SEMINAR
Izhevsk
26-04-2023
ptelectronics.ru/
brands

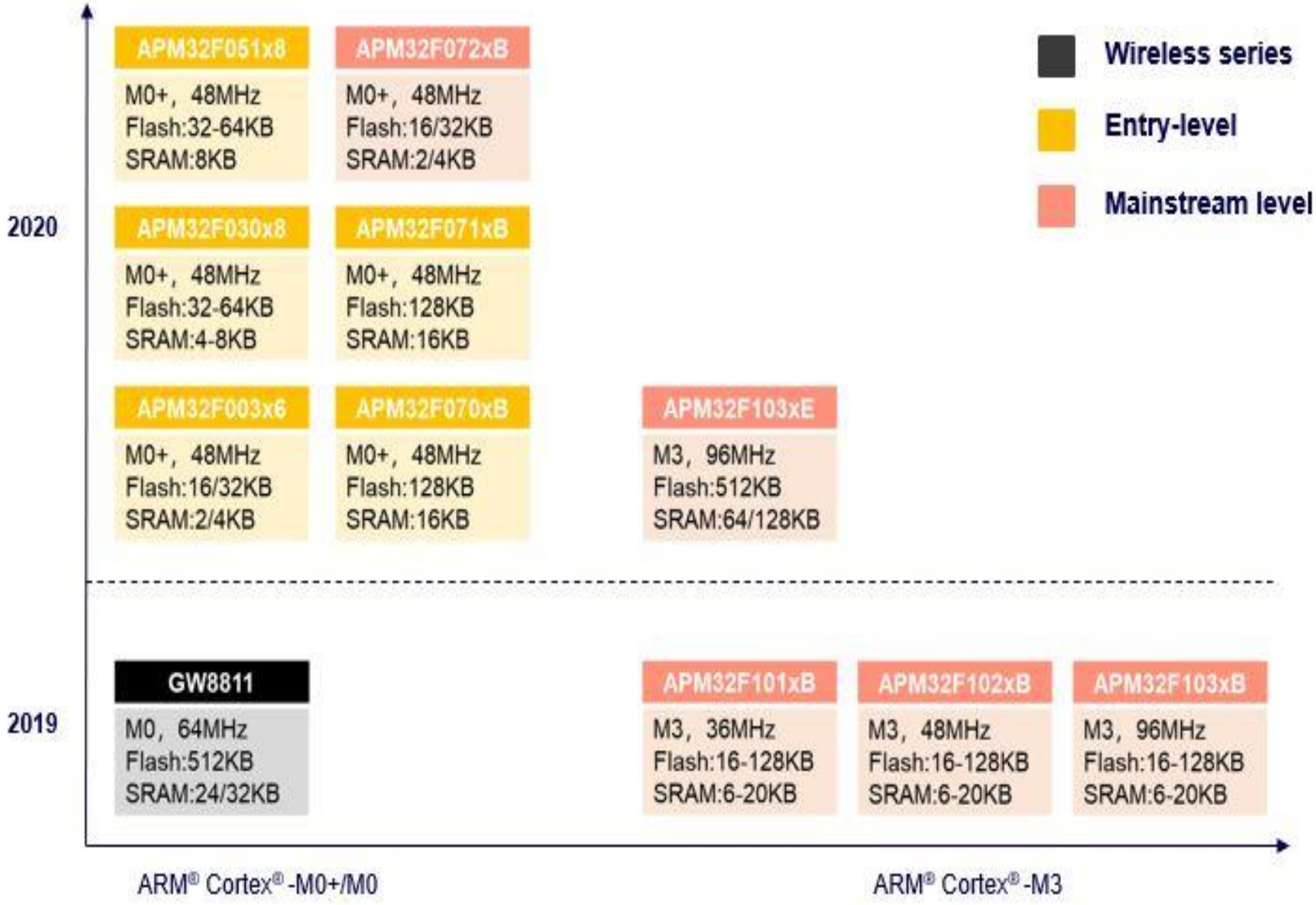
МП
Марк **Поташников**
Бренд-менеджер

Обзор полупроводниковой продукции китайских производителей

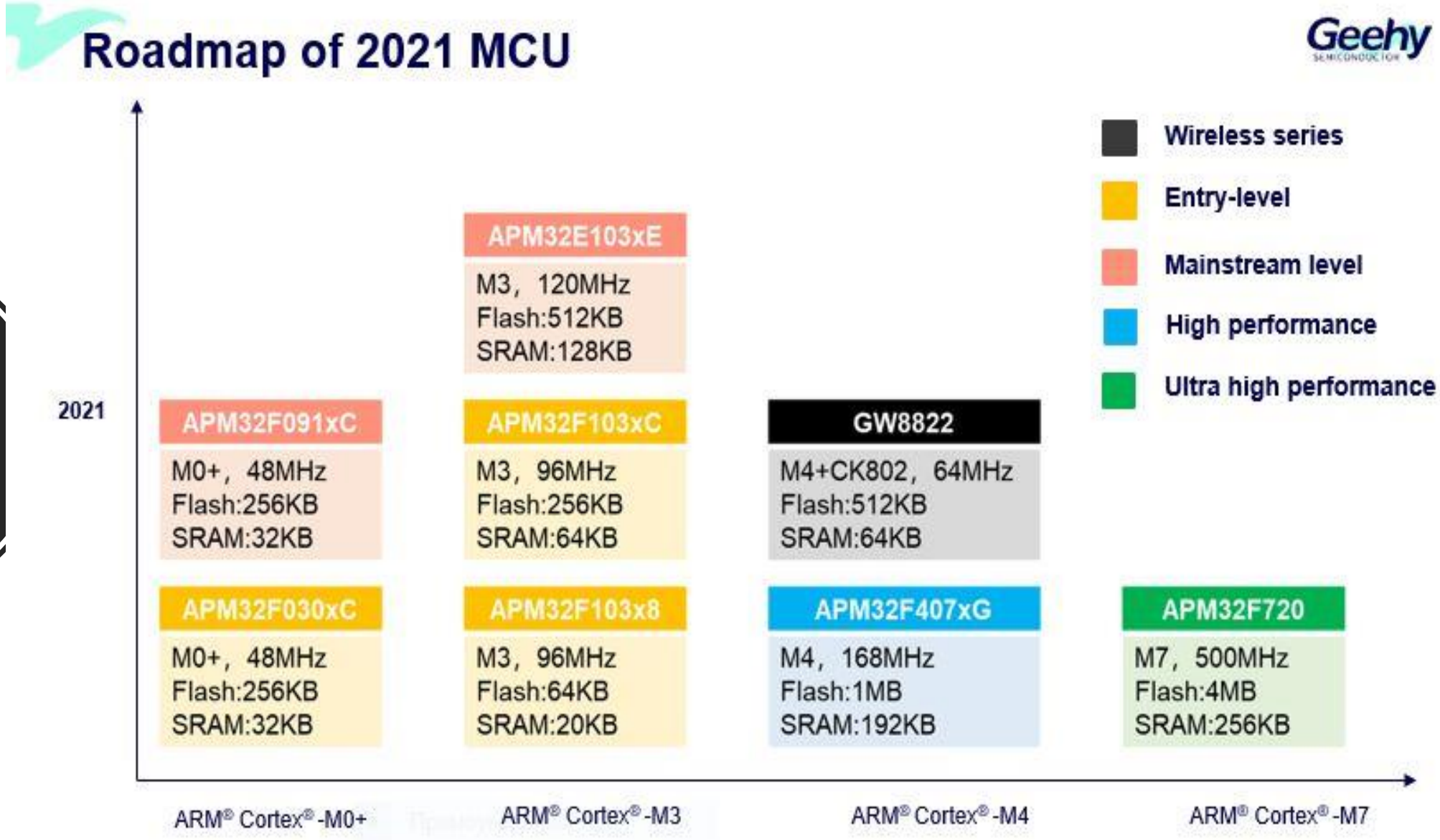
Компания PT Electronics - ведущий дистрибутор электронных компонентов в России, - представляет обзор полупроводниковых продуктов китайских производителей. Широкая номенклатура, низкие цены, подбор аналогов и техническая поддержка, отработанная логистика - все эти факторы сделали китайские полупроводники от PT Electronics всё более востребованными на российском рынке.

Geehy MCU M0, M3, BLE SoC
M0: F003/03x/05x/07x/F09x
M3: F/E101..103 – 96/120MHz

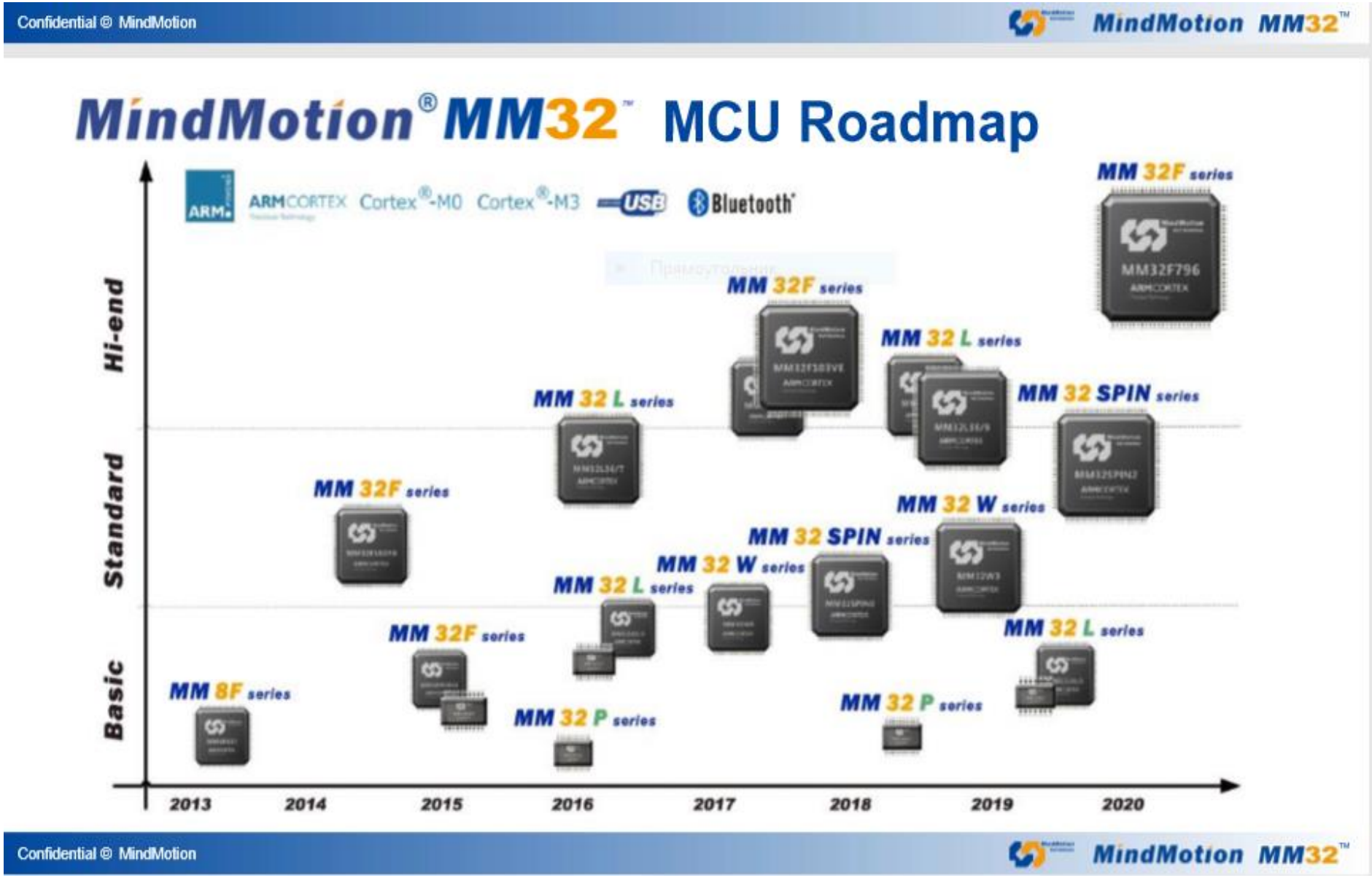
Roadmap of 2019-2020 MCU



Geehy MCU M0, M3, M4, M7, BLE SoC
F407IGT: 168MHz, 1Mb/192k, LQFP176



ARM® Cortex™ M0, M3, M4 MCU
32F5280: 120MHz, 2.25Mb/192k, 2F-CAN, EtherMAC, Fast 12b ADC, LQFP144, +105C



