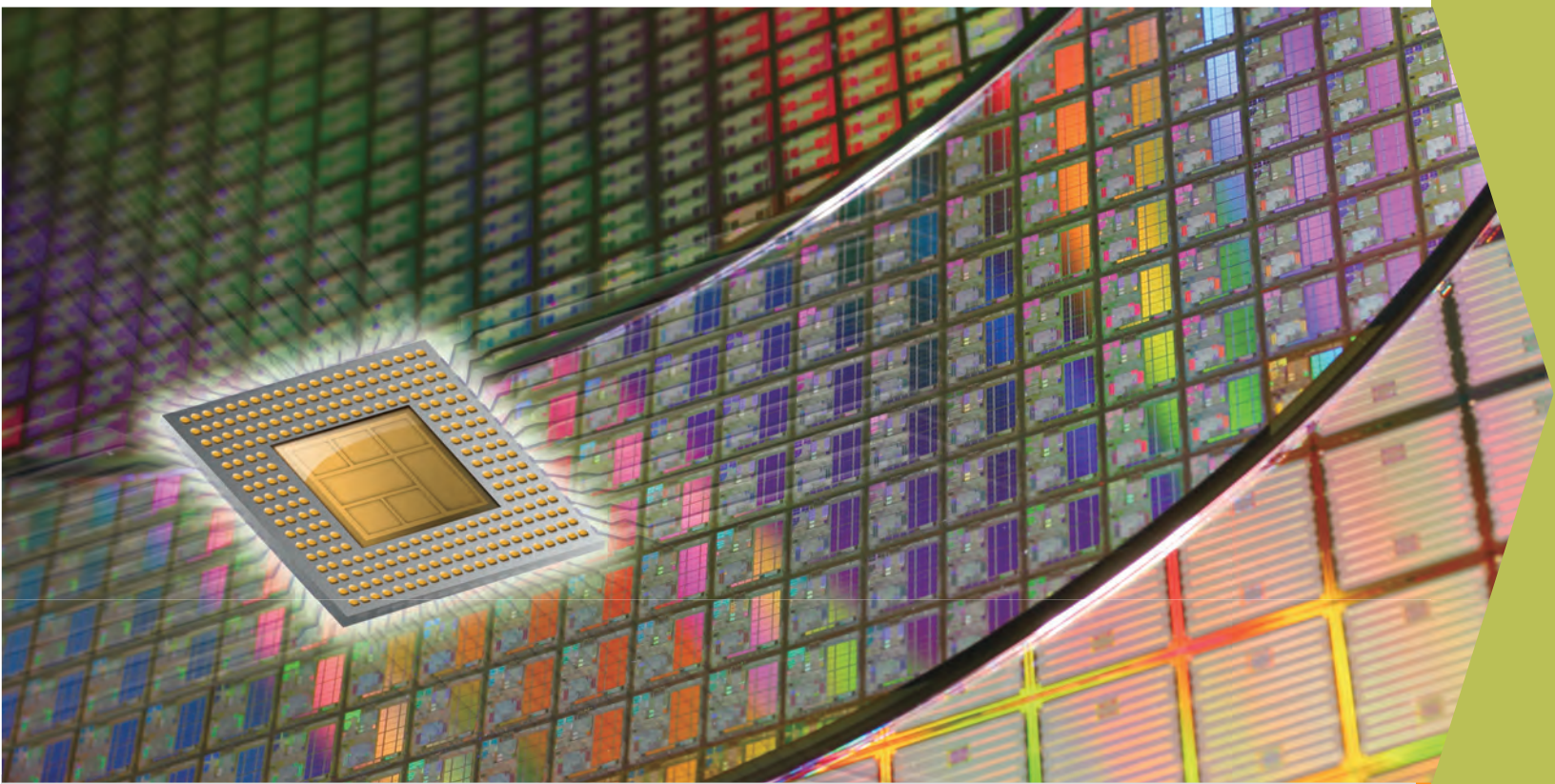


FOUNDRY LEADERSHIP FOR THE SoC GENERATION

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# POWER MANAGEMENT IC



**UMC**

# POWER MANAGEMENT IC

Power Management IC (PMIC) is a fast growing semiconductor market, with origins linked to the growing environmental protection trend. PMIC plays a key role in this field due to its ability to improve power efficiency for electronic devices better than conventional discrete solutions.

