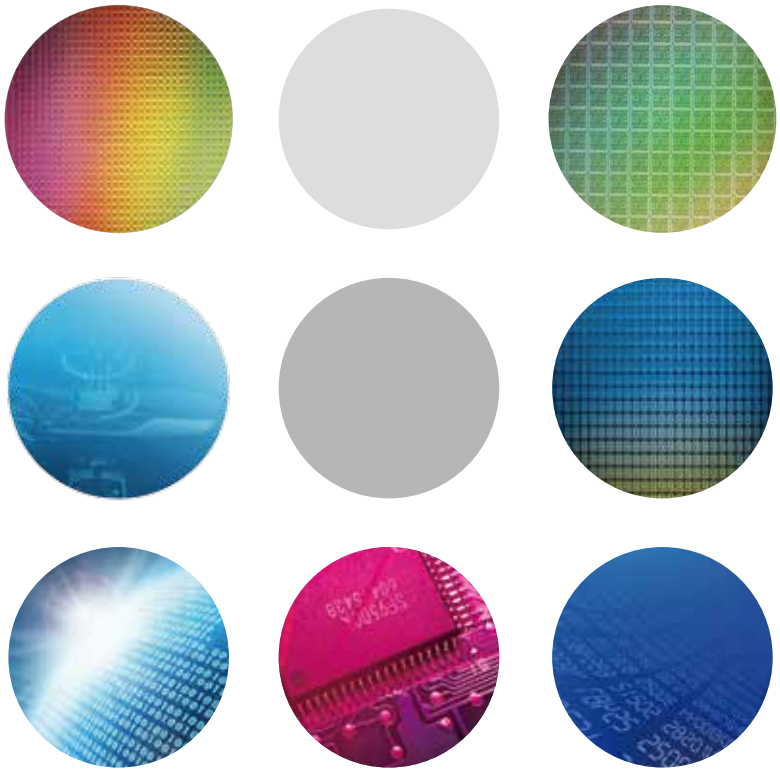


SMIC

Semiconductor Manufacturing International Corporation

Contents

About Us 01

28nm Process Technology 07

40nm Process Technology 11

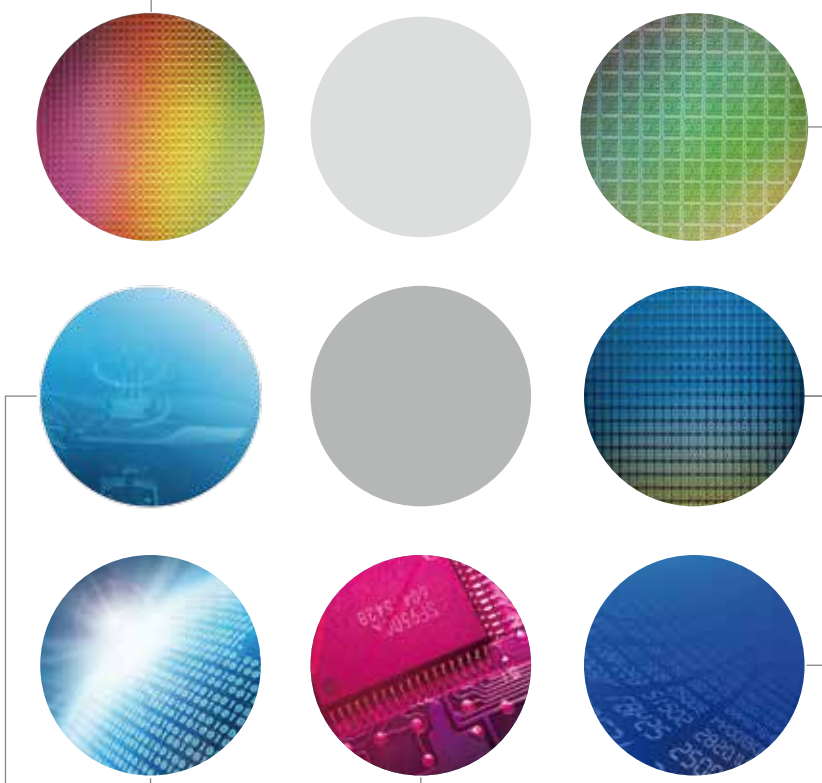
65 / 55nm Process Technology 15

IoT Technologies 19

eNVM Technology 21

SPOCULL Technology 25

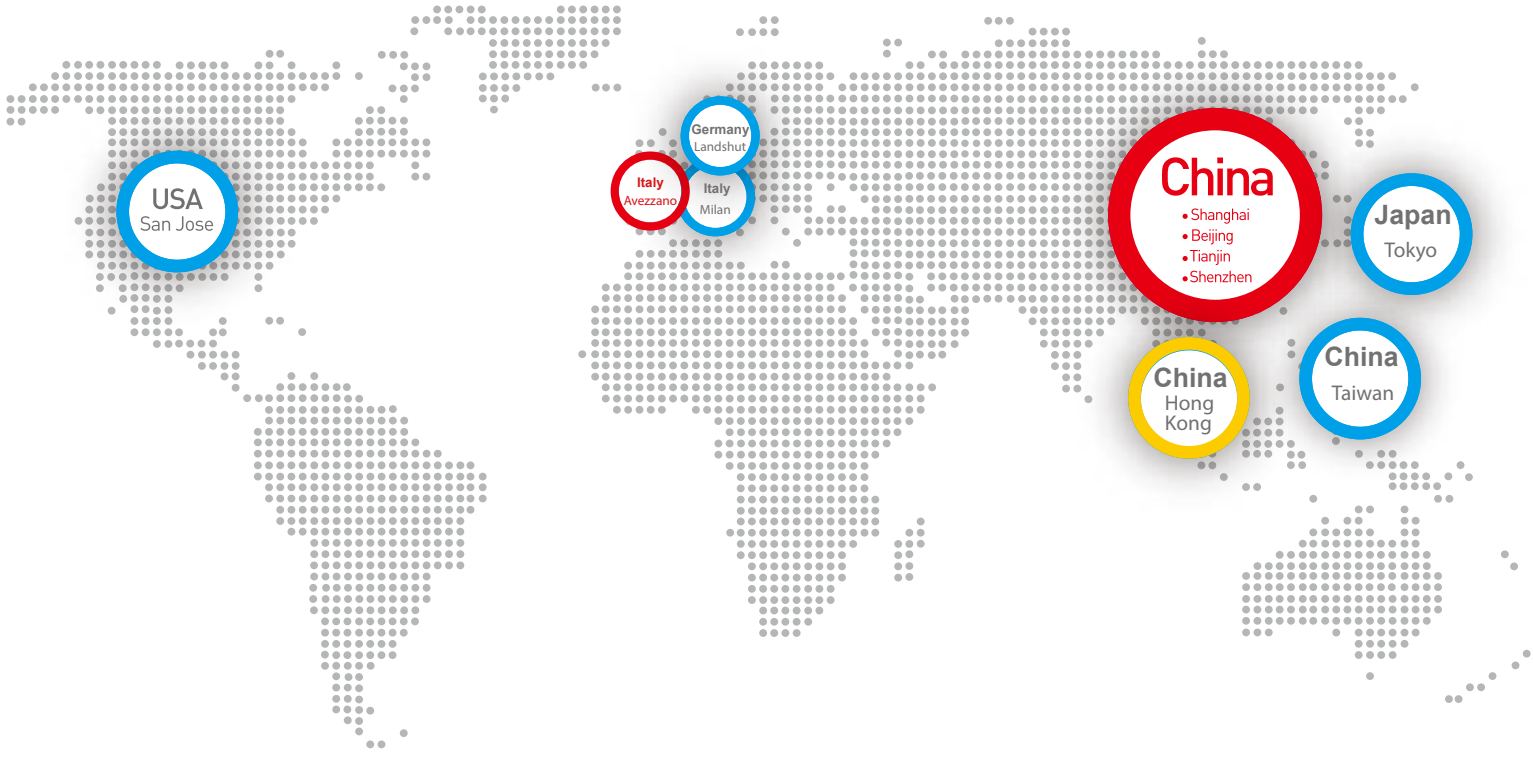
Automotive 27



The Foundry For Your Vision

About Us

Semiconductor Manufacturing International Corporation ("SMIC"; NYSE: SMI; SEHK: 981), one of the leading foundries in the world, is Mainland China's largest foundry in scale, broadest in technology coverage, and most comprehensive in semiconductor manufacturing services. SMIC provides integrated circuit (IC) foundry and technology services on process nodes from 0.35 micron to 28 nanometer. Headquartered in Shanghai, China, SMIC has an international manufacturing and service base. In China, SMIC has a 300mm wafer fabrication facility (fab) and a 200mm mega-fab in Shanghai; a 300mm mega-fab and a majority-owned 300mm fab for advanced nodes in Beijing; 200mm fabs in Tianjin and Shenzhen; and a majority-owned joint-venture 300mm bumping facility in Jiangyin; additionally, in Italy SMIC has a majority-owned 200mm fab. SMIC also has marketing and customer service offices in the U.S., Europe, Japan, and Taiwan, and a representative office in Hong Kong. For more information, please visit www.smics.com.



A Strong Global Presence

Headquarters and Fab Locations | Customer Service Office: Account Management & FAE | Representative Office

SH 300mm Fab
(40nm~14nm)

SH 200mm Fab
(0.35μm~90nm)

SH 200mm Middle End Fab
(Bump, DPS)

BJ 300mm Fab1
(0.18μm~55nm)

BJ 300mm Fab2
(40nm~28nm)

SZ 200mm Fab
(0.18μm~0.13μm)

TJ 200mm Fab1
(0.35μm~0.15μm)

LF 200mm Fab
(0.18μm~90nm)

* Beijing Mega Fab (12") Phase 2 is a JV Fab
* LFoundry (8") is a SMIC majority-owned Fab

SMIC Technology Portfolio

SMIC offers a comprehensive technology portfolio comprising logic (including generic and low-leakage), mixed-signal / RF, BCD / high-voltage, NOR / NAND Flash, eNVM (eFlash, eEE-PROM, OTPROM), MEMS / 3DIC, and CMOS image sensors. We bring the most value-added solutions to customers.

	CIS	BCD	HV (DDIC)	RF	Logic	MCU	NOR Flash	NAND Flash	TSV	RFSOI
14nm					●					
24nm								●		
28nm			⬡	●	●	⬡				
38nm								●		
40nm			●	●	●	●				
55nm			●	●	●	●	●			
65nm				●	●		●			
90nm				●	●		●			
95nm				●	●					
0.11µm	●			●	●	●				
0.13µm				●	●	●				●
0.15 / 0.153µm			●	●	●					
0.18µm		●		●	●	●			●	
0.25µm				●	●					
0.35µm		●	●	●	●	●				

● Released / In Production ● Major Focus (in development) ⬡ Future Plan

* IGBT is >0.35µm (1200v release)

- Purple dot shows that SMIC already has a technology node in production for an application.
- Blue dot shows that SMIC either has a technology node in development.
- Red polygon shows that SMIC has plans to have a technology node for an application.

IP Development Service & Design Service

• SMIC offers a vast and diverse portfolio of semiconductor intellectual property (IP) blocks from 0.35µm to 28nm to support customers' design needs.

• SMIC's Design Support services prepare customers' designs for production, using proven technologies to allow improvements in chip complexity, performance and functionality, while reducing power consumption and optimizing die size. Our services minimize chip design risk and shorten products' time to market.

Mask

SMIC's mask shop provides mask manufacturing services for SMIC's foundry customers and other fabs and institutions. SMIC has China's largest and most advanced mask making facility with 0.50µm to 28nm capabilities.

MPW Service

The SMIC Multi-Project Wafer (MPW) program provides customers a cost-effective prototyping service by enabling multiple customers and projects to share common masks and engineering wafers. Currently, we provide shuttle services for processes from 0.18µm to 28nm on a regular basis.

