

Rad-Hard Process 1.2 μ m Double Poly, Double Metal

Standard Features

- ❖ UTIX Stepper
- ❖ Double poly
- ❖ Double metal
- ❖ 5V max operating voltage

Process Technology

- ❖ EPI starting material provides latch-up protection
- ❖ Degenerate P-channel stop for N-channel devices
- ❖ 225 Å gate ox
- ❖ Substrate cap implant
- ❖ Double poly capacitor

Standard Layout Rules

- ❖ Upon request

Rad-Hard Parameters

- ❖ Vt shift at 250kRad at 78 K 0.9 to 1.4V (max)
- ❖ Hot Electron Impact Ionization current for N-ch at 3V at 78 K

Typical Electrical Parameters for 1.2 μ m Rad-Hard Process (Room Temperature)

	N-CH	P-CH	Units
Vt(30X1.2 μ)	0.70	-0.72	V
Ids	0.20	-0.09	mA/ μ m
Gain (30X30)	66	19	μ A/V ²
Body Effect	0.60	0.35	V ^{1/2}
Sub-threshold slope	90	90	mV/decade
Leff	0.9	1.1	μ m
Xj	0.3	0.3	μ m
Rs	31	62	Ω /square
Rs poly	21	20	Ω /square