XHSC 小华半导体 XIAOHUA SEMICONDUCTOR

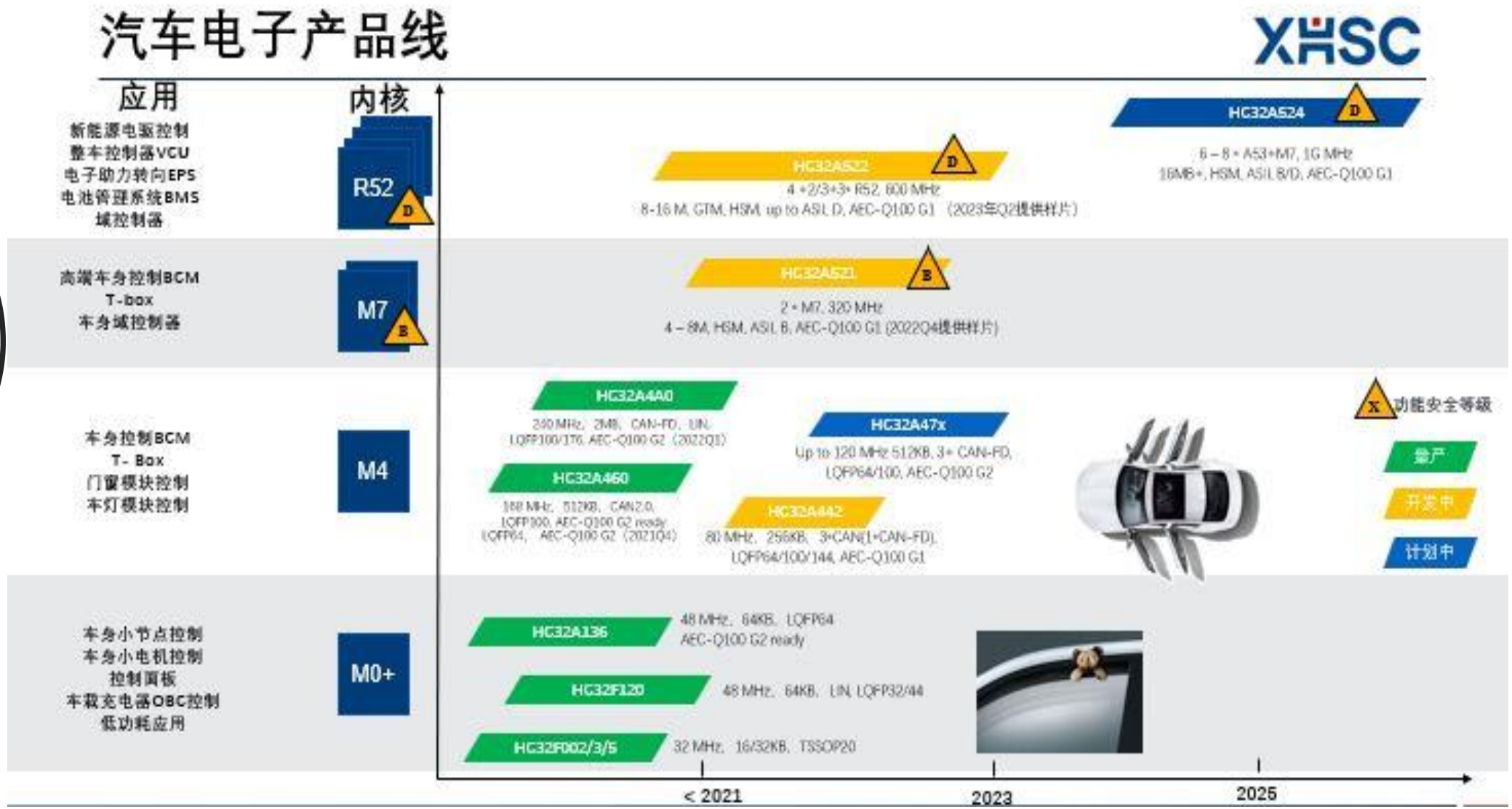
ARM® Cortex™ M0, M3, M4 MCU
HC32F4A0: AEC-Q101

HC32F4A0: MCU+FPU, 240MHz, 300DMIPS, 2MB Flash, 516KB SRAM, 2USBs (HS/FS OTG), Ethernet MAC, 2CANs (FD/2.0B), 2SDIOs, DVP, EXMC, 32 Timers, 16HRPWMs, 3ADCs, 4DACs , 4PGAs, 4 CMPs, 10UARTs, QSPI, AES MAU, LQFP176



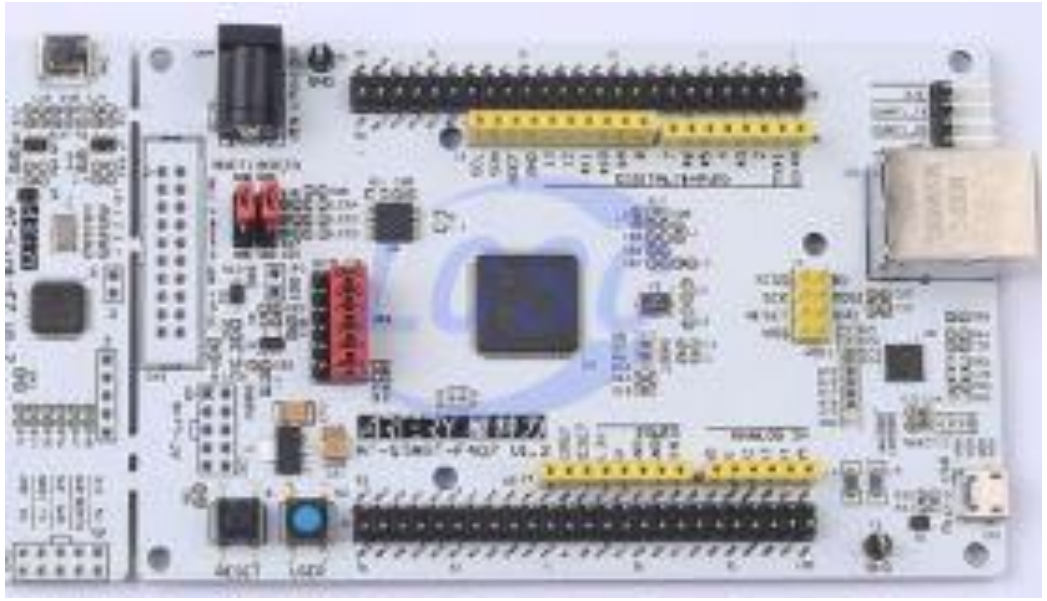
XHSC 小华半导体 XIAOHUA SEMICONDUCTOR

ARM® Cortex™
M0, M4, M7
MCU



Development Tools and Kits ARM-Cortex









CLM320VC5402PGE100

Independent intellectual property rights Domestic ultra-low power digital signal processing DSP



TMS320
80C196
8051F





I2C E2PROM 1MHz
SPI NOR Flash 104MHz
SPI NAND 104NHz
DDR3 1066MHz

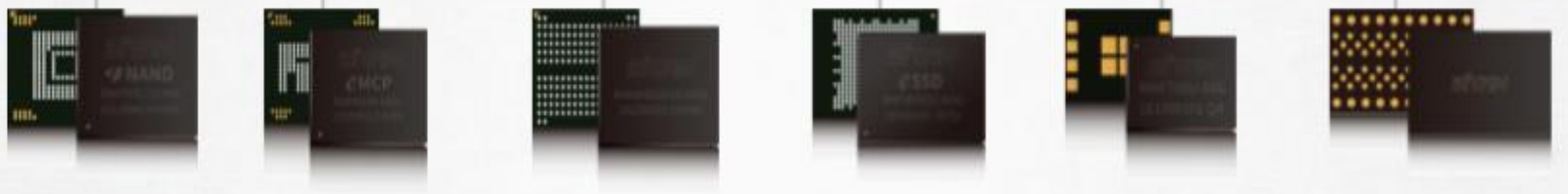
Memory	EEPROM	NOR Flash	Nand Flash（SLC SPI, SLC PPI, SD Nand, eMMC）
Key Features:	1.65V-5.5V	1.8V, 2.5V, 3.0V and wide voltage ranges;	1.8V and 3.0V;
Density:	2Kb-2Mb	2Mb-128Mb	1Gb-64Gb
Cycling Endurance:	3kk	100k	>50k
Applications:	Industrial、car、Phone camera module、etc.	Telecom、consumer、computing、etc.	PON、IOT、Cat.4、IPC、etc.

Memory	DDR3(L)
Key Features:	DDR3(L) 1600/1866/2133, x16/x8, 96ball FBGA(x16)/78-ball FBGA(x8)
Density:	1Gb/2Gb/4Gb
Applications:	PON, WIFI-6, IPC, Medical, Industrial, etc