Bumping

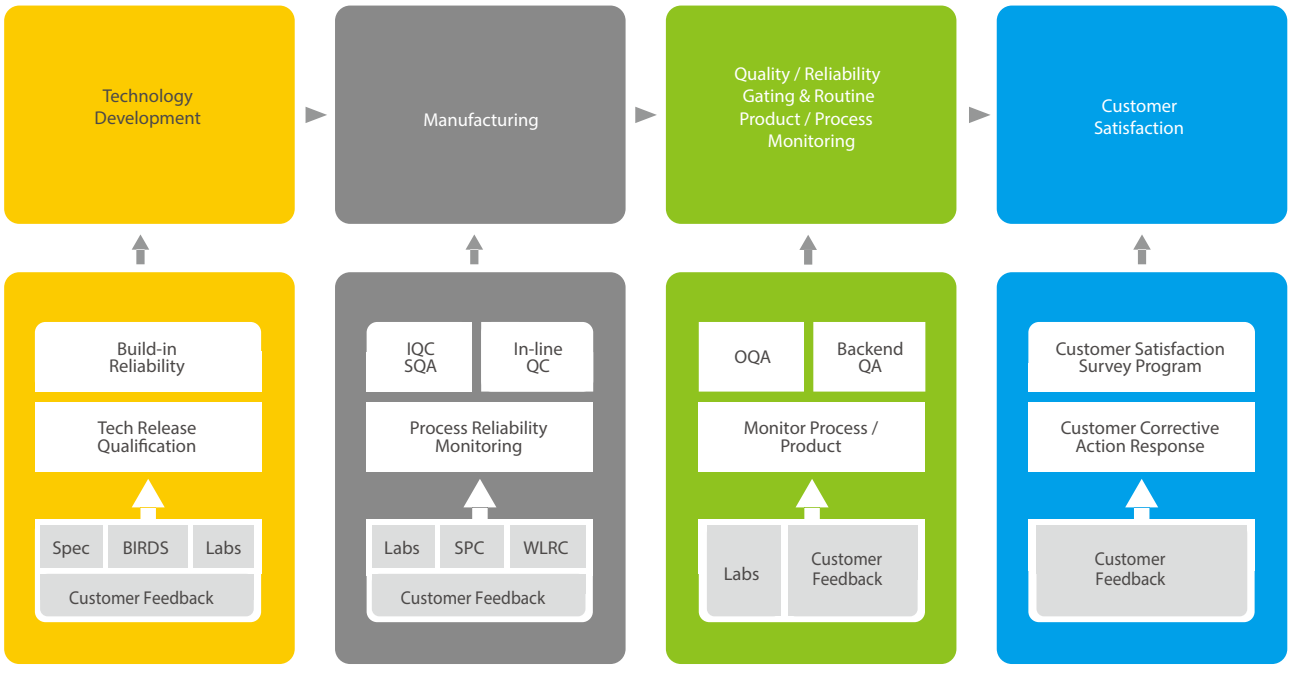
• Bumping is a necessity for advanced front-end IC manufacturing technologies, and is a basis for the 3D wafer level packaging technology development.

• SMIC offers in-house 8" bumping service in Shanghai M-Fab. SJSEMI, a majority owned subsidiary of SMIC, offers 12" bumping service and related testing.

Quality & Reliability Systems

SMIC has built comprehensive quality and reliability assurance and control systems into our processes and services, from technology development to production. In addition, we have various labs and analytical tools to perform chemical and material analysis, product failure analysis and yield enhancement, reliability qualification and monitoring, as well as tool calibration.

Overview of SMIC's Quality & Reliability System



Environment, Safety & Health

In our daily operations, we focus on product innovation and quality control while putting an emphasis on preventing environmental pollution, using energy and natural resources effectively, protecting our human resources and preventing harmful accidents. We believe this is vital to employee well-being and corporate responsibility as we raise environmental protection, safety, and health (ESH) standards for every employee at SMIC. We are striving to be environmentally responsible through continuous improvements. We aim to strengthen our operational risk management to ensure the continued growth of SMIC.

To achieve the above goals, SMIC is committed to:

- Following ESH laws, regulations and international protocols while fulfilling customer requirements
- Making environmental protection and employee safety and health a primary responsibility for every SMIC manager
- Carrying out on-site ESH management through employee ownership and teamwork
- Establishing a "green" supply chain and using environmentally responsible manufacturing processes
- Strengthening accident prevention measures and emergency response and recovery capabilities

Corporiate Social Responsibility

- SMIC cares for people, the environment, and society.
- The company was established with a focus on people and community. The results can be seen at all our sites. Our manufacturing operations coexist with our nearby residential communities, which provide comfortable homes for our employees and their families and leading private schools for their children. With our children growing up near our factories, we have extra incentive to maintain safe and environmentally-responsible operations.
- Indeed, responsibility is a touchstone of SMIC culture. Our commitment to responsibility is seen in our products, which are made with advanced technologies that require the trust of our partners and governments worldwide.
- Our commitment to corporate social responsibility is embraced by our top executives. Leaders of key functions form our CSR Committee, which coordinates our practices concerning legal compliance and care for people and the environment. By institutionalizing CSR at SMIC, we ensure that we meet our commitments, and that our practices are aligned with the best in the industry.
- Examples of SMIC's commitment to responsible business practices tell the story of our company. We are proud of our achievements in each area, and continuously seek to improve.
- SMIC launched "Liver Transplant Program for Children" in April 2013. Since then our donation has allowed 200 children to undergo surgery and the success rate is 100%.

28nm

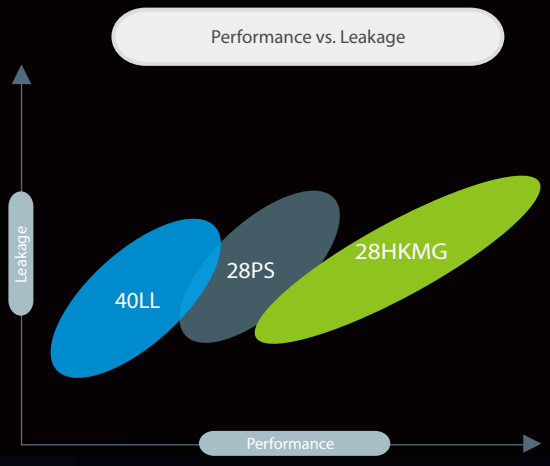
Process Technology

• SMIC's 28nm offering is a mainstream industry technology platform and includes both conventional Poly-SiON (PS) and gate-last high-k dielectric metal gate (HKMG) processes. SMIC's 28nm technology was process frozen in 4Q13 and successfully entered Mass Production stage in 2H15. SMIC supports customers' prototyping requirements on both 28nm PS and 28nm HKMG processes.

• Over 100 IPs from multiple third party IP partners as well as SMIC's internal IP team have been prepared to meet customers' dynamic needs for their IC products. At present, SMIC has achieved successful yields on 28nm process technology for high-performance, low-power mobile processors.

• The 28nm process technologies primarily target mobile computing and consumer electronics related applications, such as Smartphone, Tablets, DTV, Set-top Boxes and networking communication. SMIC's 28nm technology supports customers on manufacturing high performance application processors, cellular baseband, wireless connectivity, networking processors, etc.

• In 2018, SMIC will have 28nm MPW shuttles, scheduled in March, June, September, October and December.

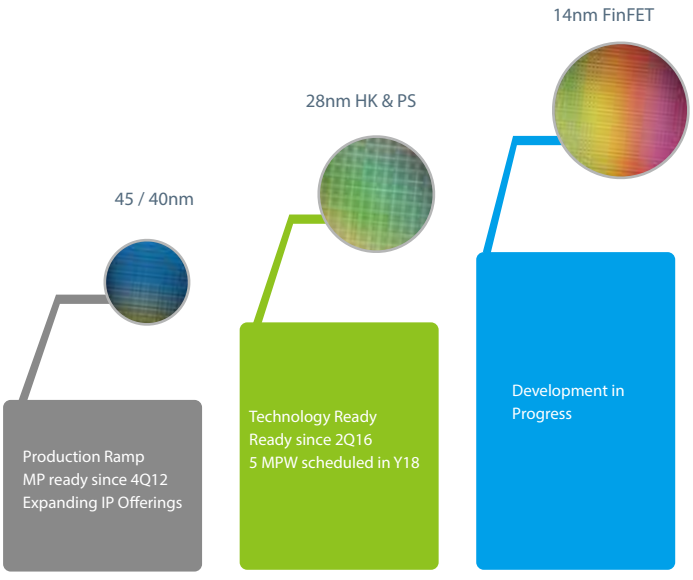


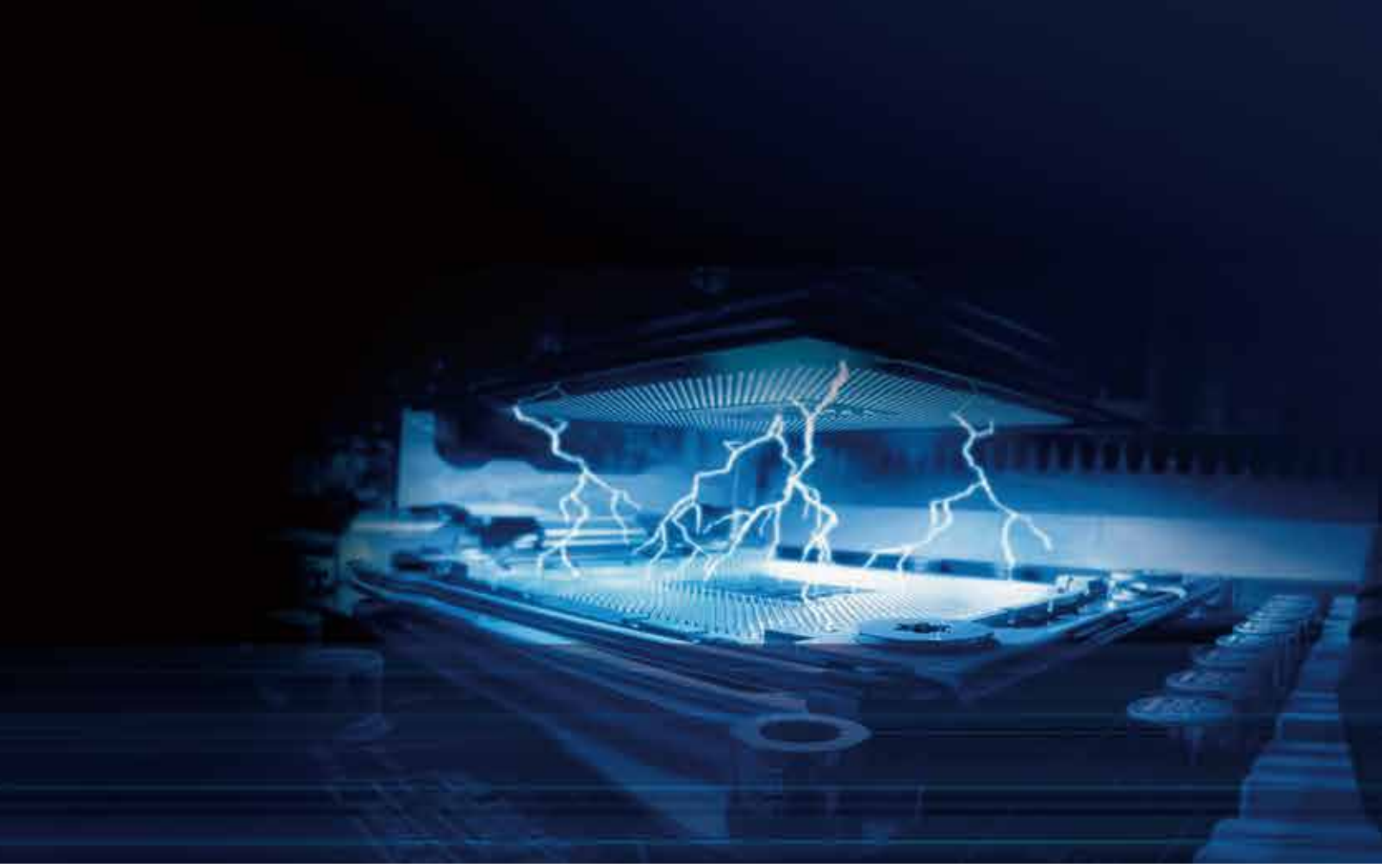
Device Standard Offerings

Standard Offering		PS	HK	HKC+*
Core Vcc (V)		1.05	0.9	0.9
VT	Ultra-Low	√		√
	Low	√	√	√
	Standard	√	√	√
	High		√	√
1.8V I / O	1.8V UD 1.2V		√	√
	1.8V UD 1.5V	√	√	√
	1.8V	√	√	√
2.5V I / O	2.5V UD 1.8V	√	√	√
	2.5V	√	√	√
	2.5V OD 3.3V	√	√	√