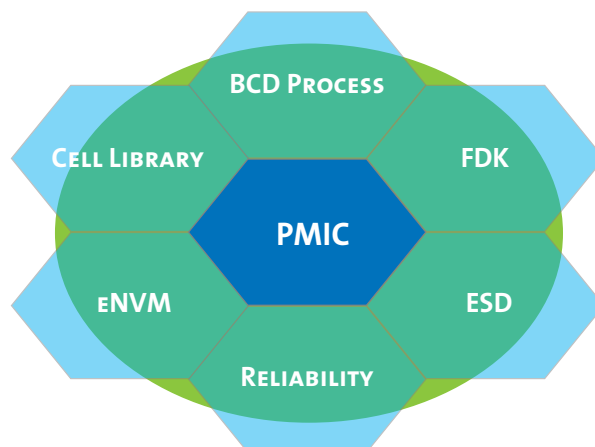
UMC provides state-of-art Bipolar-CMOS-DMOS (BCD) and other technologies for a variety of product applications, such as DSC, chargers, mobile devices, motor driver and automobile. Our value added services have enabled our customers to compete in these cost-driven markets where high performance products are the norm.

UMC's BCD technology solutions are based on our Logic/Mixed Signal technology, accommodating multiple voltage device options for different PMIC applications. The voltage ratings cover from 5V to 100V with a broad range of device structures including Lateral Diffused MOSFET (LDMOS), Double Diffused Drain MOSFET (DDDMOS), Field Drift MOSFET (FDMOS), and other transistors, diodes, etc.

UMC offers BCD technologies with both EPI and P-SUB wafer solutions for performance driven and cost oriented markets, respectively.

## COMPREHENSIVE BCD PLATFORM OFFERINGS

- User friendly Foundry Design Kit (FDK)
- ESD guidelines and sample layouts
- Rugged reliability performance and Safe-Operation-Area (SOA)
- Embedded Non-Volatile Memory solutions
- Fundamental digital IP support



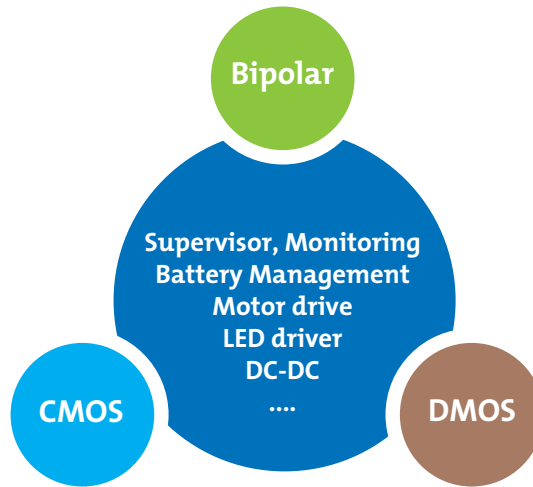
## VOLTAGES AND OFFERINGS

UMC provides a wide range of PMIC solutions from 0.35um to 0.18um, with various voltage ratings designed to meet diversified requirements. On top of our existing logic/MM platform, UMC is committed to the long-term technology roadmap development and technology investment for both EPI and non-EPI solutions to address differentiated application requirements.

BCD TECHNOLOGY	SUB	LV CMOS (V)	HV DMOS		PROCESS READY
			VG (V)	VD (V)	
0.11um BCD 30V	P-SUB	1.2, 5	5	6-30	√
0.18um BCD 150V	EPI	1.8, 5	5	12~150	√
0.18um BCD 150V	P-SUB	1.8, 5	5	12~150	√
0.25um BCD 40V	EPI	5	5	24~40	√
			18	24~40	
0.25um BCD 60V	EPI	5	5	40~60	√
			18	40~60	
0.25um BCD 60V	P-SUB	5	5	12~60	√
			18	18~60	
0.25um BCD 100V	EPI	5	5	40~100	√
			18	18~100	
0.35um BCD 40V	P-SUB	3.3, 5	5	12~40	√
0.35um BCD 65V	P-SUB	3.3, 5	5	65	√
0.35um CDFD 40V	P-SUB	5.5V	5.5V	20~40	√
			40V	20~40	√

## PMIC PLATFORM APPLICATIONS

PMIC technology is widely used in modern electronic devices with diversified functions, such as DC-DC converter, LED driver, battery management, motor driver, etc.



## COMPLETE SOLUTIONS

UMC's PMIC and SHV technologies enable customers to develop more power efficient ICs to meet the "Green" requirements of electronic systems. UMC provides a complete PMIC portfolio, including EPI and P-substrate (non-EPI) technologies, together with IP solutions including Standard Cell, IO, OTP, MTP, eFuse and sufficient wafer capacity to fulfill customers' fast time-to-market and time-to-production goals in today's demanding semiconductor environment.