

GLOBALFOUNDRIES Analog-Power process technology platforms include BCDLite®, offering a leading cost-performance trade-off vs. traditional BCD technologies.

BCDLite and BCD technologies are part of a modular platform architecture that is based on the company's logic process baseline, integrating power and high voltage transistors, precision analog passives, and NVM memory.

- Selection of rich IP portfolio of the base logic process
- Best-in-class power and high voltage transistors
- Analog- and power-focused PDK enablement
- BCDLite process tailored for mobile/consumer applications, DC-DC, AC-DC, PMIC, wireless charging
- BCD offers high-temp rated transistors and rugged power devices, ideal for industrial and automotive applications.



Industrial/Factory Automation



Smart Lighting



Automotive



Energy Storage

130nm BCDLite®	130nm BCD
	DTI + NBL
E-Flash	
	Low Ron N/PLDMOS 40 to 85V
Low Ron N/PLDMOS 10 to 30V	
Iso N/PLDMOS 12 to 30V	
HRES, Zener Diode, MIM	
1.5V LP CMOS	
5V CMOS Baseline 3~8 Metal Stack, 30KÅ TM	

130nm BCDLite® Platforms for PMICs

- Platform built on 12" wafers with Cu BEOL
- Fully Isolated Low Rdson power devices (5V to 30V)
- Optimal trade-off between Rsp performance and cost
- ESF1 eFlash integration

130nm BCD Platforms for Industrial/Automotive Power ICs

- Platform built on 12" wafers with Cu BEOL
- Best-in-class Rsp
- Wide range of device options (5V to 85V)
- ESF1 eFlash integration (available 2H'16)
- Application targets: Industrial, Automotive, High-End Consumer, Communications
- Automotive AEC Q100 Grade-1 (2H'16) and Grade-0 (1H'17) Qualification

130nm BCDLite® and BCD eFlash for Embedded Power ICs

- 130nm LV/MV + HV Power Transistors
- SST ESF1 1st generation Super-Flash technology
- Up to 50% less process adders compared to competing ESF1 solutions
- "off-the-shelf" macros, 256Kb and 2Mb
- Endurance: 10k cycles
- Data Retention: 10 years at operation temperature (85°C commercial grade)

Non-Iso 30V BCDLite®	Iso 30V BCDLite	65V BCDLite
Iso N/PLDMOS 10V	Low Ron NLD MOS 10 to 35V	Iso-body N/PLDMOS 40 to 65V
Non-Iso N/PLDMOS 30/35V	Iso N/PLDMOS 10 to 35V	
10V LDN/PMOS		10V LDN/PMOS
Option : HRES, MIM, Zener		
1.8V ULL and IC		
6V CMOS Baseline, 36Å TM (1P3M up to 6M)		
P-substrate	N-epi / P-substrate	

180nm BCDLite® Platform

- Mature technology on 8" wafers
- Modular technology platform featuring
 - 1.8V ULL (Ultra Low Leakage) and IC (Industry-Compatible) processes
 - 5V and 6V CMOS
 - Competitive Rsp
- TaN Precision Resistor
- Automotive Grade 1 Qualified

EDA/IP Solutions		130nm BCDLite®	180nm BCDLite ULL	180nm BCDLite IC
Standard Cells	1.5V	ARM-SAGE-9T & 7T ¹⁾ RVt	–	–
	1.8V	–	ARM-SAGE-9T ¹⁾ ARM-Metro-7T ¹⁾	ARM-SAGE-9T ¹⁾
	5V & 6V	–	ARM-9T ¹⁾	
Memory Compiler	SP SRAM	ARM ¹⁾	Synopsys ¹⁾	–
	DP SRAM	ARM ¹⁾	Synopsys ¹⁾	–
	ROM	ARM ¹⁾	Synopsys ¹⁾	–
	1PRF	ARM ¹⁾	–	–
	2PRF	ARM ¹⁾	–	–
1.5V I/O		GLOBALFOUNDRIES		
1.8V I/O		–	ARM ¹⁾	–
5V I/O		GLOBALFOUNDRIES		
OTP (130nm) – 1.5V/5V OTP (180nm) – 1.8V/6V, 6V SG		eMemory		
eFuse (130nm – 5V SG, 180nm – 6V SG)		GLOBALFOUNDRIES		
eFlash		SST	–	
Spice Model*		BSIM4.5 with Sub Ckt/ Cadence ²⁾		
PDK		Mentor		
DRC/LVS		Mentor		
RCX		Mentor / Synopsys	Mentor / Synopsys / QRC	
ESD Library		GLOBALFOUNDRIES	GLOBALFOUNDRIES	

* Typical, Corner, Statistical, Mismatch, Noise and other analog features

1) Free library program;

2) Excludes Assura physical verification support