* Developing

Advanced Technology Roadmap

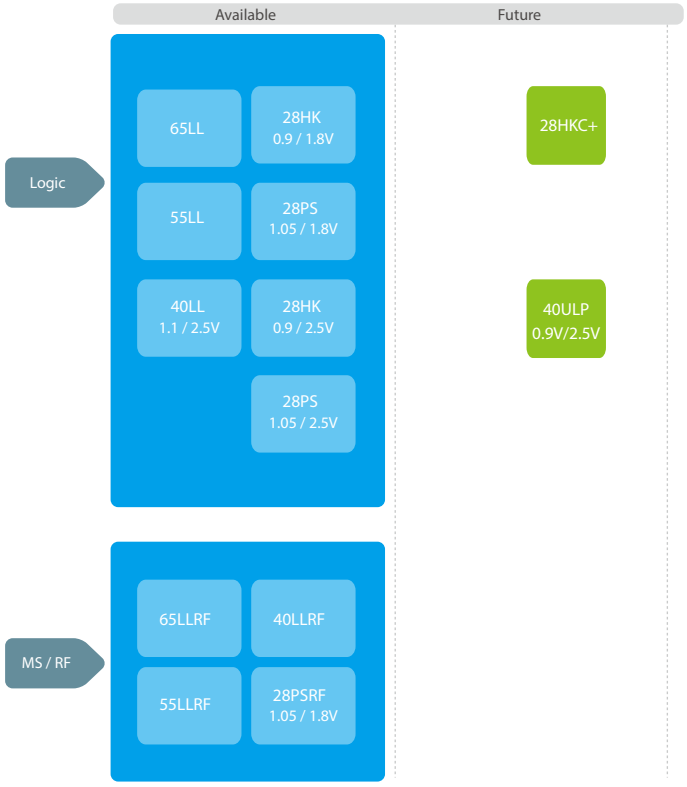




Highlights and MPW Schedules

	28nm
IP Readiness	• Foundation (162) • Analog Mixed Signal (39) • Memory Compiler (31) • High Speed Interface (50) • Embedded Memory (35)
MPW schedule	Y2018: Mar, Jun, Sep, Oct, Dec
Technology Maturity	• 28PS Mass Production Since 2H2015 • 28HK wafers shipment from 2016 • Proven IP Platform
PDK Readiness	• Design Rule • Pcell Library • Model • DFM • DRC • Power Analysis • Layout • Process • LVS • Reliability • PEX Qualification

