

RF1P-ULL-GF22FDX-PLUS

Single Port Low Leakage

Register File Compiler

Ultra-Low Leakage: High V_T (HV_T) and low leakage HV_T ($LLHV_T$) devices used with source biasing to minimize standby currents while operating at low voltage

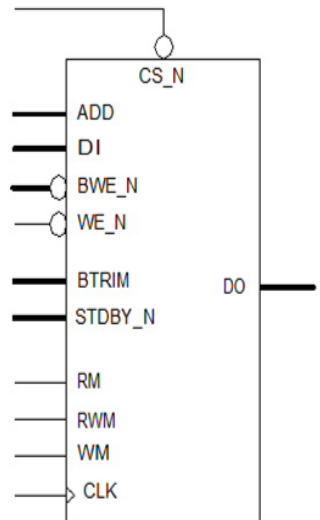
Bit Cell: Utilizes GlobalFoundries® Ultra-Low Leakage 6T (P110UL) bit cells to ensure high manufacturing yields

Four Power Modes: Active, Standby, Retention, and Power Off modes provide flexibility for power optimization

Speed Grades: Three options to adjust the speed/leakage balance and optimize for high speed or low power operation

Data Write-Through: Optionally prevent data out transitions during the write to reduce power

Error Correction: Optional SECEDED logic for single-bit correction and dual-bit detection



Technology	GF 22nm FDX - PLUS	Max Instance	72 Kilobits	EDA Views (Partial List)	
Voltage	0.8V typical	Min Instance	128 Bits	Verilog Model with UPF	
Temperature	-40°C to +125°C	Word Width	4 – 72	Liberty Files (NLDM, LVF, CCS)	
Power	Mesh	Word Depth	16 – 2048	PDF and Text Datasheets	Redhawk APL
# Metal Layers	4 with optional power connections in M5/C3	Aspect Ratio	Column Fold: 4 or 8	LEF 5.8	Verilog Test Bench
Speeds	Slow Medium Fast	Write Enable	Optional Bit or Byte	LVS SPICE Netlist	Bitmap File (x, y)
BIST Mux	Optional	Modes	Functional, BIST, Scan, Sleep	GDS	Power Grid (Votus)
				Tessent MBIST Control File	Common Power Format (CPF)

About Nordic Semiconductor:

Nordic Semiconductor's Seattle memory team (formerly Mobile Semiconductor) provides SRAM, ROM, and Register File compilers optimized for ultra-low power, leakage, and high performance applications.

www.mobile-semiconductor.com

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