Embedded
Memory
SPI NAND
LP DDR
SSD

Overview Of BIWIN Embedded Products

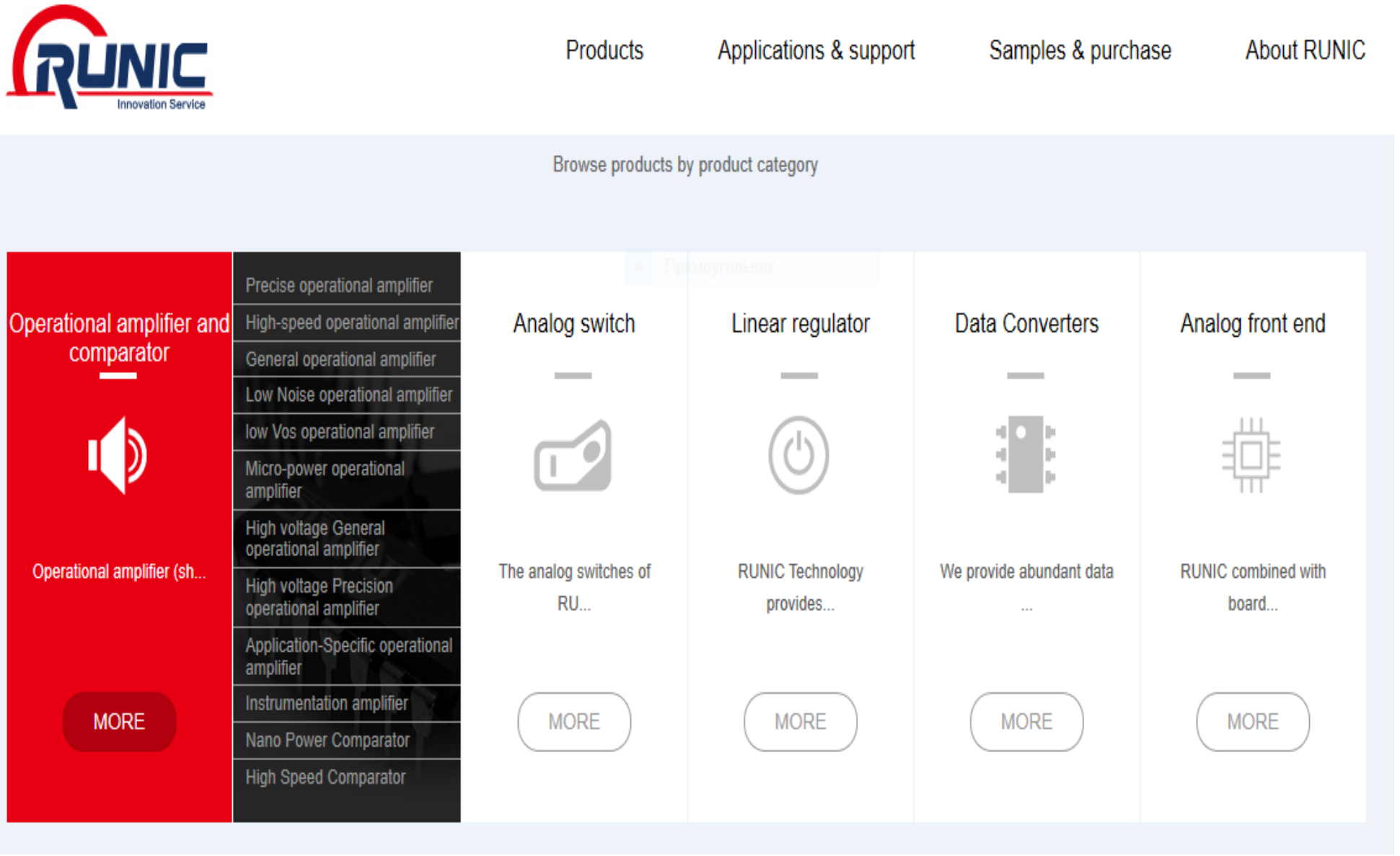
R/D、Qualification、
Assembly、
Testing、SMT、Wafer PKG



eMMC	eMCP	LPDDR	BGA SSD	SPI NAND	cNAND
Smart phone、Tablet、GPS、Smart TV、OTT	Digital learning machine、Video game player, Smart phone	Mobile phone、Tablet、GPS、Smart TV	Ultrabook、2-in-1 Laptop、tablet、Small form factor PC、Smart TV	OTT、Optical modem、TV set-top box	USB drive、Solid state drive

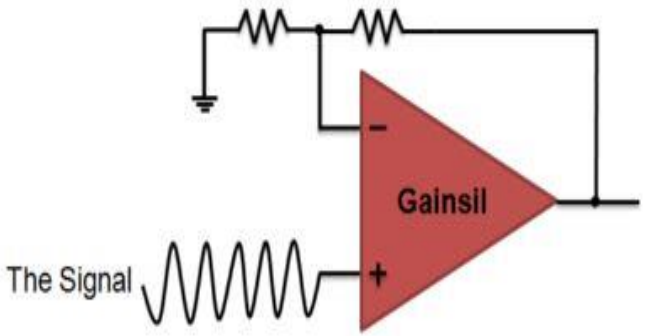


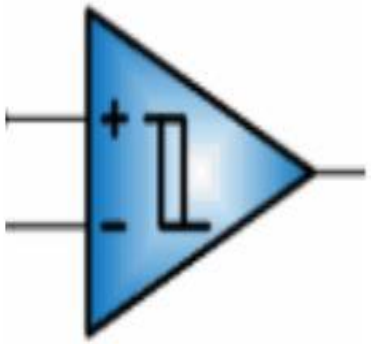
Advanced Analog IC:
- OPA
- LDO
- Analog Switch
- Tiny Logic



GAINSIL
聚洵

OpAms
Comparator





Op Amps

This series of products are widely used in: communication network, consumer electronics, multimedia, industrial automatic control, instrumentation, LIQUID crystal display, automotive electronics, wearable devices and Internet of Things and many other fields.

High Speed Opamps Low Voltage Low Noise Op Amps

Low Voltage Low Power Op Amps High Voltage General Op Amps

Low Voltage Nano Power Op Amps Zero Drift Op Amps

Micro Power Op Amps High Precision General Op Amps

Micro Power General Op Amps

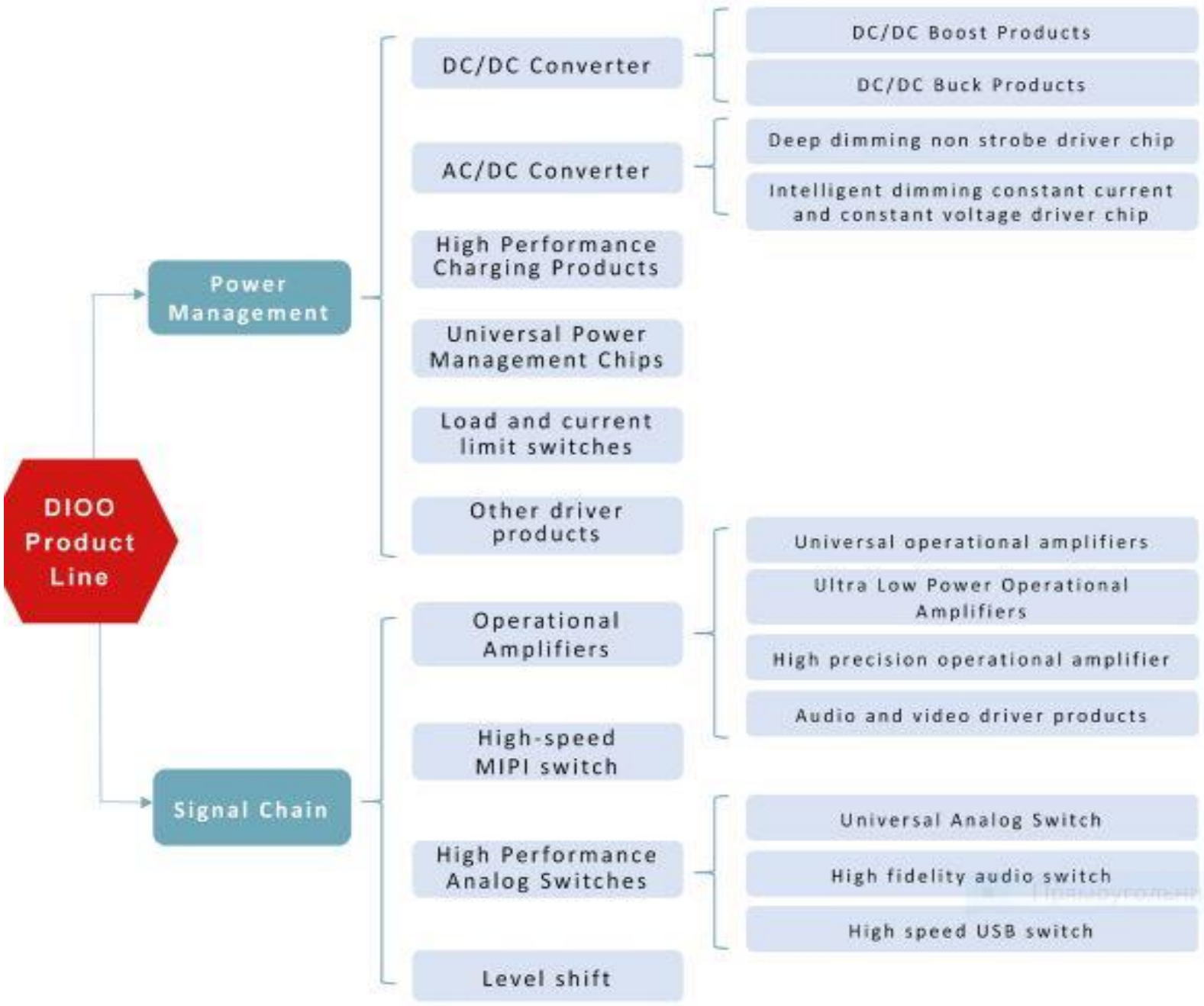
Comparator

Gainsil offers a broad portfolio of general-purpose, high-speed, and low-power comparators. This new comparator portfolio expands the range of applications Gainisil offers and enables us to offer our customers a more complete signal chain solution.

High Voltage General Comparator Low Voltage High Speed Comparator

Low Voltage Nano Power Comparator

Switching
Buck/Boost DC-DC,
OPA, HS USB Switch,
Analog Switch



COREBAI
芯佰微电子

Fast ADC/DAC,
Digital Isolator,
Ethernet
PHY10/100
Voltage Reset, OPA

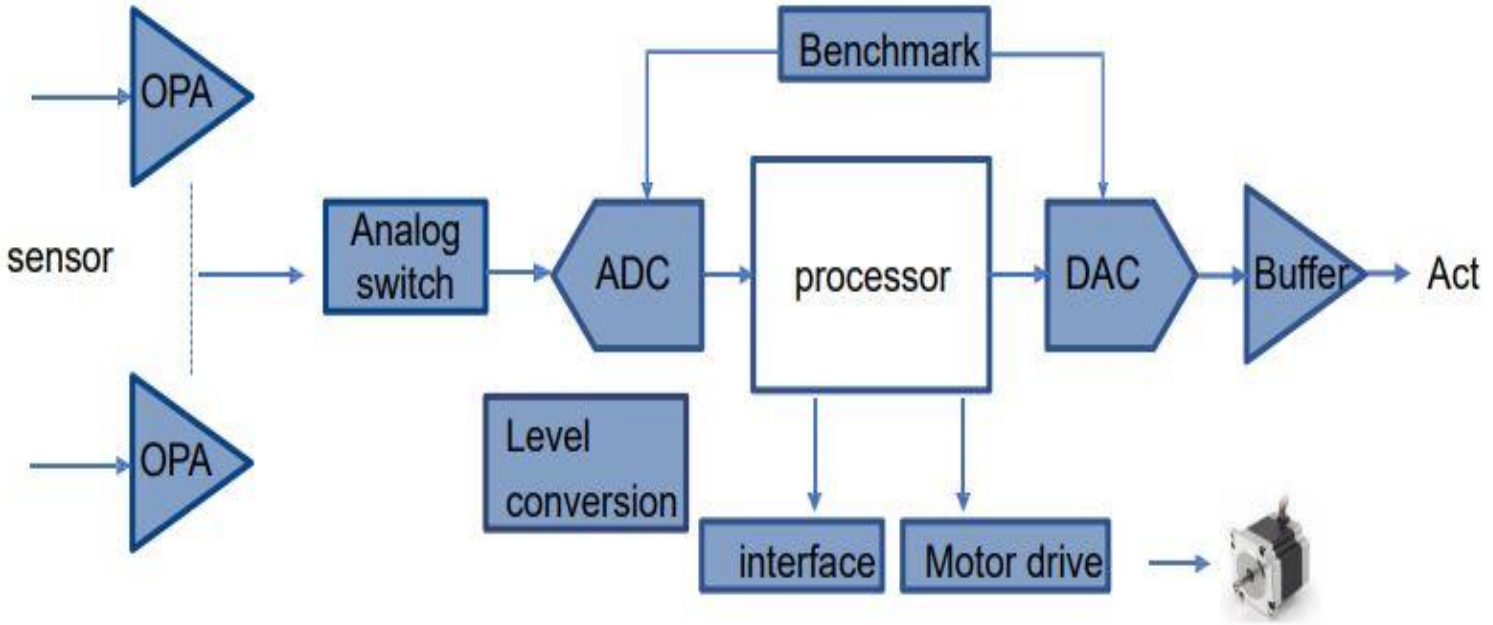
Part Number	Resolution (bits)	Sample Rate (MSPS)	Channels	Signal-To-Noise Ratio(SNR) (dBFS)	Spurious-Free Dynamic Range(SFDR) (dB)	Power Consumption (mW)	Temperature Range (° C)	Package
CBM08AD1500QP	8	1500	2	44.5	54	500	-40 to 85	TQFP-128
CBM94AD34-500	12	500	1	63	72	900	-40 to 85	QFN-56
CBM41AD49QF	14	250	1	70	65	270	-40 to 85	QFN-48
CBM92AD68-125	16	125	2	79	90	750	-40 to 85	QFN-64
CBM92AD68-105	16	105	2	79	92	570	-40 to 85	QFN-64
CBM92AD68-80	16	80	2	79.5	92	430	-40 to 85	QFN-64
CBM94AD67-250	16	250	1	75	85	1250	-40 to 85	QFN-72
CBM96AD56-125	16	125	4	79	93.2	706	-40 to 85	QFN-56