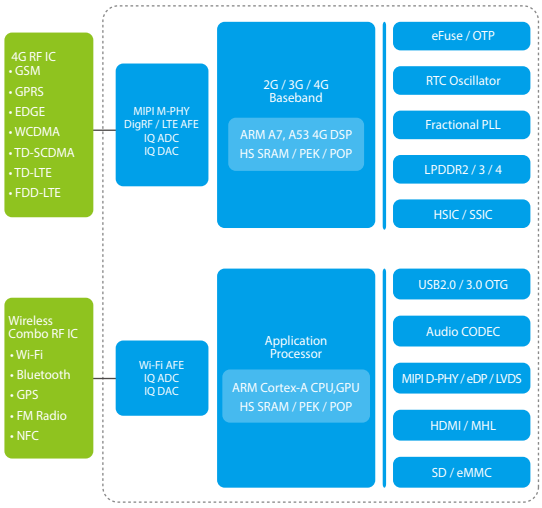
SMIC Process Technology Roadmap



28nm IP Offerings on Application Platforms

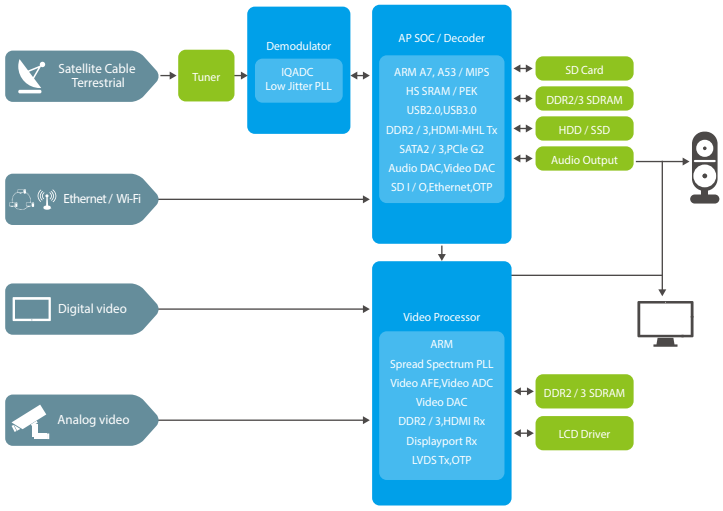
28HKC+ IP Platform for Mobile Computing

Smartphone / Wireless Connectivity / Tablet / Thin-n-light Laptop



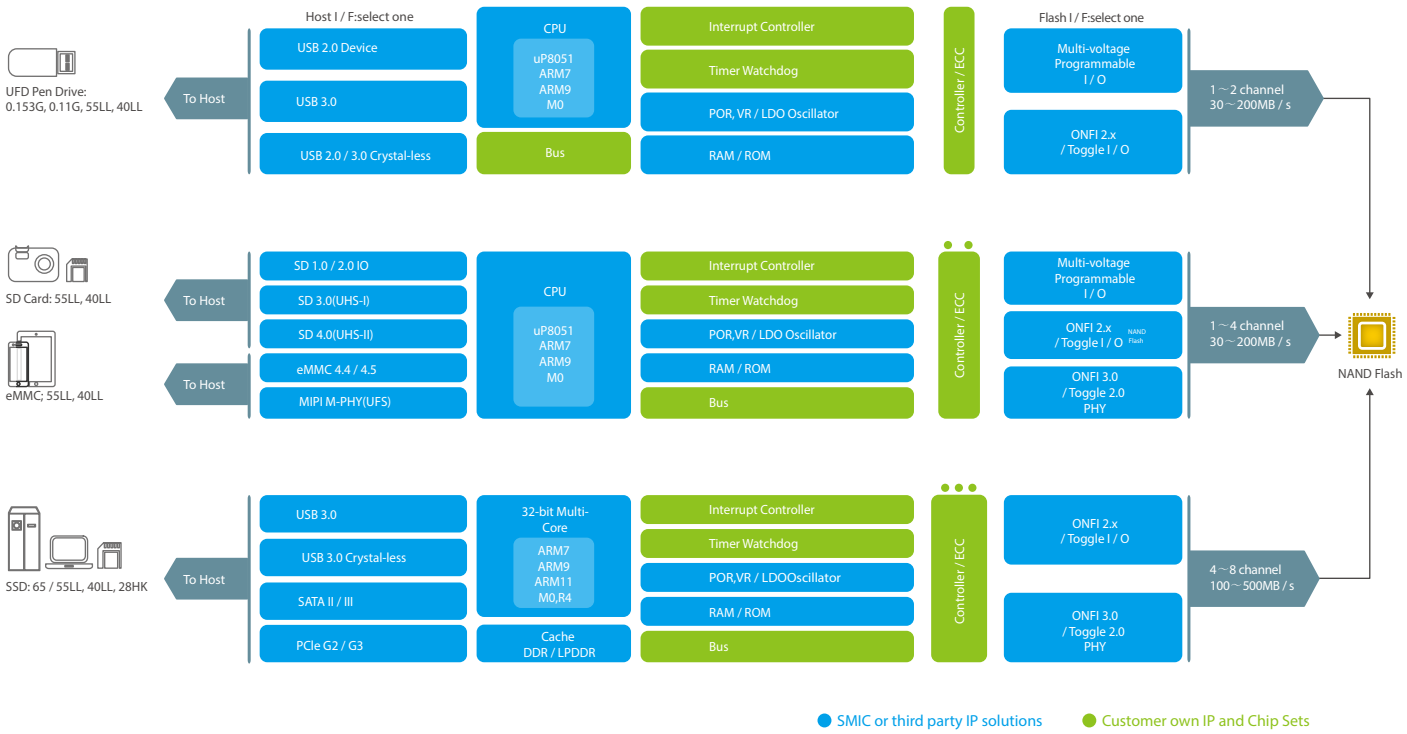
28HK IP Platform for Digital Home

Smart TV / Set Top Box / OTT



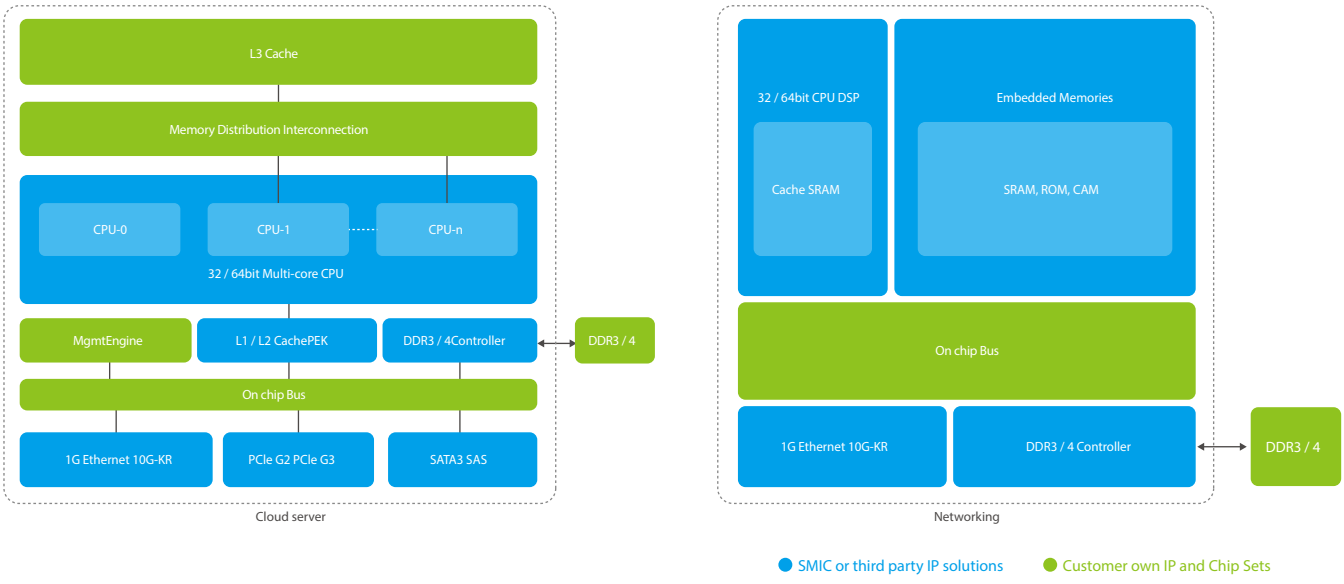
28HK IP Platform for Mobile Storage

SSD / eMMC / SD Card / UFD Pen Drive

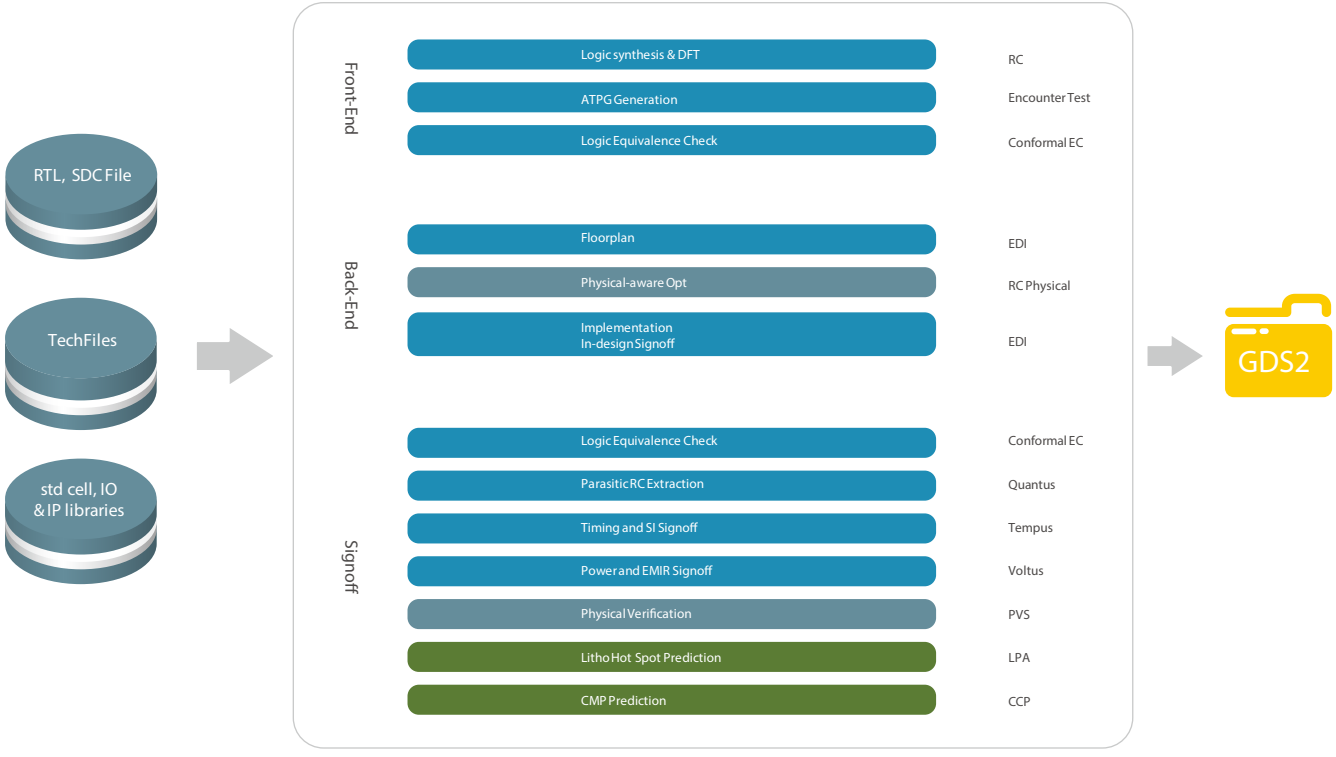


28HK IP Platform for Data Center

Cloud Server / Switch / Router / Gateway / Fiber Optics Networking



28nm Reference Flow 6.0



40nm

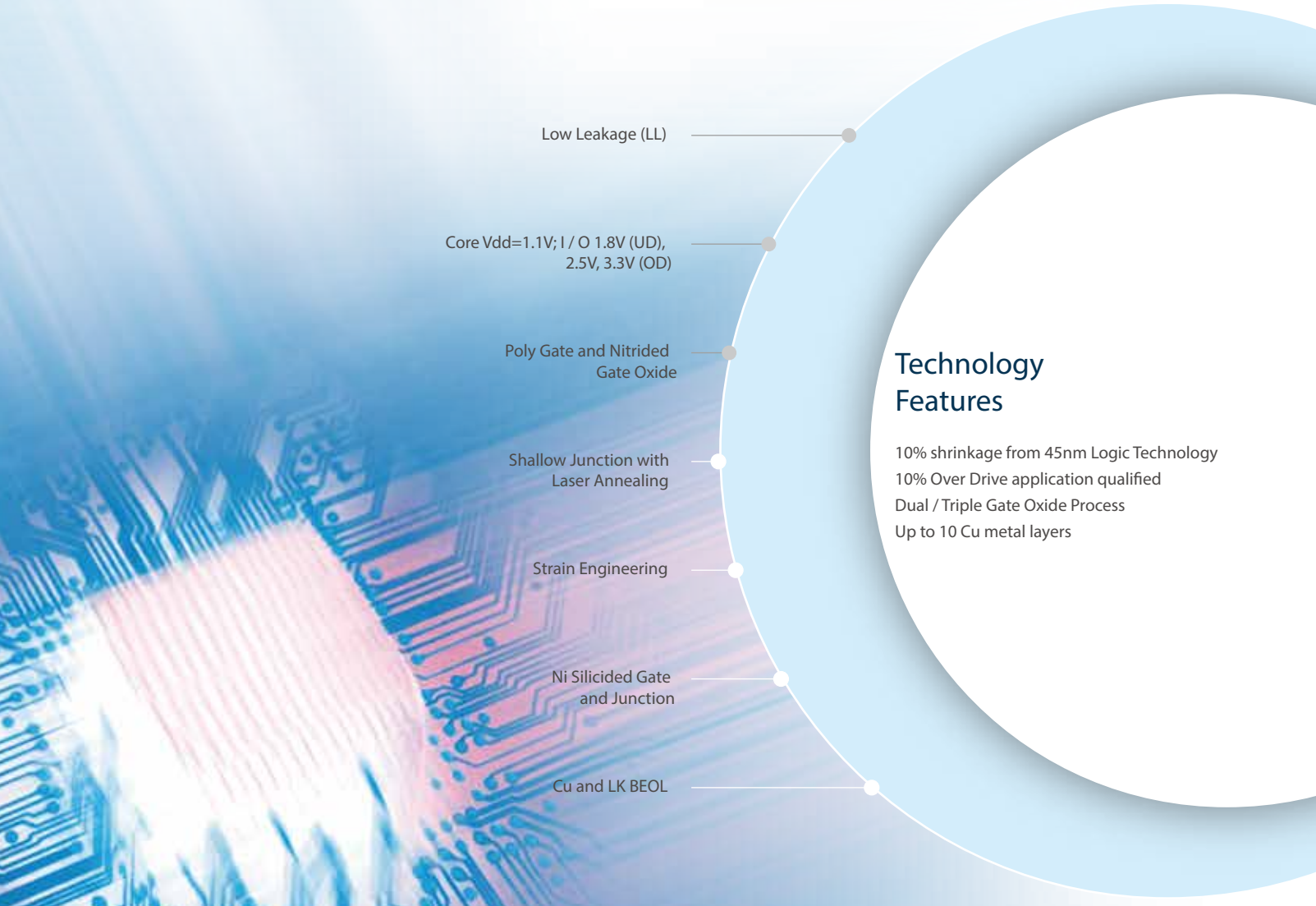
Process Technology

• As the first foundry in mainland China to offer 40nm technology, SMIC has demonstrated the technology and production experience to service our customers' needs on 40nm. SMIC's 40nm business made up to 20.9% of company revenue in 2017, and SMIC continues to gain customers' recognition and confidence with this stable process technology offering.

• SMIC offers its 40nm Low Leakage (LL) process with 1.1V core devices (with three threshold voltage levels), as well as 1.8V, 2.5V, and 3.3V I / O options to meet design requirements on various applications. SMIC's 40nm logic process combines advanced immersion lithography, strain engineering, ultra shallow junctions, and low-k inter-metal dielectrics for power and performance optimization. SMIC's 40nm technology node is in production in the Shanghai 300mm Fab, and in SMIC's Beijing 300mm Fab to support future growth demands.

• SMIC's 40nm RF technology is built on 40nm LL baseline. The good matching between RF models and RF silicon devices enables the mass production of 40nm LL RF technology in the application of wireless connectivity.

• SMIC's 40nm process offers rich IP platforms available for mobile computing, mobile storage, and digital home products. SMIC's 40nm enables high performance and low power consumption IC devices, such as baseband processors, application processors, high definition video processors and IC for consumer and communication equipments.



Technology Features

10% shrinkage from 45nm Logic Technology
10% Over Drive application qualified
Dual / Triple Gate Oxide Process
Up to 10 Cu metal layers

40nm Logic Standard Offerings

Standard Offering		40LL
Core Device (1.1V)	HVt	√
	SVt	√
	LVt	√
I / O Device	2.5V	√
	2.5V OD 3.3V	√
	2.5V UD 1.8V	√
Memory	SP HD SRAM (0.242μm^2)	√
	SP HP SRAM (0.303μm^2)	√
	DP HD SRAM (0.477μm^2)	√
	DP HP SRAM (0.600μm^2)	√

Highlight and MPW Schedules

	40nm
Number of IP Readiness	• Foundation (106) • Analog Mixed Signal (31) • High Speed Interface (26) • DDR Memory (9) • Embedded Memory (8)
MPW schedule	Y2018 BJ Fab: Mar, May, Aug, Oct, Dec
Technology Maturity	• Contributed 20.9% of 2017 revenue • Reached defect density • ULVt Option available for reaching1.55GHz on Cortex A9 • Wi-Fi & RF applications chips in mass production
PDK Readiness	• Design Rule • Model • DRC • Layout • LVS • PEX • Pcell Library • DFM • Power Analysis • Process • Reliability Qualification

Rich IP Portfolio

• A total of 180 IPs are available on SMIC's 40nm technology platform, supporting applications in mobile computing, mobile storage and digital home.

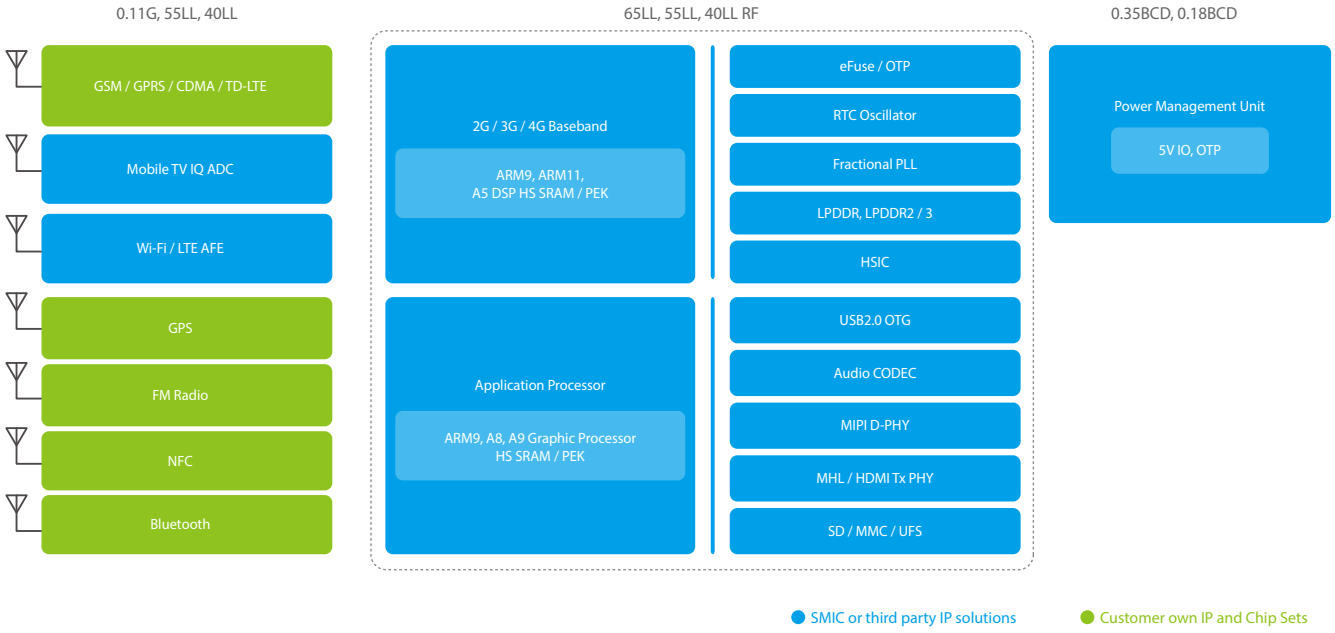
• IP portfolio for mobile computing applications covering mobile handset and tablet products.

• IP portfolio for both digital home applications and mobile storage covering DTV processor and STB SoC products.

