GLOBALFOUNDRIES 55nm BCDLite, part of the 55nm process technology platform, enables product development for applications requiring digital, RF, eFlash, ULP, automotive, power, analog and mixed signal capabilities.

Low and Ultra Low $R_{DSon}$ Power FETs provide 30% to 47% reduction in on-resistance versus earlier BCDLite processes, an advantage in die cost and conversion efficiency by either reducing die area for a fixed target or reducing losses.

Target Applications and Solutions

- Human Machine Interfaces (HMI)
- Audio Amplifiers with Embedded Digital Audio Processors
- Power Management Integrated Circuits (>30% reduction in $R_{DSon}$ losses)
The GLOBAL SOLUTIONS program is the sum of internal resources and external partners, combined into an ecosystem that efficiently enables the fastest time-to-volume for customers. This ecosystem includes partners in all aspects of design enablement and turnkey services, OPC and mask operations, and advanced capabilities in assembly solutions.

- 55nm 1.2V/2.5-3.3V CMOS Logic
- Iso- Low $R_{Dson}$ 8V-30V N/PDMOS, 5V ULR
- 5V ED PMOS and Non-isolated NMOS
- Vertical NPN and PNP Bipolar Transistors
- eFuse, OTP, and SP/DP SRAM Memory
- MOS, MOM, and MIM Caps, Varactor
- High Rs, TaN, P+ and N+ Poly Resistors
- -40°C to 150°C Temperature Range

**IP Overview**
The 55nm LPx Platform IP portfolio includes a wide range of silicon-proven high performance, power-optimized solutions for a broad set of applications.

### 55nm Platform Extensions

- 55LPx
- 55 BCDLite
- 55ULP
- 55RF

1.2V baseline logic process with foundation and complex IP reusable across platform
5V, 8V, 12V, 20V and 30V DMOS power FETs, analog & dense digital components for mobile apps
SLVT/SHVT transistors and 0.9V SRAM—ideal for battery-powered, low voltage apps
RF features and models for Bluetooth, LTE XCVRs and other wireless communications

**55nm BCDLite Cost Advantages**
Many applications require dense digital with analog and power to enable integration or whole new functions. When the percentage of the digital content increases, it puts a premium on smaller feature sizes to keep die area and cost under control. The 55nm feature size in 55LPx and 55BCDLite helps to minimize die size and cost for higher digital content percentages, as shown in the chart below for a typical 12V PMIC.

**GLOBAL SOLUTIONS® Design and Manufacturing Ecosystem**
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