Part Number	Resolution (bits)	Update Rate (MSPS)	Channels	Spurious-Free Dynamic Range(SFDR) (dB)	Output Feature	Adjacent Channel Leakage Ratio (ACLR) (dB)	Noise Spectral Density (dB/hz)	Power Consumption (mW)	Temperature Range (° C)	Package
CBM97D36BG	14	1200	1	79	Programmable output current	82	-164	390	-40 to 85	PBGA-160
CBM97D39BG	14	2500	1	72	Programmable output current	80	-165	1050	-40 to 85	PBGA-160
CBM97D39AG	14	2500	1	72	Programmable output current	80	-165	1050	-40 to 85	PBGA-160
CBM97D79TQ	16	1000	2	82	Programmable output current	81	-159	1100	-40 to 85	TQFP-100

Part Number	Data rate(Max) (Mbps)	Forward/reverse channels	Integrated isolated power	Isolation rating (V rms)	Propagation delay (Typ) (ns)	VCC (Min) (V)	VCC (Max) (V)	Default output	Operating temperature range (℃)	Package
CBMuD1402LAS16	90	2/2	NO	3000	10	2.5	5.5	L	-40 to +105	WIDE SOP-16
CBMuD1402HAS16	90	2/2	NO	3000	10	2.5	5.5	H	-40 to +105	WIDE SOP-16
CBMuD1401LAS16	90	3/1	NO	3000	10	2.5	5.5	L	-40 to +105	WIDE SOP-16
CBMuD1401HAS16	90	3/1	NO	3000	10	2.5	5.5	H	-40 to +105	WIDE SOP-16
CBMuD1400LAS16	90	4/0	NO	3000	10	2.5	5.5	L	-40 to +105	WIDE SOP-16
CBMuD1400HAS16	90	4/0	NO	3000	10	2.5	5.5	H	-40 to +105	WIDE SOP-16
CBMuD1201HAS8	90	1/1	NO	3000	10	2.5	5.5	H	-40 to +105	SOP-8
CBMuD1201LAS8	90	1/1	NO	3000	10	2.5	5.5	L	-40 to +105	SOP-8
CBMuD1200HAS8	90	2/0	NO	3000	10	2.5	5.5	H	-40 to +105	SOP-8
CBMuD1200LAS8	90	2/0	NO	3000	10	2.5	5.5	L	-40 to +105	SOP-8

瑞盟科技 RUIMENG TECHNOLOGY

ADC-DAC
Interface IC
Motor Driver IC



AMP

High Speed AMP

High Precision AMPLow

Noise AMP

Low Supply Current AMP

Data converter

General ADC

High Speed ADC

High Precision

ADCGeneral DAC

High Speed DAC

Interface

485 interface

HBUS interface

LVDS

Audio Interface

MBUS

Motor Driver

Stepper Motor Driver

DC Motor Driver

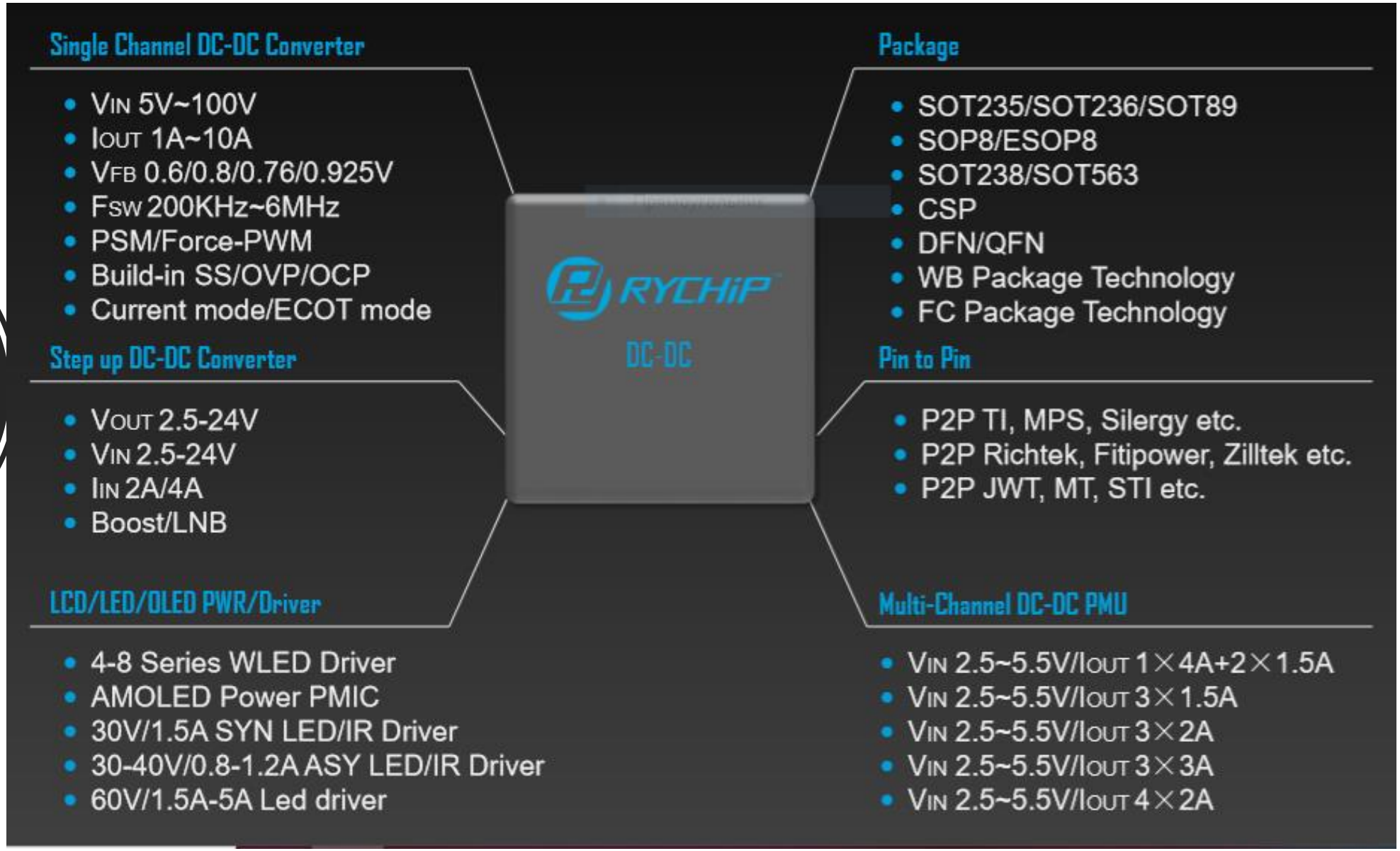
BLDC Motor Driver

Other

TDC measurement

Analog front end

DC-DC Buck, Boost
LDO, Multi-CH PMIC
Motor Driver IC
Protection IC
LED Driver IC
RF PAM, PoE



500-1200V SJ MOS
LV-MV Trench MOS
LV-MV SGT MOS
SIC SBD
LDO, Interface

Circuit Protection:

- ESD & EOS
- PTC
- PTVS
- FUSE
- TSS
- SCF

Power Semiconductors:

- SJ MOSFET
- MV/LV MOSFET
- Transistor
- Diodes

Mixed Signal IC:

- OCP
- OVP
- OTP
- Type C Protection
- LDO
- E-Fuse
- PMIC
- Transceiver



WAYON

LV-MV
Trench/SGT
MOS
HV SJ MOSFET

Power Semiconductor

WAYON
www.way-on.com

MV/LV MOSFET

Features:

- 12V-250V VBR(DSS) N&P Channel
- Small Signal & Power MOSFET full range Power categories
- RDS(ON) as low as 1mΩ, current >300A
- Trench & SGT advanced technology Platform

Advantage:

- Auto Level MOSFET, Full series AEC-Q101 Certified
- ★ Cellphone lithum battery Protection CSP MOS
- ★ TOLL, Clip advanced SMD packages

SJ MOSFET

Features:

- 500V-1200V Super Junction MOSFET
- RDS(ON) 0.023Ω-7Ω
- Deep Trench & Multi EPI Super Junction MOSFET Technology

Advantage:

- ★ 800V, 900V Series
- ★ Small Size SOT223, PDFN8*8
- ★ C4 Family Super Junction MOSFET