IP Platform

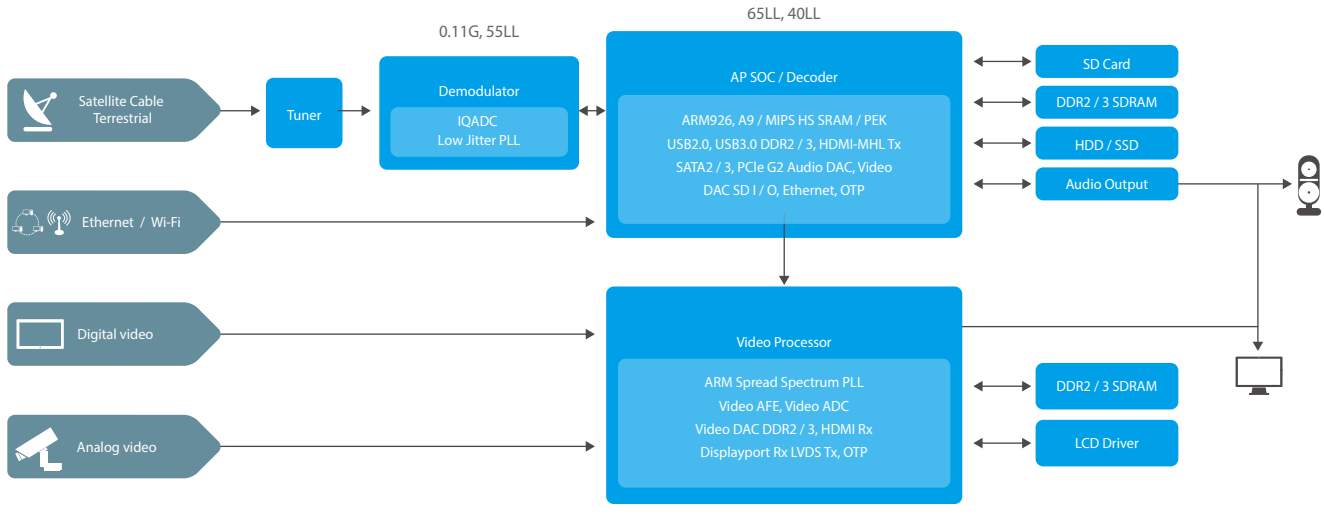
Mobile Computing

Smartphone / Tablet / Wireless Connectivity



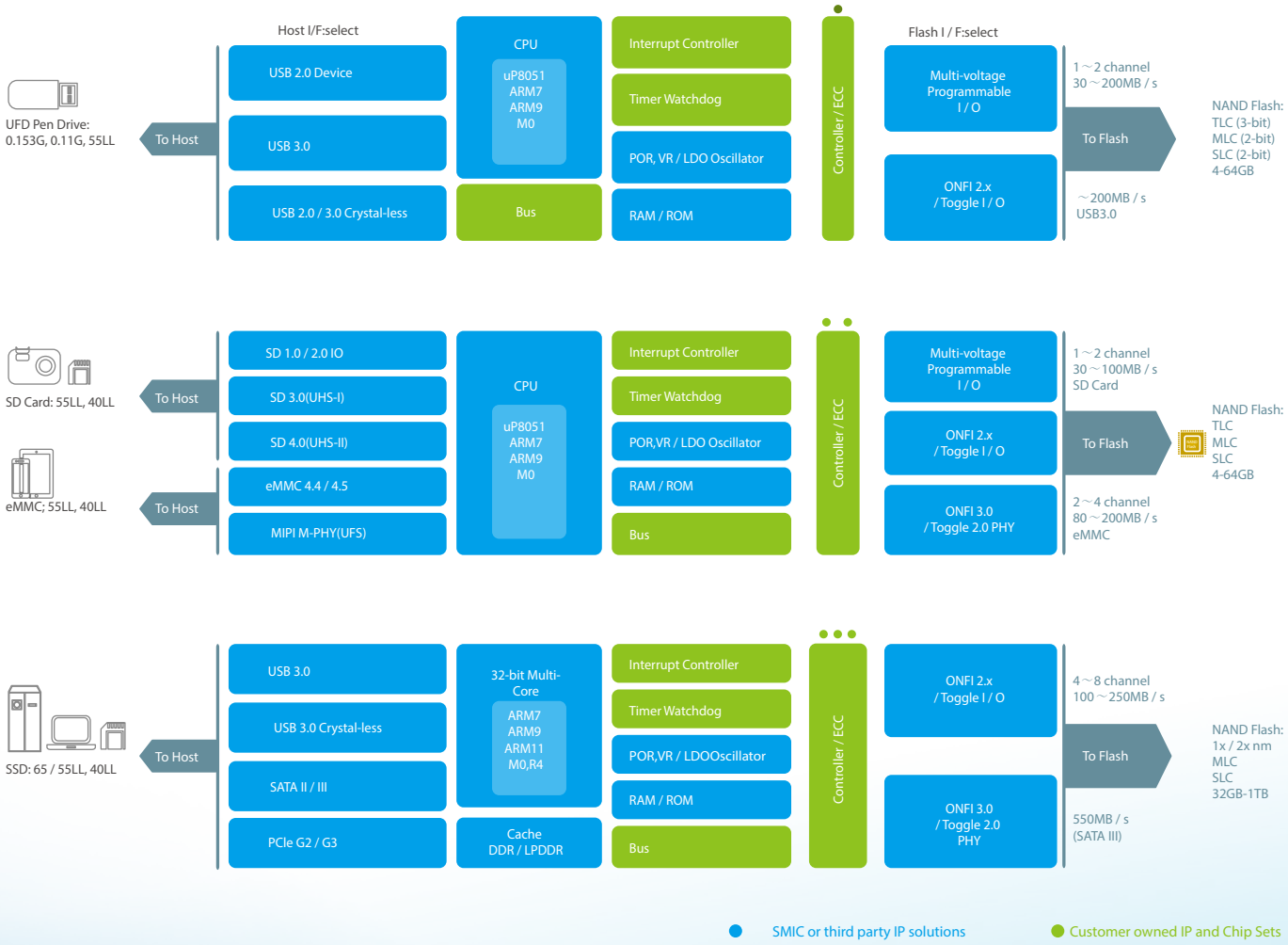
Digital Home

Smart TV / Set Top Box / TV Dongle / Over-The-Top



Mobile Storage

UFD Pen Drive / SD Card / eMMC (Embedded NAND) / SSD



65nm / 55nm

Process Technology

SMIC's 65nm / 55nm process technology platform supports a wide range of circuit designs, including Logic, Mixed Signal, RF, NOR Flash and eFlash, with BCD and CIS extensions in development. With years of experience on 65 / 55nm mass production, SMIC has been successfully manufacturing customers' IC products on 65 / 55nm for applications such as mobile computing, digital home and mobile storage. SMIC's 65 / 55nm solutions provide customers with high and stable yields and rich proven IP platforms. Both technology nodes are in mass production in our Beijing 300mm Fab 1.

Logic Technology

SMIC's 65nm / 55nm logic technology combines improved performance and reduced power consumption, and increases design possibilities and cost efficiency. The baseline logic process offering for the Low Leakage (LL) platform has three threshold voltages core device options and 1.8V, 2.5V, 3.3V I / O options to provide a flexible design platform. Critical IP is ready for 65 / 55nm LL production, along with 55nm Embedded Flash (eFlash) for MCU & Smart Card applications, which are currently shipping.

Technology Features

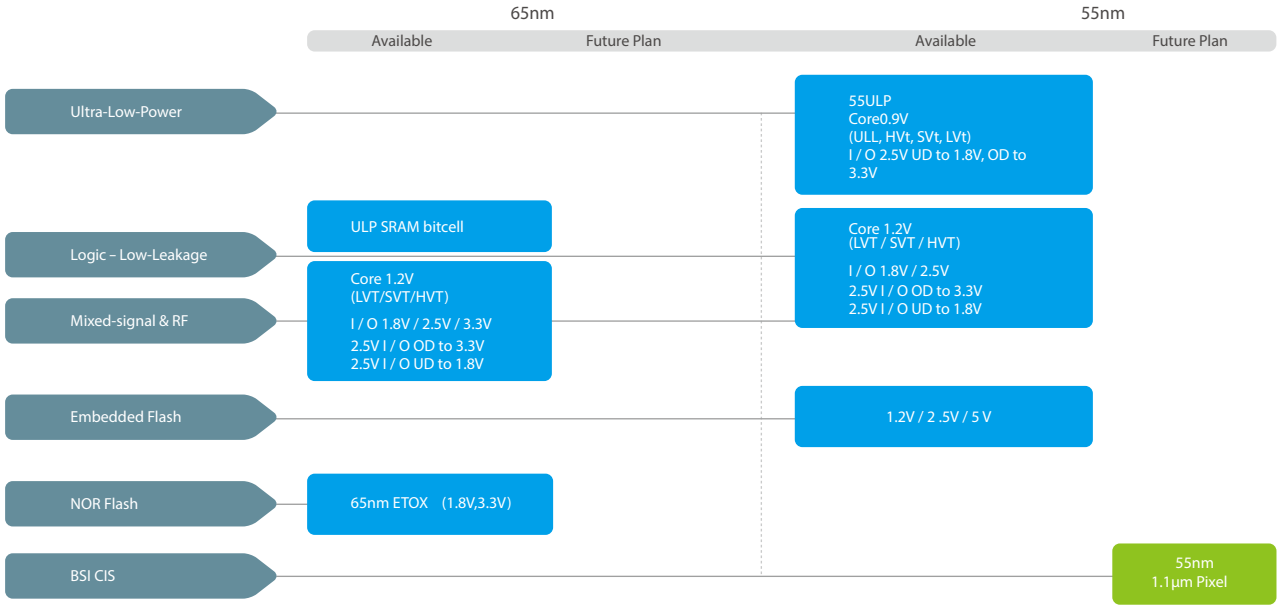
- Core device voltage: 1.2V
- I / O device options: 1.8V, 2.5V, and 3.3V
- Dual damascene Cu + low-k (3.0) as BEOL interconnect
- NiSi Process

Logic Standard Offerings

Standard Offering		65LL	55LL (1.2V)
Core Device (1.2V)	HVt	√	√
	SVt	√	√
	LVt	√	√
I / O Device	1.8V	√	√
	2.5V	√	√
	2.5V OD 3.3V	√	√
	2.5V UD 1.8V	√	√
	3.3V	√	
Memory	SP HD SRAM	0.525μm²	0.425μm²*
	SP HP SRAM	0.620μm²	0.502μm²*
	DP HD SRAM	0.974μm²	0.789μm²*
	DP HP SRAM	1.158μm²	0.938μm²*

* based on Memory post shrink

Technology Progress & Plan



Note: Green solid line box indicates the technology is ready for risk production.
Blue solid line box indicates the technology is in developmet.
Blue dot line means under planning.

Highlights and MPW Schedules

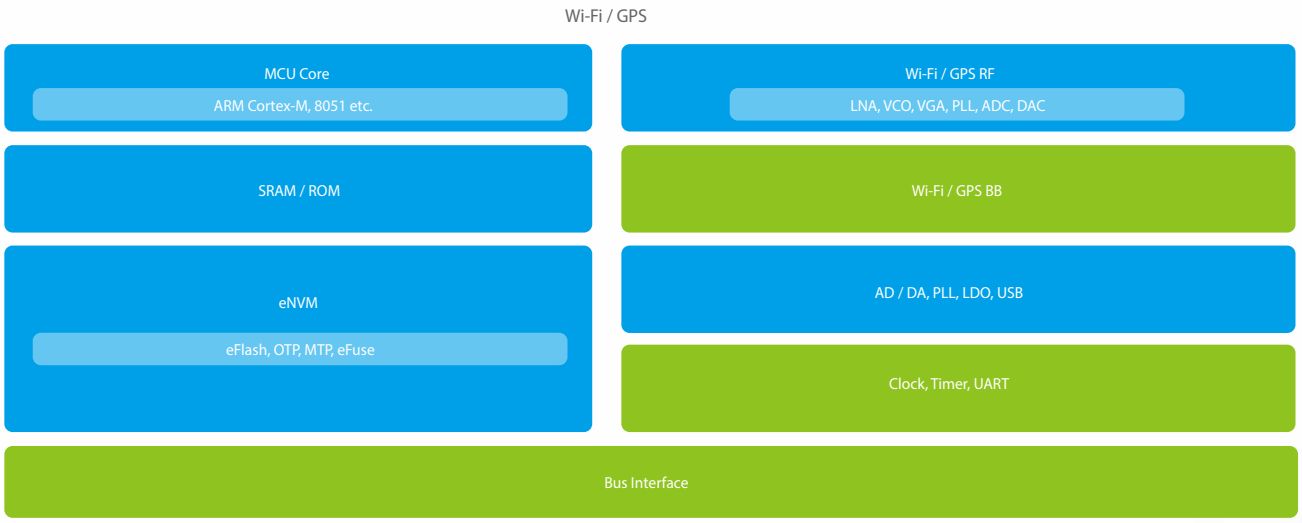
	IP Readiness	MPW schedule	Technology Maturity	PDK Readiness
55nm	• Foundation (97) • Analog Mixed Signal (32) • High Speed Interface (21) • DDR Memory (4) • Embedded Memory (4) • RF (4)	Y2018: Feb, Mar, May, Jun, Aug, Sep, Nov, Dec	• Mass Production Since 2011 • Shipped >300k wafers (12") to date • Stable high yield • Proven IP Platform	• Design Rule • Model • DRC • Layout • LVS • PEX • Pcell Library • DFM • Power Analysis • Process • Reliability Qualification

