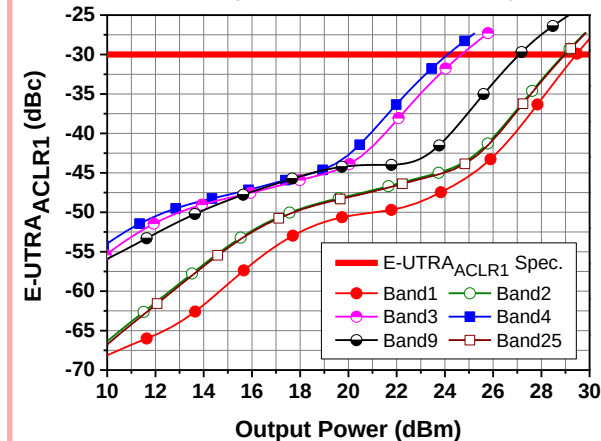
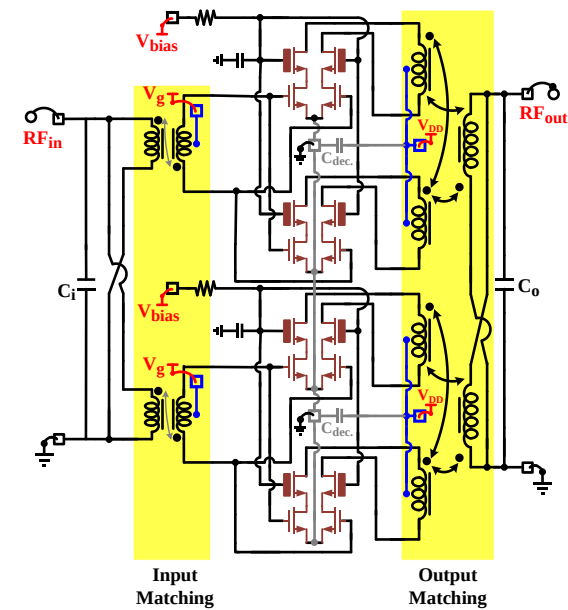


Parameter	This Work*	
Technology	0.13 μm	90 nm
V_{DD}	3.6	3.6
Frequency (GHz)	1.95	1.95
CW P_{SAT} (dBm)	34.72	32.87
CW P_{1dB} (dBm)	33.86	32.38
CW PAE (%) @ P_{SAT}	43.46	40.53
CW PAE (%) @ P_{1dB}	39.47	39.85
Gain (dB)	27.84	17.21
1dB Bandwidth (MHz)	350	280
Modulated Signal	LTE 16 QAM 20 MHz	LTE 16 QAM 20 MHz
P_{AVG} (dBm)	30.00	29.22
Modulated PAE (%)	25.38	27.82
EVM (%)	5.31	3.38
$E-UTRA_{ACLR1}$	30.63	-31.31
Linearization Technique	None	None
Chip Size (mm^2)	1.533	1.309



0.13 μm CMOS PA
20 MHz 16 QAM
LTE signal



90 nm CMOS PA 20 MHz
16 QAM LTE signal