DFN1006 SOT723 SOP8 PDFN5*6 TOLL CSP

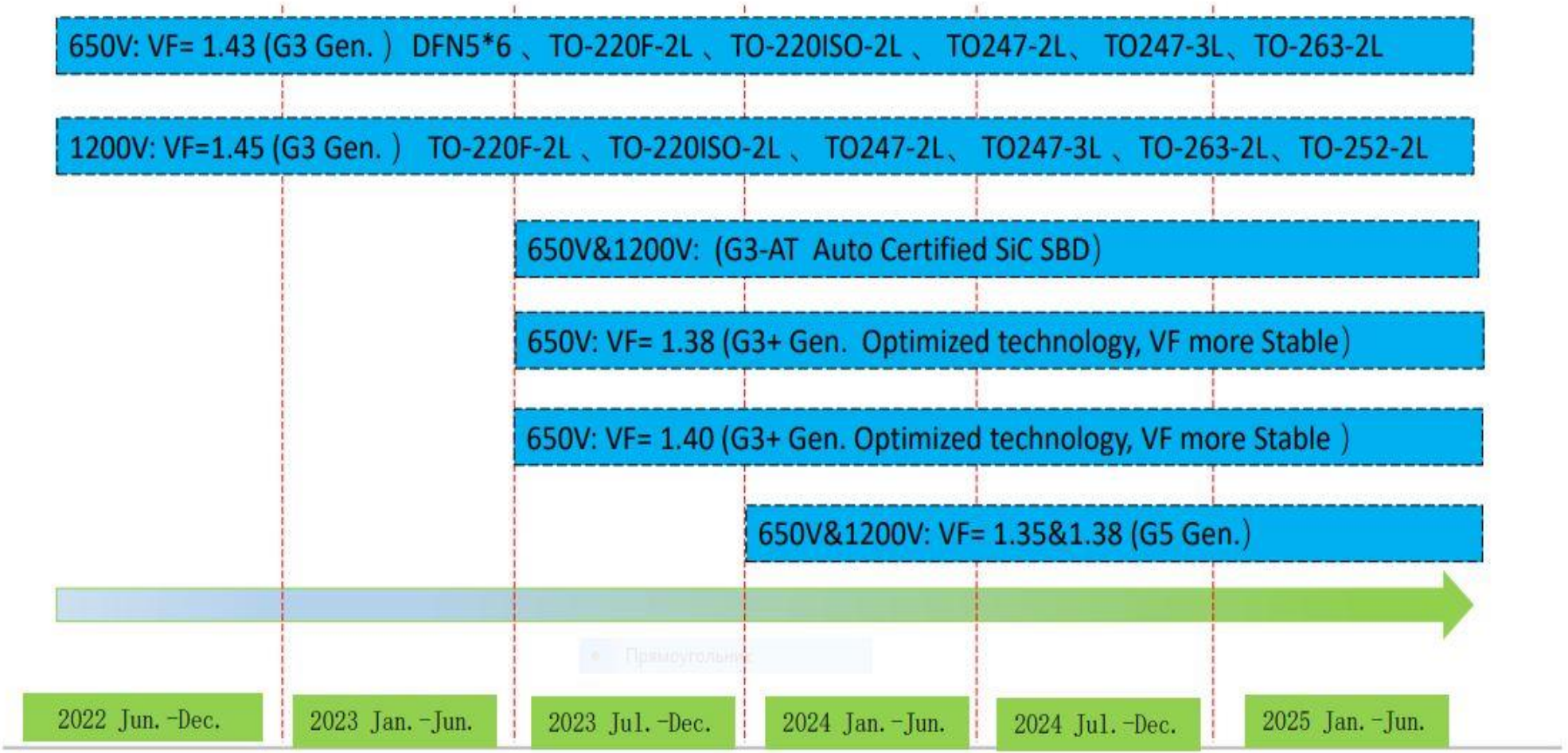


SOT223 TO252 PDFN8*8 TO220F-SL TO220-ISO WMG



SiC SBD

SiC SBD Road Map



JJM Power Discretes and Modules

Overall Product Portfolio

捷捷微电 JIEJIE MICROELECTRONICS

Thyristors



MOSFETs



Protection Devices



Diodes



Small Signals



Wide Band-gap Devices



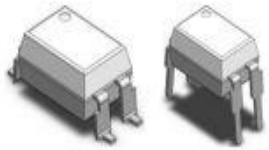
Surge Protective Devices



Modules & Assemblies Solid-state Relays



Opto-Couplers



AC/DC, OpAmp Comparators



JJM MOSFET

Complete MOSFET Technologies / Platform

捷捷微电 JIEJIE MICROELECTRONICS

	Series	Technology	V_{DS_Max} (V)	I_{D_Max} (A)
High-voltage VDMOS	JMP	Planar	400 ~ 1000	1~30
	JHFET®	Super-junction	600 ~ 800	1~30
Mid-voltage VDMOS	JMP	Planar	40 ~ 200	1~110
	JMT	Trench	-40; 20 ~ 100	1~160
	JSFET®; JPFET®	Advanced SGT	-100 ~ -40; 40 ~ 150	20 ~300
Low-voltage VDMOS	JSFET®	Advanced SGT	12 ~ 30	1~10
	JMT	Trench w/ ESD	-30 ~ -12; 30	20 ~300

DIP



SMD1



SMD2





TAIXIN
TAIXIN ELECTRONICS 台芯

Discrete IGBT
IGBT Modules



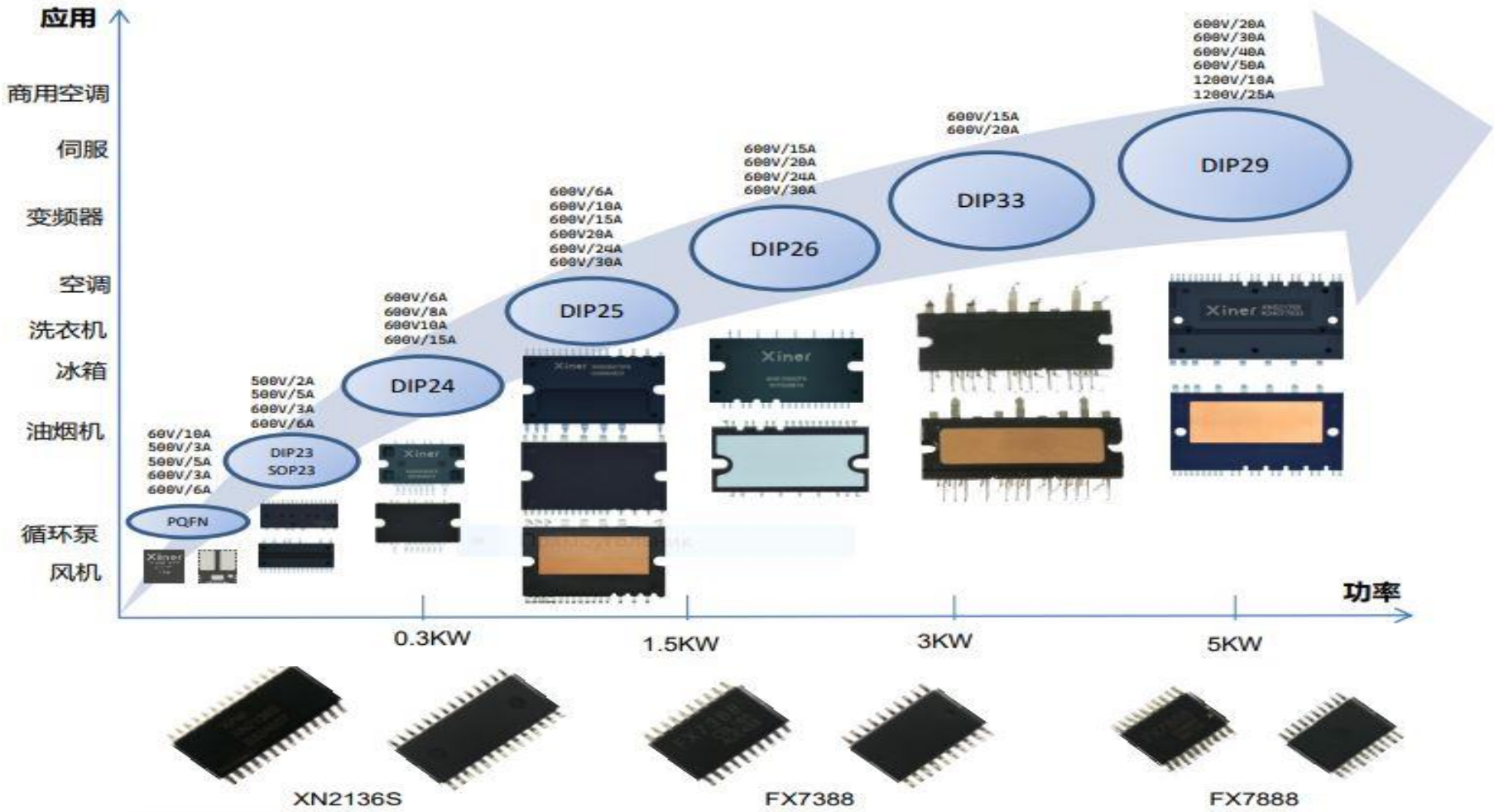
IGBT:
Current：15A-900A
Voltage：650V、1200V、1700V

Customized Model according to customer request

Under Development:
1. IGBTs for Electric Vehicles, Smart Grids and Rail Transit;
2.1000A+， 1700V/3300V
3.New double-sided heat dissipation and press-fit IGBT module series

Xiner

Discrete IGBT
IGBT Modules
PIM-IPM Modules
IGBT/MOS Driver IC



XN2136S

FX7388

FX7888

产 品 列 表

驱动方式	型号	耐压	输出电流	输入逻辑	功能	VSS/COM独立	封装
三相	XN2136S	600V	200/400mA	/HIN, /LIN	UV、EN、OCP、DT、STP、FO、CFO、NF	是	SOP28
	FX7388	600V	160/340mA	HIN, LIN	UV、VDD、DT、STP	是	TSSOP SOP
	FX7888	250V	320/620mA	HIN, LIN	UV、EN、DT、STP	否	TSSOP SOP
半桥	XN2101S	600V	290/620mA	HIN, LIN	UV、DT、STP、NF	否	SOP8
	XN2304S	600V	290/620mA	HIN, LIN	UV、DT、STP、NF	否	SOP8
低边	XN44272L	25V	1.5A/1.5A	IN	EN、UV	否	SOT23
	XN7524S	25V	5A/5A	INA, INB	EN、UV	否	SOP8

陆芯 Lu-Semi

Discrete IGBT
IGBT Modules
IGBT dies

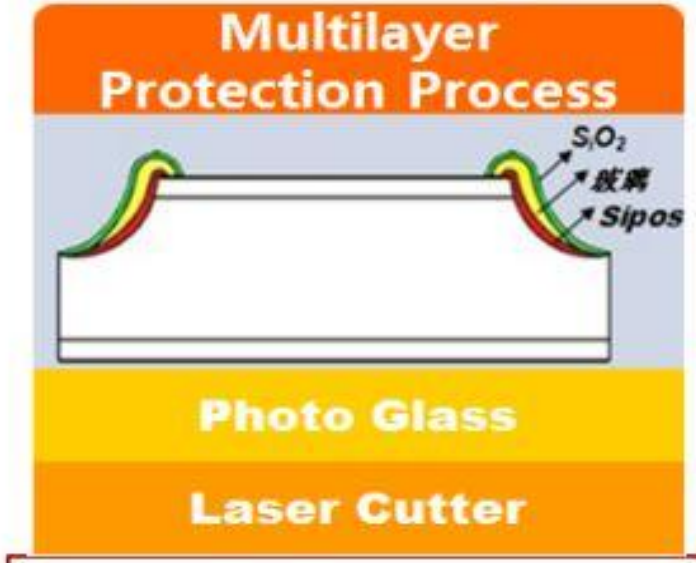
	Ic (A) @ 100℃	Product	V_{ces} (V)	$V_{ce(sat)}$ (V)	E_{on} (mJ) @25℃	E_{off} (mJ) @25℃	Package	Bare Die
400V Product	300	YGC300N40T1	400	1.3	--	--	Die	√
650V Product Family	12	YGW12N65T1A	650	1.6	0.9	0.1	TO247	√
	24	YGW24N65F1A	650	1.8	1.1	0.15	TO247	√
	50	YGW50N65F1A1	650	1.65	2.0	0.6	TO247	√
	50	YGW50N65F1A	650	1.8	1.9	1.1	TO247	√
	100	YGC100N65T1	650	1.7	--	--	Die	√
	200	YGC200N65T1	650	1.7	--	--	Die	√
1200V Product Family	15	YGW15N120F1	1200	1.9	--	0.28	TO247	√
	25	YGW25N120F1	1200	2.0	2.0	0.32	TO247	√
	40	YGW40N120F1A	1200	2.9	2.0	0.8	TO247	√
	40	YGW40N120T1B	1200	1.7	2.4	1.5	TO247	√
	100	YGC100N120F1	1200	2.0	--	--	Die	√
1350V Product	25	YGW25N135F1	1350	2.0	--	0.32	TO247	√

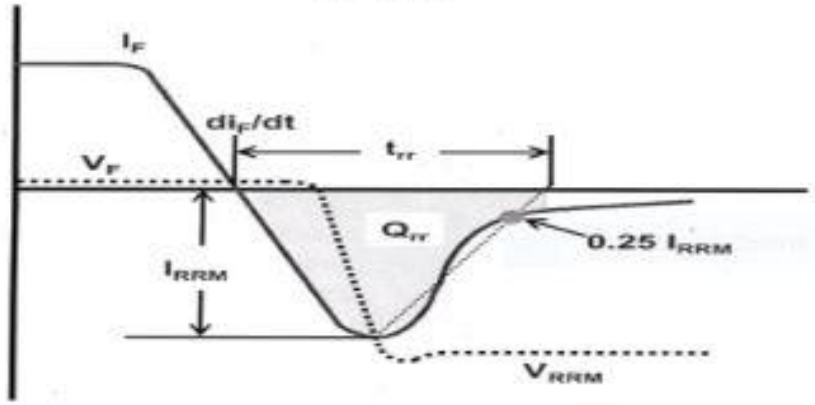
FRD Disctrete and Modules

Sheier Products-FRD



Technical Process & Performance Index are obviously better than other products in this industry