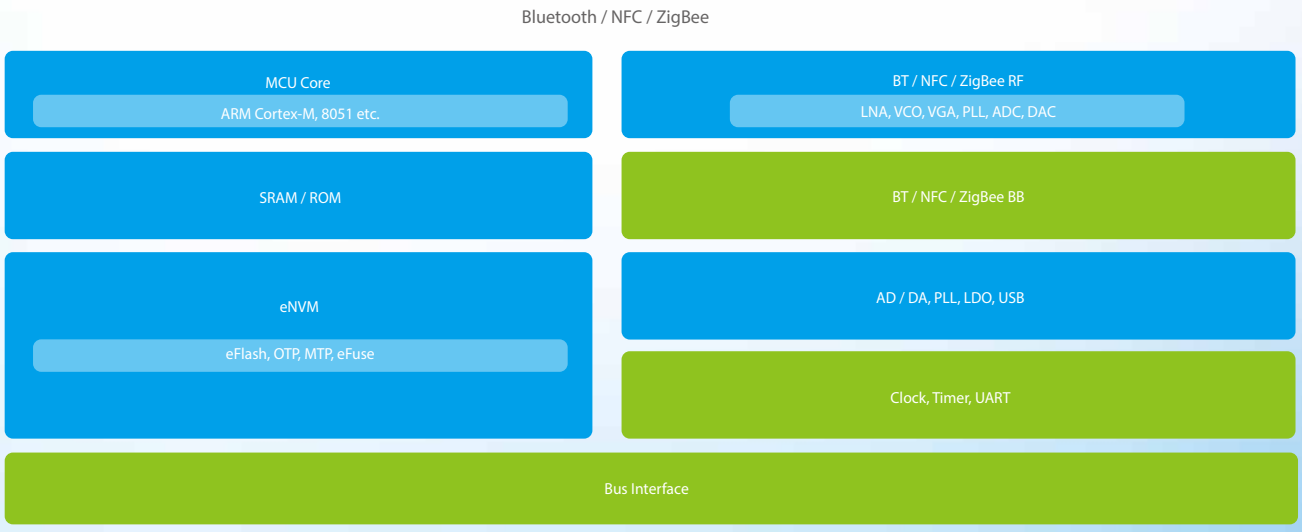
	IP Readiness	MPW schedule	Technology Maturity	PDK Readiness
65nm	• Foundation (98) • Analog Mixed Signal (7) • High Speed Interface (20) • DDR Memory (10) • Embedded Memory (2) • Video/Audio (10) • Wireless (7) • Processor (7)	Y2018: -	• Mass Production Since 2009 • Shipped >900k wafers (12") to date • Stable high yield • Rich and Proven IP Platform	• Design Rule • Model • DRC • Layout • LVS • PEX • Pcell Library • DFM • Power Analysis • Process • Reliability Qualification

55nm Wireless Connectivity IP Portfolio

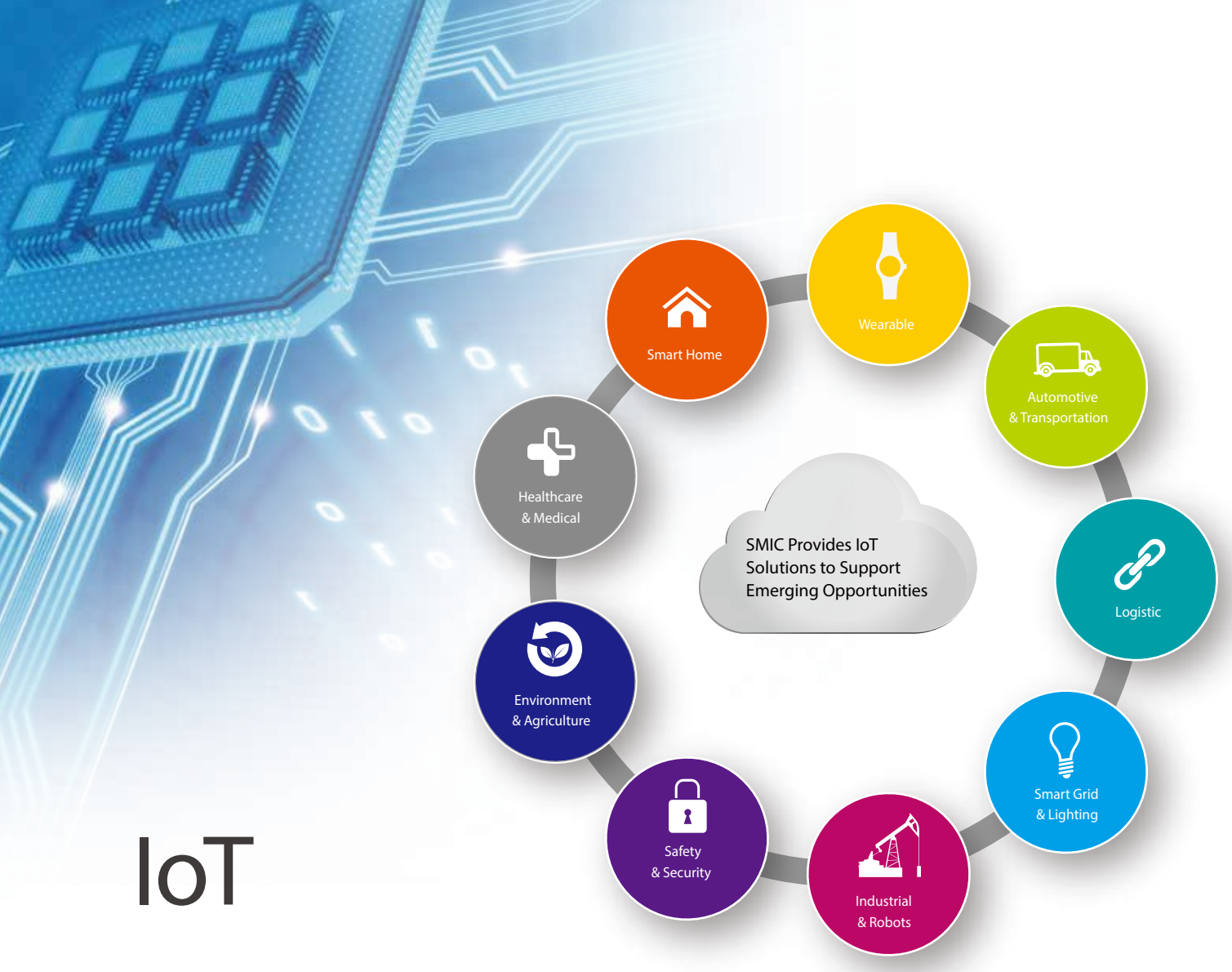
• SMIC's 65nm / 55nm RF / IoT IP Portfolios support product applications in Wi-Fi, GPS, Bluetooth, NFC, ZigBee and wireless combo.

• In particular, with eFlash (embededd Flash) and RF technologies, SMIC's 55nm Wireless solutions are suitable to meet IoT related wireless connectivity demands.





● SMIC or third party IP solutions ● Customer owned IP and Chip Sets



IoT

SMIC Technology Portfolio

• The Internet of Things (IoT) market is expected to cover a wide range of applications, including smart home, wearable devices, healthcare & medical, smart grid & lighting, environment & agriculture, industrial & robotics, automotive & transportation, safety & security, logistics and others. These applications require many essential IC component building blocks, such as logic devices, embedded microcontrollers, wireless connectivity devices, MEMS sensors, power IC and many other IC devices.

• With continuous technology innovation and a focus on specialty process technologies, SMIC offers complete one-stop service and technologies to meet the growing IoT market demands. Bundling SMIC's manufacturing and chip design services with our world-renowned partners' offerings, SMIC provides professional, secured and complete turnkey services to enable IC design houses to shorten their time to market, reduce costs and establish a competitive position in the emerging IoT market.

SMIC's IoT Technology Platforms

Low Power Logic and RF Technologies

• SMIC's range of low power logic and RF process technologies from 0.18μm down to 28nm enables IC design houses to produce ICs for IoT applications in smart home, wearable devices, healthcare & medical, smart grid & lighting, environment & agriculture, industrial & robotics, automotive & transportation, safety & security, logistics and others.

eFlash Technology

• SMIC's 0.13μm and 55nm low power embedded Flash (eFlash) technologies offer integrated internal memory solutions, with proven, stable mass production.

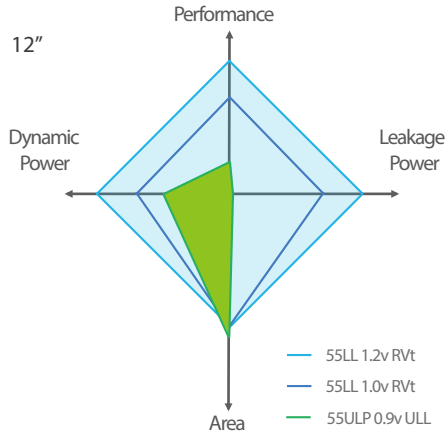
• SMIC's 55nm low leakage eFlash technology for Smart Card applications has passed strict product reliability tests and has been launched into the market successfully since 2Q14.

ULP (Ultra Low Power) Technology Platforms

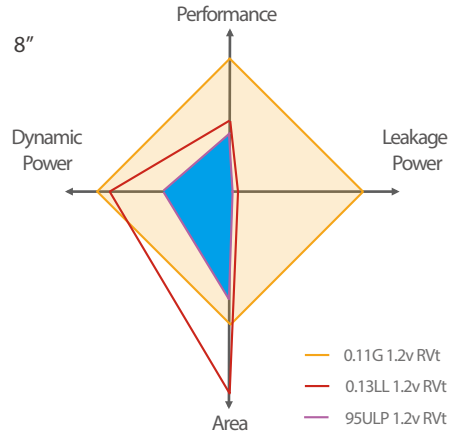
• SMIC's competitive SPOCULL™ 95nm ULP and 55nm ULP technologies are the basis for our main ULP technology nodes.

• With the reduction of product operating voltage, and optimization of device and IP design, SMIC's ULP solutions can greatly reduce both dynamic and static power consumption of products, extend standby time and system power usage efficiency, and optimize cost structure and performance by integrating RF and embedded memory technologies.

• Performannce - Power - Area Comparison:



ARM Cortex-M3 Synthesis



ARM Cortex-M0 Synthesis

* Area optimization has not been applied in all the synthesis.

MEMS Sensor Technology Platform

• SMIC's MEMS sensor technology presently supports two kinds of MEMS applications: Acoustic and Inertial sensors.

• Acoustic sensors: Microphone / Pressure sensors with High SNR solution for growing Smartphone and Smart-Home applications as well as IoT's huge potential.

• Inertial sensors: Monolithic CMOS+MEMS solution provides competitive performance for the Motion sensor market including Accelerometer, Gyro IMU solution in Smartphone, Wearable and IoT segments.

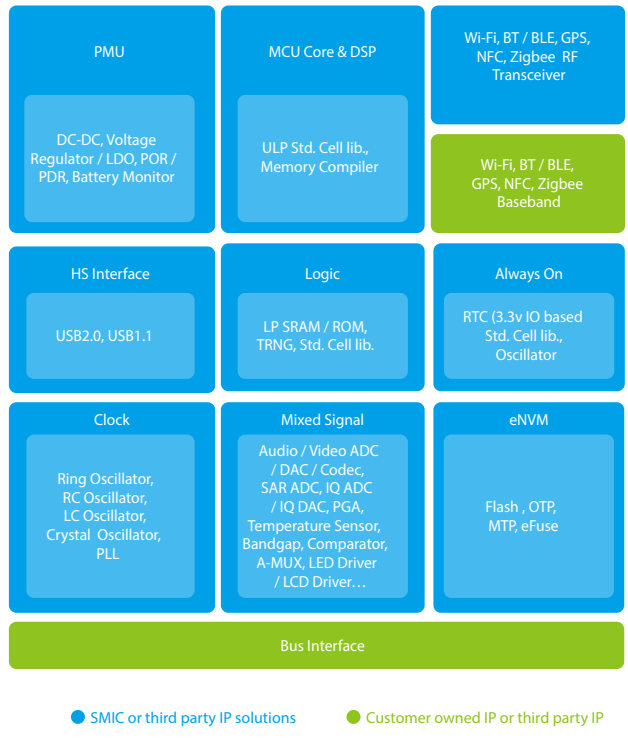
• Going forward, SMIC plans to extend its MEMS capabilities into Optical, BioTech, RF, Chemical and Power application platforms.

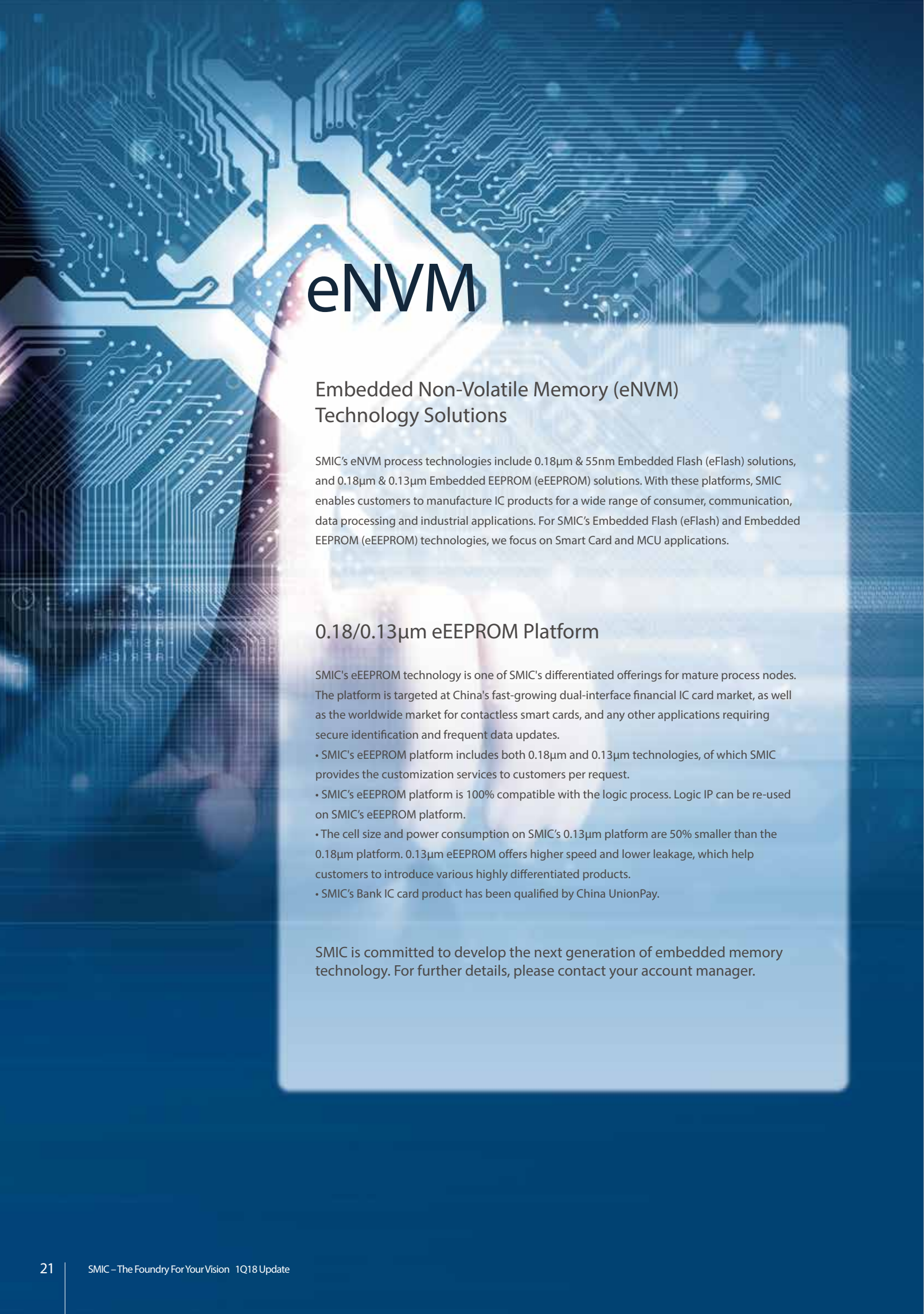
One-stop Solution for IoT Products

• SMIC provides a one-stop solution for SoC, SiP, WLP and 2.5D packaging through integration of RF, Baseband, MCU, eFlash, and MEMS Sensors to help customers shorten the production cycle and optimize the product cost and form factor.

IP Platforms for IoT

SMIC offers IP platforms and total solutions for RF, baseband, eNVM, ULP and Analog.





eNVM

Embedded Non-Volatile Memory (eNVM) Technology Solutions

SMIC's eNVM process technologies include 0.18µm & 55nm Embedded Flash (eFlash) solutions, and 0.18µm & 0.13µm Embedded EEPROM (eEEPROM) solutions. With these platforms, SMIC enables customers to manufacture IC products for a wide range of consumer, communication, data processing and industrial applications. For SMIC's Embedded Flash (eFlash) and Embedded EEPROM (eEEPROM) technologies, we focus on Smart Card and MCU applications.

0.18/0.13µm eEEPROM Platform

SMIC's eEEPROM technology is one of SMIC's differentiated offerings for mature process nodes. The platform is targeted at China's fast-growing dual-interface financial IC card market, as well as the worldwide market for contactless smart cards, and any other applications requiring secure identification and frequent data updates.

- SMIC's eEEPROM platform includes both 0.18µm and 0.13µm technologies, of which SMIC provides the customization services to customers per request.
- SMIC's eEEPROM platform is 100% compatible with the logic process. Logic IP can be re-used on SMIC's eEEPROM platform.
- The cell size and power consumption on SMIC's 0.13µm platform are 50% smaller than the 0.18µm platform. 0.13µm eEEPROM offers higher speed and lower leakage, which help customers to introduce various highly differentiated products.
- SMIC's Bank IC card product has been qualified by China UnionPay.

SMIC is committed to develop the next generation of embedded memory technology. For further details, please contact your account manager.

55nm eFlash Platform

SMIC's 55nm Low Leakage (LL) based eFlash platform offers high-performance and competitive solutions. SMIC used this platform to successfully launch the first advanced 55nm smart card in the China market. With the benefits of smaller die size, lower power consumption and faster performance, SMIC's 55nm eFlash is in mass production and is being widely recognized by customers.

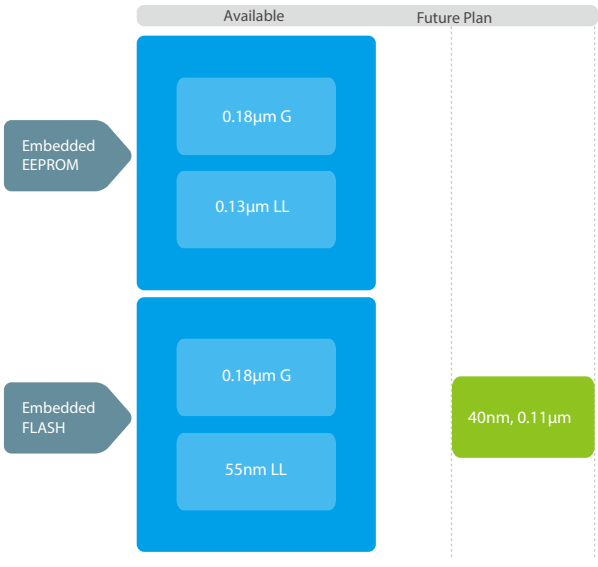
- 55LL eFlash has completed logic compatibility and all of SMIC's extensive 1.2V logic library IPs can be applied to this embedded platform.
- The 1.2V core device reduces power consumption and maximizes performance.
- Performance and reliability have been enhanced with the use of Cu-BEoL (Back-end of Line).
- The smaller flash cell size allows the application of large flash memories in small die sizes.
- The technology platform has passed product reliability testing and can meet the stringent application requirements of standard smart cards.
- We can offer a lower power and higher speed macro for the IoT MCU market.
- SMIC is continuing to evolve the 55nm eFlash offering toward smaller macro sizes.

eNVM Standard Offerings

Standard Offering		55eNVM (1.2V)
Core Device	HVt	√
	SVt	√
	LVt	√
I / O Device	2.5V	√
	2.5V OD 3.3V	√
	2.5V UD 1.8V	√
	3.3V	√
Memory	SP SRAM	0.425μm²*
	DP SRAM	0.789μm²*

* based on Memory post shrink

eNVM Technology Roadmap

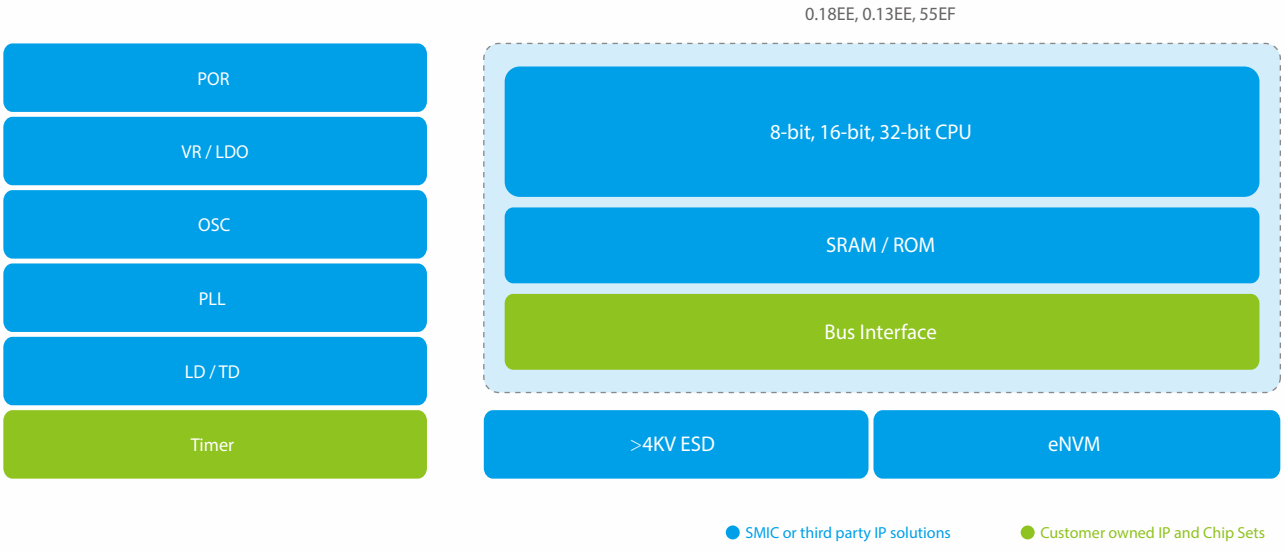


Highlight and MPW Schedules

	55nm eNVM
IP Readiness	• Foundation (38)
MPW schedule	Y2018: BJ Fab-Mar, May, Aug, Dec
Technology Maturity	• Accumulated > 2B units shipment • Reliability meet JEDEC specifications • Endurance > 100K cycles • Retention 25 years up to 85℃

IP Platform for Smart Card

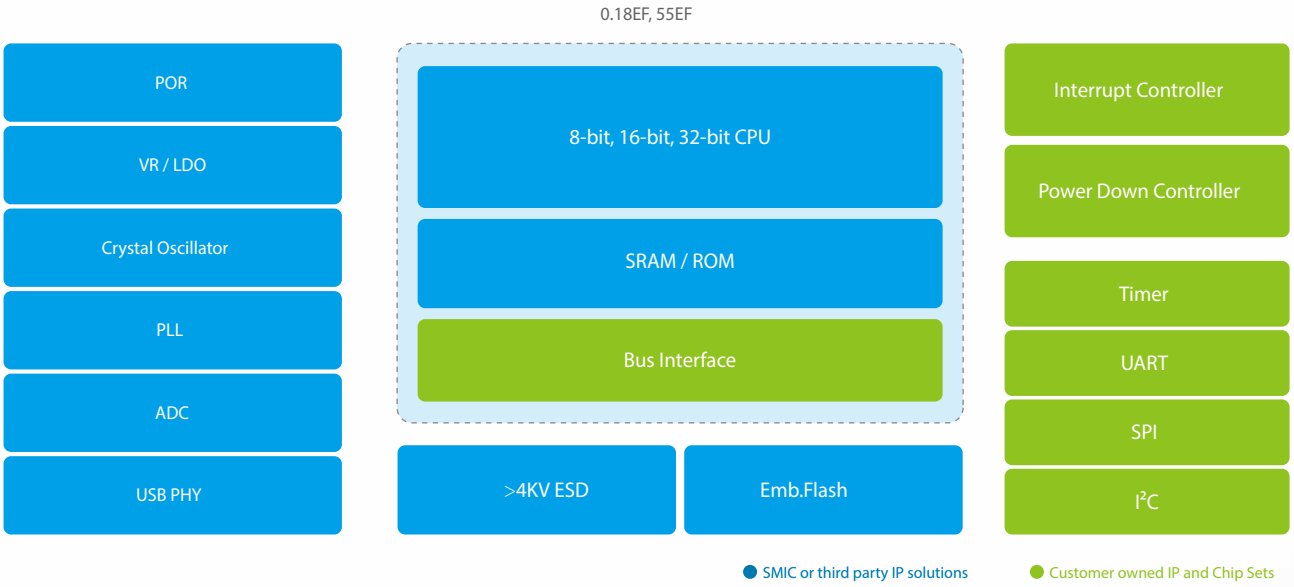
Social Security Card / Transportation Card / Financial IC Card / Bank Card