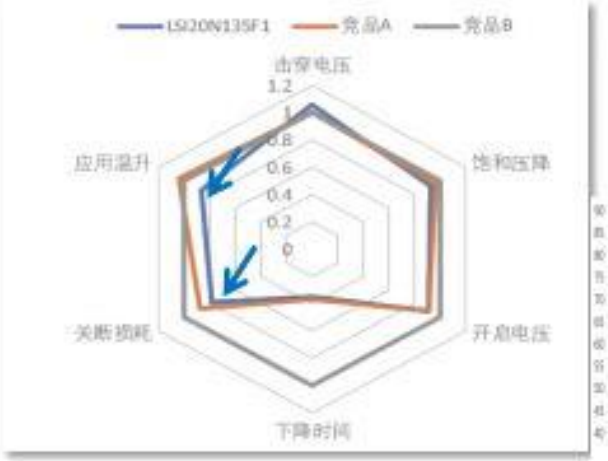
Ideal FRD has the following features :

- Low Reverse Recovery Current
- Short TRR
- Low Reverse Recovery Charge
- Soft Recovery Characteristics · No Ring Effect

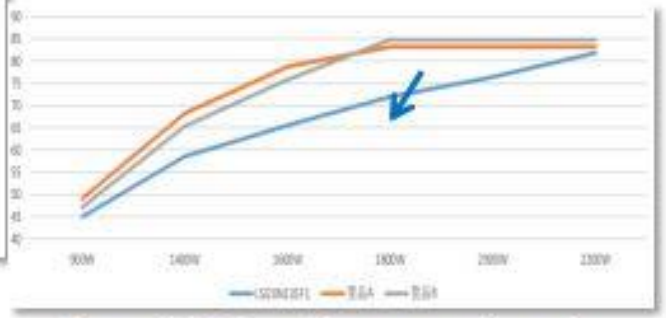
IGBT FS Trench

Sheier Products-IGBT

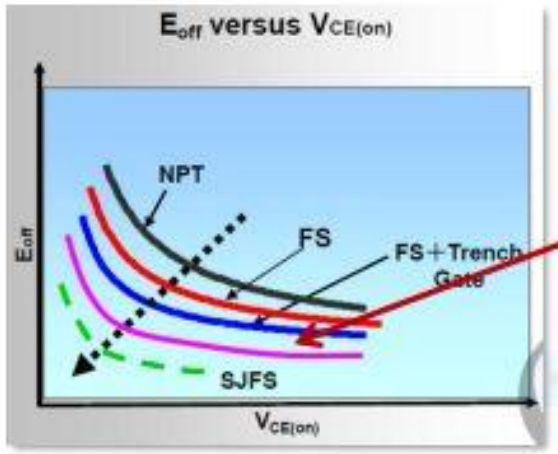


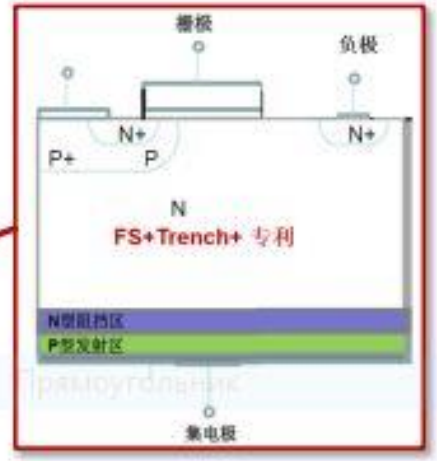


>Compared with competitive product, Share IGBT has respective advantage &disadvantage in Static and dynamic.
>The Temperature rise of Share IGBT is lower.



- Share IGBT reach to top point of temperature in 2200W
- Competitive product reach to protecting point in 1800W





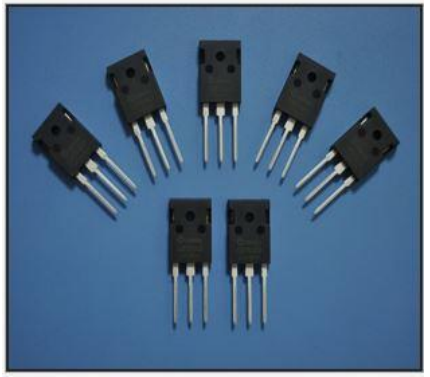
Roadmap



CENGOL

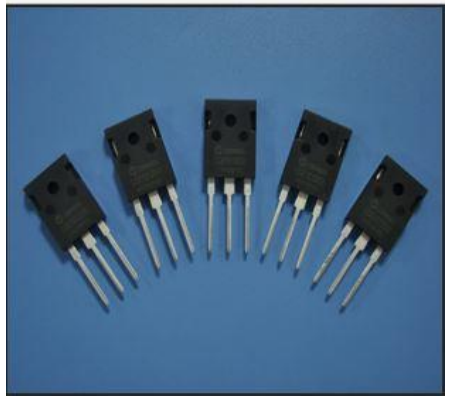
SIC SBD, MOSFET, Modules

SiC-SBD



Type	Reverse breakdown voltage (Vr)	Working current (If)	Forward voltage (Vf)	Package Type
CGC1S06005	600V	5A	1.5V	TO-220-2
CGC1S06010	600V	10A	1.5V	TO-220-2
CGE1S06020	600V	20A	1.5V	TO-247-3
CGC1S12010	1200V	10A	1.5V	TO-220-2
CGE1S12020	1200V	20A	1.5V	TO-247-3
CGE1S12030	1200V	30A	1.5V	TO-247-3
CGE1S17005	1700V	5A	1.5V	TO-247-2
CGE1S17010	1700V	10A	1.5V	TO-247-3
CGE1S33005	3300V	5A	1.5V	TO-247-2
other specifications is according to the customers requirement				

SiC-MOSFET



Type	Reverse breakdown voltage (Vr)	On resistance	Electric current (Id)	Package Type
CGE1M090065	900V	65mΩ	23A	TO-247-3
CGE1M120080	1200V	80mΩ	24A	TO-247-3
CGE1M120040	1200V	40mΩ	40A	TO-247-3
other specifications is according to the customers requirement				

SiC-Power Modu



Type	Reverse breakdown voltage (Vr)	Working current (If)	Forward voltage (Vf)	Package Type
CGT1K120150	1200V	150A	1.5V	T type
CGT1K120200	1200V	200A	1.5V	T type
CGT1K120300	1200V	300A	1.5V	T type
other specifications is according to the customers requirement				

Gate Driver IC

型号	Voffset	工作电压		逻辑	IO+/IO-	VCC UV+/UV-	VB UV+/UV-	使能	DT(ns)	直通防止	封装
		Min	Max								
EG2103	600V	10V	20V	HIN,LIN	0.3A/0.6A	8.7/8.0V	8.6/8.0V	无	560ns	有	SOP8
EG2104	600V	2.8V	20V	IN	2.0A/2.5A	无	无	有	100ns	无	SOP8
EG2104S	600V	10V	20V	IN	1.0A/1.5A	8.6/8.1V	7.8/7.6V	有	640ns	无	SOP8
EG2104M	600V	10V	20V	IN	0.3A/0.6A	8.6/8.1V	7.8/7.6V	有	620ns	无	SOP8
EG2106	600V	10V	20V	HIN,LIN	0.3A/0.6A	8.6/8.1V	8.6/8.0V	无	50ns	有	SOP8
EG2108	600V	10V	20V	HIN,LIN	0.3A/0.6A	8.7/8.0V	8.6/8.0V	无	470ns	有	SOP8
EG2113S	600V	2.8V	20V	HIN,LIN	2.0A/2.0A	无	无	有	100ns	有	SOP16(W)
EG2113D	600V	10V	20V	HIN,LIN	2.0A/2.0A	8.4/8.0	8.6/8.2	有	150ns	有	SOP16/SOP16(W)
EG2113	600V	10V	20V	HIN,LIN	2.0A/2.5A	8.7/8.1V	8.2/7.5V	有	100ns	有	SOP16(W)
EG2130	600V	2.8V	20V	IN	2.0A/2.5A	无	无	有	100ns	无	SOP8
EG2131	300V	10V	20V	HIN,LIN	1.0A/1.5A	9.4/8.7V	无	无	250ns	有	SOP8
EG2132	300V	8V	20V	HIN,LIN	1.0A/1.5A	7.1/6.8V	6.2/6.0V	无	250ns	有	SOP8
EG2133	300V	4.5V	20V	HIN,LIN	1.2A/1.4A	无	无	无	100ns	有	TSSOP20
EG2134	300V	4.5V	20V	HIN,LIN	1.2A/1.4A	无	无	无	100ns	有	TSSOP20/ QFN24
EG2126	600V	2.8V	20V	HIN,LIN	2.0A/2.0A	无	无	无	100ns	有	SOP28L
EG2136	600V	10V	20V	HIN,LIN	0.2A/0.35A	8.9/8.2V	无	有	290ns	有	SOP28L
EG2181	600V	3.5V	20V	HIN,LIN	2.0/2.0A	无	无	无	100ns	有	SOP8
EG2183	600V	3.5V	20V	HIN,LIN	2.0A/2.0A	无	无	无	100ns	有	SOP8
EG3112	600V	2.8V	20V	HIN,LIN	2.0A/2.5A	无	无	无	100ns	有	SOP8

Interface
Transceiver
RS485-422,
RS232, CAN, LIN




SIT1021T


SIT1042T/3


SIT1051T/3


SIT65HVD230DR


SIT3485EESA


SIT3088EESA


SIT3051ESA


SIT1050T


SIT1040T


SIT3490EESA


SIT3232EESE


SIT3491EESD

CAN Transceiver

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Self-Diagnostic Or Autobaud 自诊断	Bus Fault Protection Voltage 总线容错电压范围	Package 封装	Pin to pin 替换型号
SIT82C250T	4.5~5.5	1	Standby Hardware Wakeup	5(standby)	N	N	-8~18	SOP8	PCA82C250T
SIT82C251T	4.5~5.5	1	Standby Hardware Wakeup	5(standby)	N	N	-36~36	SOP8	PCA82C251T
SIT2551T	4.5~5.5	0.03~1	Standby Bus Wakeup	5(standby)	Y	N	-40~40	SOP8	MCP2551T
SIT1050QT	4.5~5.5	0.04~1	Silent	3500(silent)	Y	N	-40~40	SOP8	TJA1050T
SIT1040QT	4.5~5.5	0.04~1	Standby Bus Wakeup	5(standby)	Y	N	-40~40	SOP8	TJA1040T
SIT65HVD230DR	3.0~3.6	1	Silent	650(silent)	N	N	-16~16	SOP8	SN65HVD230DR
SIT65HVD231DR	3.0~3.6	1	Sleep, Hardware Wakeup	0.4(sleep)	N	N	-16~16	SOP8	SN65HVD231DR
SIT65HVD232DR	3.0~3.6	1	N	-	N	N	-16~16	SOP8	SN65HVD232DR
SIT65HVD233DR	3.0~3.6	1	Silent	650(silent)	N	Self-Diagnostic	-36~36	SOP8	SN65HVD233DR
SIT65HVD234DR	3.0~3.6	1	Silent, Sleep, (Hardware Wakeup)	370(silent) 0.05(sleep)	N	N	-36~36	SOP8	SN65HVD234DR
SIT65HVD235DR	3.0~3.6	1	Silent	360(silent)	N	Autobaud	-36~36	SOP8	SN65HVD235DR
SIT3051ESA	3.0~3.6	1	Standby(Bus Wakeup), Shutdown(Hardwake up)	8(standby) 1(shutdown)	N	N	-36~36	SOP8	MAX3051ESA

CAN FD Transceiver

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Self-Diagnostic Or Autobaud 自诊断	Bus Fault Protection Voltage 总线容错电压范围	Package 封装	Pin to pin 替换型号
SIT1044QT	4.75~5.25	0.015~5	Standby Bus Wake up	15	Y	N	-40~40	SOP8	TJA1044T
SIT1044QT/3	4.75~5.25 IO兼容3. 3V	0.015~5	Standby Bus Wake up	5	Y	N	-40~40	SOP8	TJA1044T/3
SIT1044QTK/3	4.75~5.25 IO兼容3. 3V	0.015~5	Standby Bus Wake up	5	Y	N	-40~40	DFN3*3-8(HVSON8)	TJA1044TK/3
SIT1042AQT	4.5~5.5	0.015~5	Standby Bus Wake up	12	Y	N	-58~58	SOP8	TJA1042T
SIT1042AQT/3	4.5~5.5 IO兼容3. 3V	0.015~5	Standby Bus Wake up	0.5	Y	N	-58~58	SOP8	TJA1042T/3
SIT1042AQTK/3	4.5~5.5 IO兼容3. 3V	0.015~5	Standby Bus Wake up	0.5	Y	N	-58~58	DFN3*3-8(HVSON8)	TJA1042TK/3
SIT1051AQT	4.5~5.5	0.015~5	silent	1000	Y	N	-58~58	SOP8	TJA1051T
SIT1051AQT/E	4.5~5.5	0.015~5	Low Current Off Hardware Wakeup	0.5	Y	N	-58~58	SOP8	TJA1051T/E
SIT1051AQT/3	4.5~5.5 IO兼容3. 3V	0.015~5	silent	1000	Y	N	-58~58	SOP8	TJA1051T/3
SIT1051AQTK/3	4.5~5.5 IO兼容3. 3V	0.015~5	silent	1000	Y	N	-58~58	DFN3*3-8(HVSON8)	TJA1051TK/3
SIT1043QT	VBAT=4.5~40 VCC=4.5~5.5 IO兼容3.3V	0.04~5	Standby Sleep	1	Y	Y	-58~58	SOP14	TJA1043T
SIT1043QTK	VBAT=4.5~40 VCC=4.5~5.5 IO兼容3.3V	0.04~5	Standby Sleep	1	Y	Y	-58~58	DFN14(HVSON14)	TJA1043TK
SIT1057QT	4.75~5.25	0.015~5	silent	1200	Y	N	-40~40	SOP8	TJA1057T
SIT1057QT/3	4.75~5.25 IO兼容3. 3V	0.015~5	silent	1200	Y	N	-40~40	SOP8	TJA1057T/3
SIT1057QTK/3	4.75~5.25 IO兼容3. 3V	0.015~5	silent	1200	Y	N	-40~40	DFN3*3-8(HVSON8)	TJA1057TK/3

LIN Transceiver

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Package 封装	Pin to pin 替换型号
SIT1021QT	5.5~27	0.02	Standby,Sleep	5(Sleep)	Y	SOP8	TJA1021T
SIT1021QTK	5.5~27	0.02	Standby,Sleep	5(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1021TK
SIT1022QT	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	SOP14	TJA1022T
SIT1022QTK	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	DFN14（HVSON14）	TJA1022TK
SIT1024QHG	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	QFN24	TJA1024HG
SIT1027QT	5~27	0.02	Standby,Sleep	4(Sleep)	N	SOP8	TJA1027T
SIT1027QTK	5~27	0.02	Standby,Sleep	4(Sleep)	N	DFN3*3-8(HVSON8)	TJA1027TK
SIT1028QT	5.5~28	0.02	Standby,Sleep	8(Sleep)	Y	SOP8	TJA1028T
SIT1028QTK	5.5~28	0.02	Standby,Sleep	8(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1028TK
SIT1029QT	5~18	0.02	Standby,Sleep	7(Sleep)	Y	SOP8	TJA1029T
SIT1029QTK	5~18	0.02	Standby,Sleep	7(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1029TK

2Pai Semi

Digital Isolator
Interface Isolator
Isolated Driver

Digital Isolators

Basic Isolators
I²C Isolators
RS-485 Isolators
CAN Isolator
Isolated Driver
Isolated Power



Isolation Voltage: 5KVrms
Max Speed: 600Mbps (4 times of the US products)
Propagation Delay: 5.5ns (US products are around 11ns)
CMTI: 150KV/μs (US products are 50-70KV/μs)
Static Power Consumption: 0.4mA (US products are 1.2mA)
HBM ESD: $\pm$8KV (US products are 4KV)

Key Parameter Comparison					
Parameter	Capacitor isolator			Electro magnetic isolator	Optical isolator
	2Pai Semi	T-company	S-company	A-company	A-company etc.
Temperature	-40°C~125°C Temp shift low	-40°C~125°C Temp shift low	-40°C~125°C Temp shift low	-40°C~125°C Temp shift low	-30°C~85°C Temp shift high
Maximal isolation voltage	5000Vrms	5700Vrms	5000Vrms	5000Vrms	5000Vrms
Highest speed	600Mbps	150Mbps	150Mbps	150Mbps	50Mbps
Power/channel	0.40mA	1.7mA	1.6mA	1.1mA	10mA
Propagation delay	5.5ns	11ns	10ns	15ns	*us

2Pai Semi

Digital Isolator
Interface Isolator
Isolated Driver

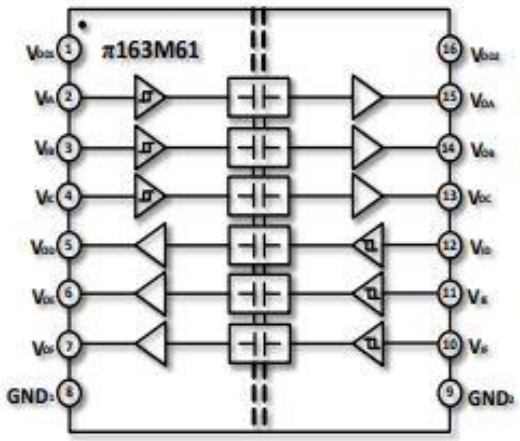
Standard Digital Isolation	Optocoupler replacement	Interface	Drive	Sampling	Power Drive
1-6 channels standard digital isolation	Digital optocoupler	I²C Isolation	Single-channel isolated driver	Isolation amplifier	Ideal diode
Ultra-high withstand voltage standard digital isolation	High-speed optocoupler PTP products	485 Isolation	Dual-channel isolated driver	ADC Isolation	High and low side drivers
Digital isolation with isolated power supply	Optical MOS	CAN Isolation	Non-isolated half-bridge driver	Voltage reference	Integrated GaN power module
	Optocoupler driven	CAN Non-isolated	Intelligent isolated drives		
		With isolated power supply 485/CAN Isolate	Intelligent isolated drive with functional safety		

Mass production stage Sample stage R&D phase Conceptual phase

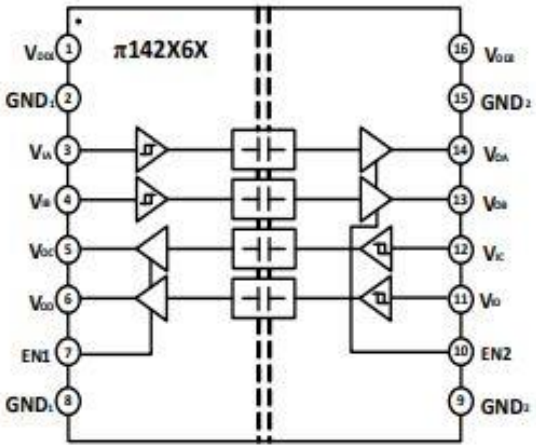
2Pai Semi

Digital Isolator
Interface
Isolator
Isolated Driver

Standard Digital Isolator



Channel Amount:6



Channel Amount:4

The main parameters	category
Total channel Amount	1,2,3,4,6
Reverse Channel Amount	Reverse Channel Amount: 1~3
Data Rate	A(600Mbps);E(200Mbps);M(10Mbps);U(150Kbps)
Isolation Voltages	1.5KV(1); 3KV(3); 5KVrms(6)
Fail-safe Output State	Logic High(1);Logic Low(0)

Chips create new value

π (1) (2) (0) (A) (3) (0) (S)