IP	Provider	55nm EF 1.2V / 2.5V / 5V	0.13μm EE 1.5V / 3.3V / 15.5V	0.18μm EE 1.8V / 3.3V / 15.5V
Standard Cell Library	SMIC, Innopower, M31, Verisilicon	√	√	√
Enhanced Library	SMIC	√		
Standard Memory Compiler	SMIC, Innopower, M31, Verisilicon	√	√	√
Standard IO	SMIC	√	√	√
Premium IO	SMIC	√	√	√
Crystal Oscillator IO	SMIC	√	√	√
EEPROM	SMIC		√	√
PLL	SMIC, ACTT	√	√	√
POR	SMIC, ACTT	√		√
Regulator	SMIC, ACTT	√	√	√
ROSC	SMIC	√	√	√
Flash	SMIC, ISSI	√		
Sensor	SMIC, Brite, ACTT	√	√	√

IP Platform for MCU

Consumer / Communication / Data Processing / Touch Controller / Automotive / Industrial



IP	Provider	55nm EF 1.2V / 2.5V / 5V	0.18μm EF 1.8V / 3.3V / 5V
Standard Cell Library	SMIC, ARM, InnoPower, Verisilicon	√	√
Standard Memory Compiler	SMIC, ARM, InnoPower, Mentor, Synopsys, Verisilicon	√	√
Premium IO	SMIC	√	√
Standard IO	SMIC, Verisilicon	√	√
Crystal Oscillator IO	SMIC, ACTT	√	√
ADC	SMIC, ACTT, IPGoal, Verisilicon	√	√
PLL	SMIC, ACTT, Silicon Creations, Verisilicon	√	√
POR	SMIC, ACTT	√	√
Regulator	SMIC, Brite, ACTT	√	√
ROSC	SMIC	√	√
USB	ACTT, Brite, InnoPower, Innosilic on, M31	√	
Flash	SMIC, ISSI	√	√

SPOCULL™ Technology Platform

SMIC is pleased to offer the SPOCULL™ technology platform as one of SMIC's key specialty technologies. SPOCULL™ stands for SMIC POly Contact for Ultra Low Leakage and includes SPOCULL™ 95HV and SPOCULL™ 95ULP technologies. With the benefits of low leakage, low power consumption and high performance, SMIC can meet customers' various chip demands such as analog, RF, DDIC, embedded memory and others.

SPOCULL™: SMIC POly Contact for Ultra Low Leakage

- Differentiated by State-of-the-Art Technology
  - —Continue to push 8" process capability envelope
  - —Performance driven technology

- Target Applications:
  - —SPOCULL™ 95HV (1.5V / 6V / 7.2V / 3 2V): High resolution DDIC, AMOLED, in-cell TDDIC, Driver IC
  - —SPOCULL™ 95ULP (1.2V / 3.3V): Ultra low power MCU, High performance analog & RF for IoT applications

Highest Density Solution at 8″ Foundry Technology
~2X Gate Density increase compare to 0.13LL
Embedded NVM
Built-in MTP to enable system level applications
Proven excellent performance
SPOCULL™ Value Propositions
Excellent Transistors Characteristics
Low Leakage, Low Power, Low Parasitic Capacitance
Smallest SRAM at 8″ Foundry Technology
Cell size comparable to 80nm node: 0.739um2
Ultra-Low-Leakage SRAM (0.4pA/cell @ 1.2V)

Automotive

SMIC offers automotive IC products for Infotainment (IVI), ADAS, Telematics, Body/Conveniences, Motor Drivers, Power Management, LIN/CAN, and Sensing Interfaces. SMIC is committed to serve its customers with the highest quality and reliability in the three main areas automotive semiconductor products are used:

Digital Domain

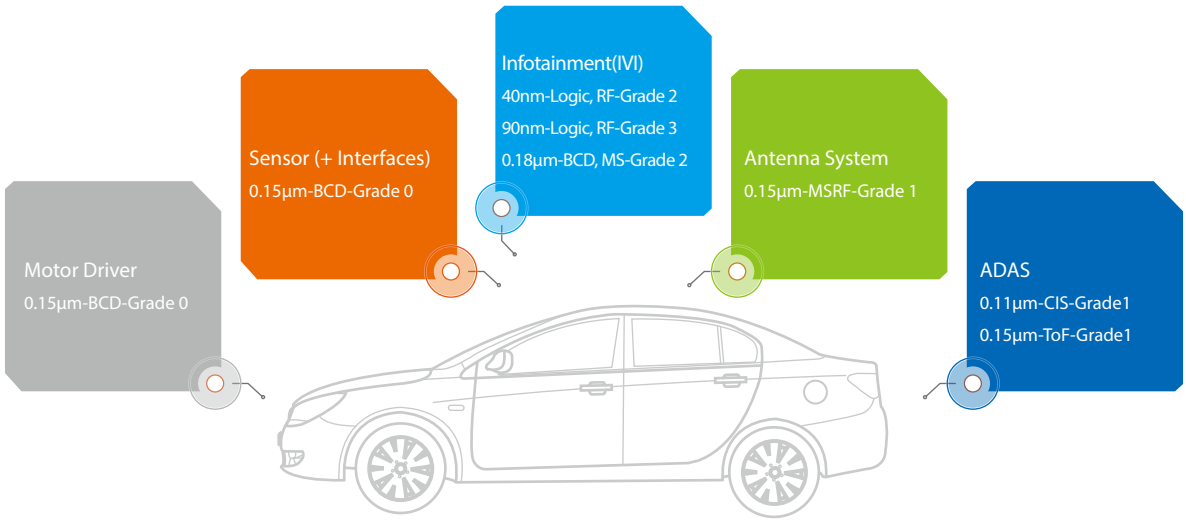
- For ADAS, Infotainment, and Telematics
- Technologies 55nm and below (incl. eNVM)

Analog Domain

- For Interfaces, Bus (LIN, CAN), and Power Drivers
- Technologies 90nm and above including BCD

Sensing Domain

- High-end CIS, TOF, LIDAR, and SPAD



and More Automotive Applications (Preinstalled & Aftersales)

Certifications like ISO/TS-16949 and AEC-Q-100-Rev G are the baseline for automotive products.
SMIC's automotive offerings follow these requirements and even go beyond through continual improvement. We strive for outstanding quality and zero defects.

SMIC is focused on:

- Qualified Production (incl. QMS) and Service Centers
- Process Qualifications and Quality Control in Production
- Design Enablement for high-quality designs
- Automotive focused Technology offerings

Size	Fab	Qualified Since
8″	SH 200mm Fab	1Q04
	TJ 200mm Fab1	4Q05
	SZ 200mm Fab	3Q16
	LF 200mm Fab	2Q09
12″	SH 300mm Fab	4Q11
	BJ 300mm Fab1	4Q15
	BJ 300mm Fab2	4Q16

bsi.

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO/TS 16949:2009

This is to certify that: Semiconductor Manufacturing International (Shanghai) Corporation
No. 18, Zhangjiang Road
Pudong New Area
Shanghai
201203
China

中芯国际集成电路制造（上海）有限公司
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邮编：201203

Holds Certificate No: TS 642743

and operates a Quality Management System which complies with the requirements of ISO/TS 16949:2009 for the following scope:

The manufacture of large scale integration, very large scale integration and ultra large scale integration. Permitted Exclusions: Product design.
大规模、超大规模和特大规模集成电路的制造。
允许例减：产品设计。

For and on behalf of BSI:

Managing Director, BSI (China), Michael Lam

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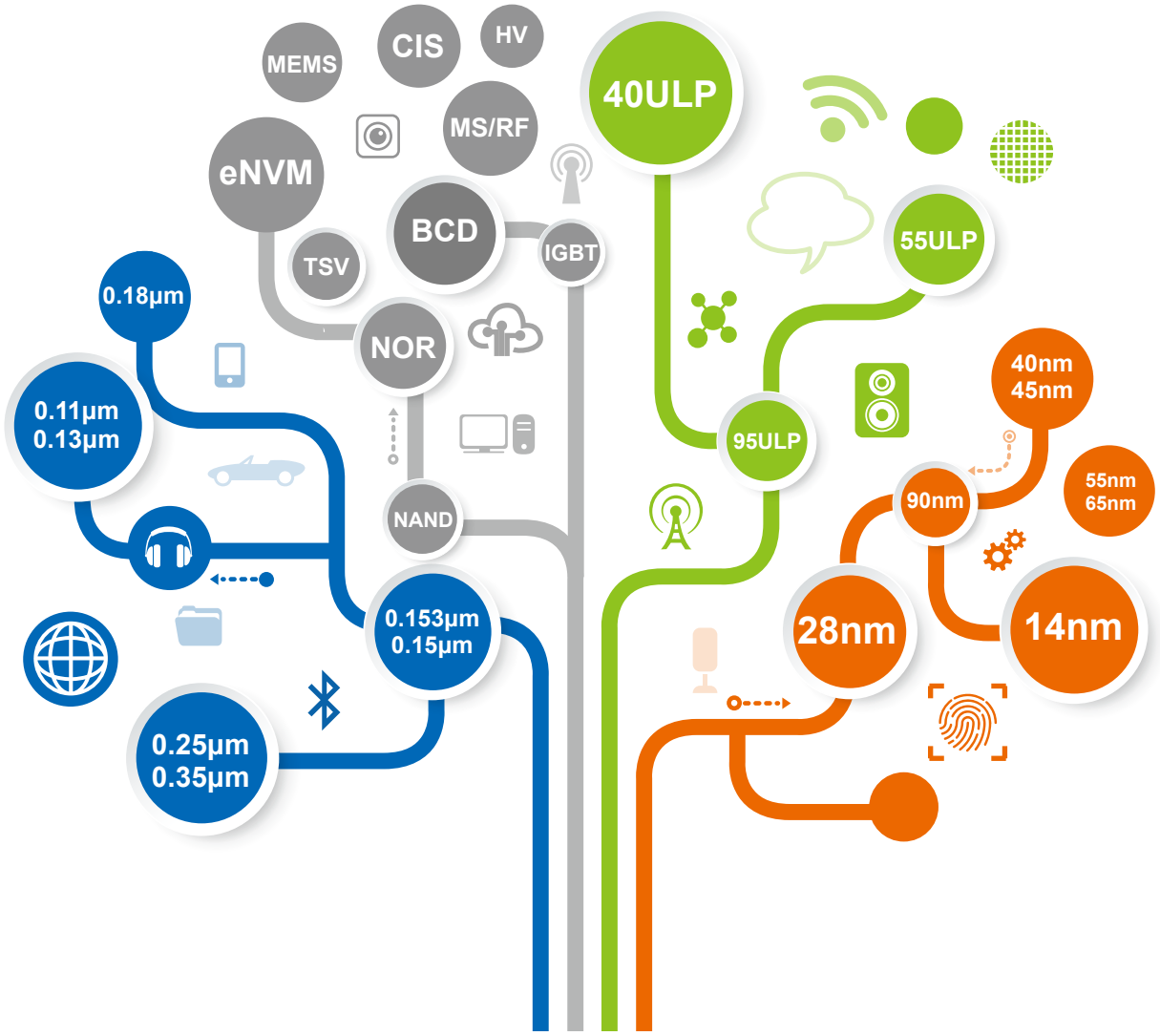
Page: 1 of 1

making excellence a habit.



BUILDING INSPIRATION TOGETHER

SMIC

This picture album adopt green paper

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Safe Harbor Statements

(Under the Private Securities Litigation Reform Act of 1995)

This document contains, in addition to historical information, "forward-looking statements" within the meaning of the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on SMIC's current assumptions, expectations and projections about future events. SMIC uses words like "believe," "anticipate," "intend," "estimate," "expect," "project" and similar expressions to identify forward looking statements, although not all forward-looking statements contain these words. These forward-looking statements are necessarily estimates reflecting the best judgment of SMIC's senior management and involve significant risks, both known and unknown, uncertainties and other factors that may cause SMIC's actual performance, financial condition or results of operations to be materially different from those suggested by the forward-looking statements including, among others, risks associated with cyclicality and market conditions in the semiconductor industry, intense competition, timely wafer acceptance by SMIC's customers, timely introduction of new technologies, SMIC's ability to ramp new products into volume, supply and demand for semiconductor foundry services, industry overcapacity, shortages in equipment, components and raw materials, availability of manufacturing capacity, financial stability in end markets and intensive intellectual property litigation in high tech industry.

In addition to the information contained in this document, you should also consider the information contained in our other filings with the SEC, including our annual report on Form 20-F filed with the SEC on April 27, 2018, especially in the "Risk Factors" section and such other documents that we may file with the SEC or SEHK from time to time, including on Form 6-K. Other unknown or unpredictable factors also could have material adverse effects on our future results, performance or achievements. In light of these risks, uncertainties, assumptions and factors, the forward-looking events discussed in this document may not occur. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date stated or, if no date is stated, as of the date of this document.