Series Number: 1,2,3···

Total channel Amount : 1,2,3,4,5,6

Reverse Channel Amount: 0,1,2,3

Data Rate:
A=600Mbps
E=200Mbps
M=10Mbps
U=150kbps

Isolation Voltages:
1: 1.5kVrms AC
3: 3kVrms AC
6: 5kVrms AC

Fail-safe Output State:
0
1

Optional:
S:SSOP
Q: AEC-Q100

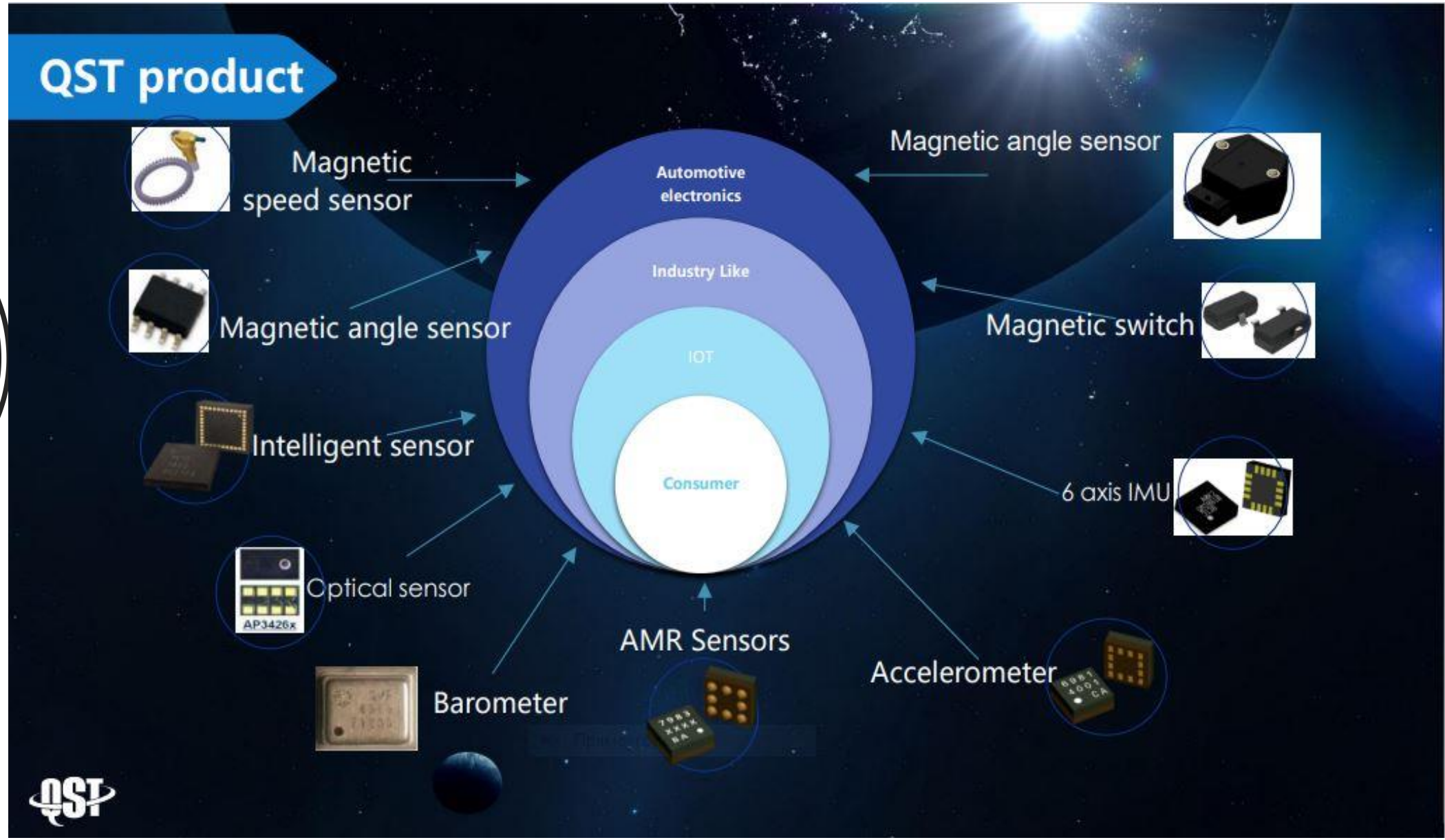
LEIDITECH
Protection
Solutions



Optocoupler
Optodriver
IR 850/940 nm LED
Visible LED
Si Photo Diode/Tr dies

Photocoupler type / Package type and size	Photo Transistor	Darlington	Triac Driver	High-speed	Solid State Relay	IGBT	Schmitt Trigger
DIP4 (6.4x4.6x3.48)	ORPC-817 ORPC-814 ORPC-816 ORPC-851	ORPC-815 ORPC-852	OR-T302X (X=1/2/3) OR-T304X (X=1/2/3) OR-T305X (X=1/2/3) OR-T306X (X=1/2/3) OR-T308X (X=1/2/3)		OR-406A OR-425A OR-440A OR-460A		
DIP6 (7.14x6.5x3.5)	OR-4N25 OR-4N26 OR-4N27 OR-4N28 OR-4N35 OR-4N36 OR-4N37 OR-4N38 OR-H11AA1 OR-H11AA2 OR-H11AA3 OR-H11AA4	OR-4N29 OR-4N30 OR-4N31 OR-4N32 OR-4N33	OR-MOC301X(X=0/1/2) OR-MOC302X(X=1/2/3) OR-MOC305X(X=1/2/3) OR-MOC303X(X=1/2/3) OR-MOC304X(X=1/2/3) OR-MOC306X(X=1/2/3) OR-MOC308X(X=1/2/3)		OR-606A OR-625A OR-640A OR-660A		H11L1
DIP6/7/8 (9.68x6.5x3.5)	ORPC-824 ORPC-827	ORPC-825	OR-0223 OR-1223 OR-2223 OR-3223	OR-6N135 OR-6N136 OR-6N137 OR-6N138 OR-6N139 OR-4502 OR-4503 OR-4504 OR-2200 OR-2201 OR-2202 OR-2530 OR-2531 OR-2601 OR-2611 OR-2630 OR-2631	OR-840A OR-860A OR-5211	OR-3120 OR-3150	
SOP4/5/6 (4.45x3.85x2.0)	OR-357 OR-354	OR-352 OR-355	OR-M302X (X=2/3/4) OR-M304X (X=2/3/4) OR-M305X (X=2/3/4) OR-M306X (X=2/3/4) OR-M308X (X=2/3/4)	OR-M501 OR-M601 OR-M701	OR-M440A OR-M460A	OR-155E	
LSOP4 (7.5x2.54x2.0)	OR-10XX (XX=01……20)						
LSO6				OR-50L		OR-W314 OR-W340	

QST –MagnTek
Magnetic Sensors
MEMS Sensors



GXCAS Temperature Pressure Sensors

Series of Temperature Sensors

GXCAS 中科银河芯

Model	GXCAS 18B20	GXCAS 18B20H	GXCAS 18B20U	GXCAS 18B20UH	GXCAS 18B20S	GXCAS 18B20SH	GXCAS 18B20W	GXCAS 1820	GXCAS HT02	GXCAS 30H05	GXCAS 20MH01	GXCAS 20ME04	GXCAS TS03
Package	T092	T092	MSOP8	MSOP8	T092S	MSOP8	T092-2	T092	T092	T092/92S	T092	T092	DFN8
Size	4.6*4.6mm		3.0.*3.0mm		3.2*4.0mm		4.6*4.6mm		4.6*4.6mm	4.6*4.6mm	4.6*4.6mm	4.6*4.6m	3.0.*3.0mm
Accuracy	±0.4℃	±0.1℃	±0.5℃	±0.1℃	±0.4℃	±0.1℃	±0.4℃	±0.8℃	±0.8℃	±0.5℃	±0.1℃	±0.4℃	±0.1℃
Temperature width	-55℃~+125℃ (-67℉~+257℉)								-55℃~+150℃	-60℃~+200℃	-55℃~+125℃	-55℃~+125℃	-40℃~+125℃
Resolution	You can choose between 9-12 bits												16 bits
Conversion speed	Temperature conversion rate<400ms/5ms, at 12bits								Temperature conversion rate<400ms, 12bits				2ms at least
ESD	Super strong electrostatic protection HBM 8000V / MM 800V								Super strong electrostatic protection HBM 8000V				HBM 4000V
Application mode	Multipoint (Distributed) /Single point (Point to point)							Single point	Multipoint (Distributed) /Single point (Point to point)			With memory	
Highlights	Standard	High-precision	Surface sticker/packaging	High-precision /Surface sticker	92S packaging	92S packaging /High-precision	Two feet	Economic Edition	Up to 175℃	Up to 200℃	14 bits 0.015625℃	1024 bits EEPROM Memory	16 bits 0.004℃
Monthly capacity	1KK	300K							100K				200K



Standard IC and Discretes

LRC 乐山无线电股份有限公司 Leshan Radio Company, Ltd

DIODE

Protective	Rectifier	Schottky	Zener	Switching	Bridge	SiC Diode
STD ESD	STD Rectifier	STD Schottky	PD<0.5W Vz: 2.0V-91V	STD Switching	D Series	650V/1200V Schottky
LV&LC ESD	FD, UFD	Low VF	PD: 0.5W,1W Vz:2.4V-110V	Fast Switching	1-8A Surface Mount	
TVS	High Voltage	High ESD	ESD Protector 225mW,5.6V-33V	Utral Fast	GBU/GBL	
TSS				High V_{BR}	DB Series	
					3-Phase	



Standard IC and Discretes

LRC 乐山无线电股份有限公司 Leshan Radio Company, Ltd

TRANSISTOR

General Purpose

Low $V_{CE(sat)}$ V_{CE}<0.3V

High Current I_C>1A

High V V_{CEO}>300V

STD

High Frequency

Switching

Fast Switching
T_{ON}<50nS T_{OFF}<110nS

STD

Digital

LMUN Series

LDT Series



Standard IC and Discretes

LRC 乐山无线电股份有限公司 Leshan Radio Company, Ltd

MOSFET & IGBT

Signal MOSFET	Low Voltage MOSFET	Medium Voltage MOSFET	High Voltage MOSFET	IGBT
Planar& Trench MOSFET ±20～ ±60V	Trench MOSFET ±8～±60V	Trench MOSFET ±80～±150V	Planar MOSFET 800～1000V	650V～1200V 15A-50A
	SGT MOSFET 30 ～60V	SGT MOSFET 80 ～250V	Cool MOSFET 600～800V	



Standard IC and Discretes

LRC 乐山无线电股份有限公司 Leshan Radio Company, Ltd

Integrated Circuit

Power Management

- Voltage Regulator
- DC/DC Converter
- LDO
- Li Battery Management
- Voltage Reference
- Voltage Detector/ Reset

Driver Circuit

- Darlington Driver Array
- OP AMP
- Comparator

Storage

- EEPROM
- FLASH

RF IC

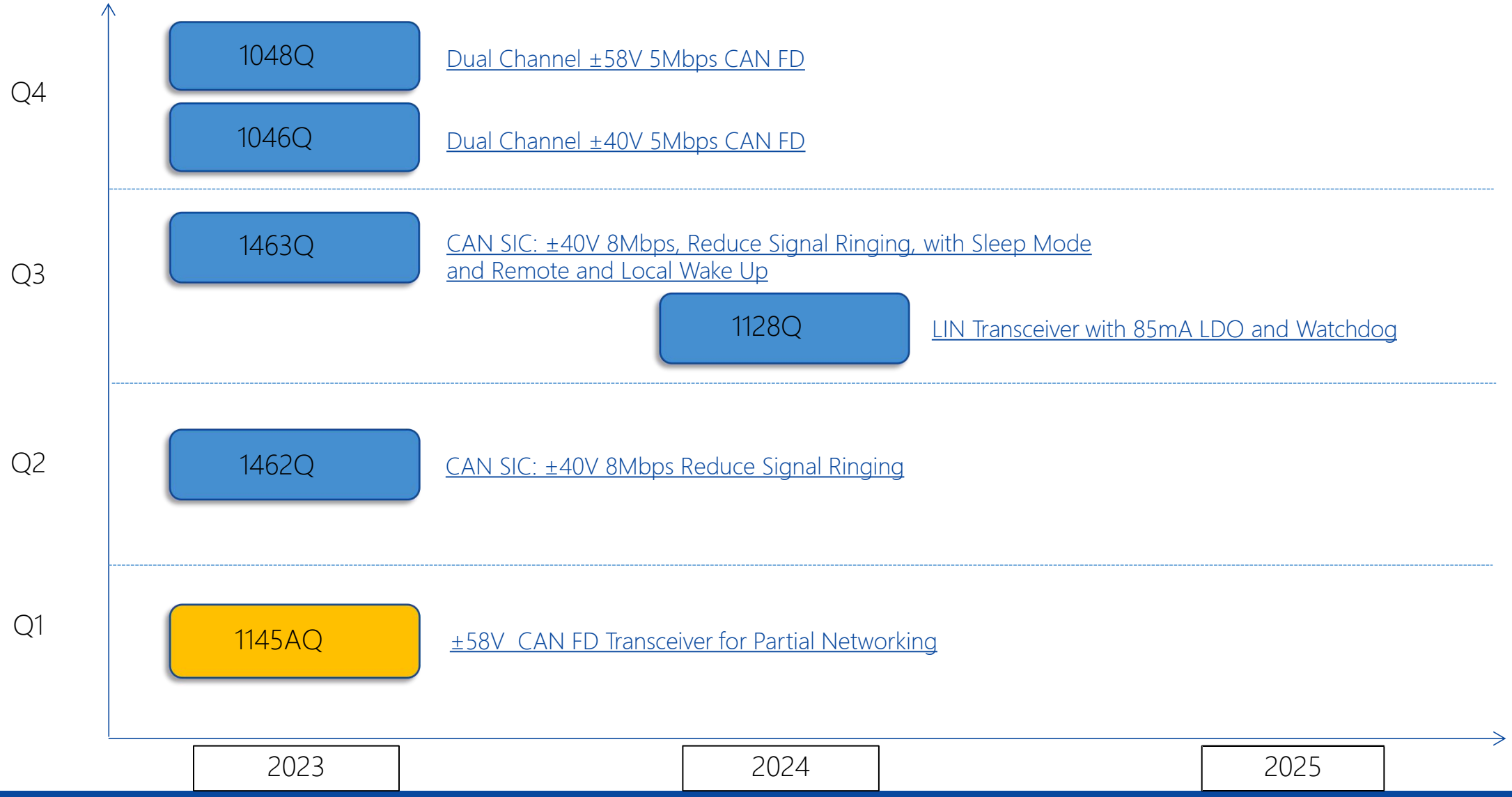
- Low Noise Amplifier (LNA)



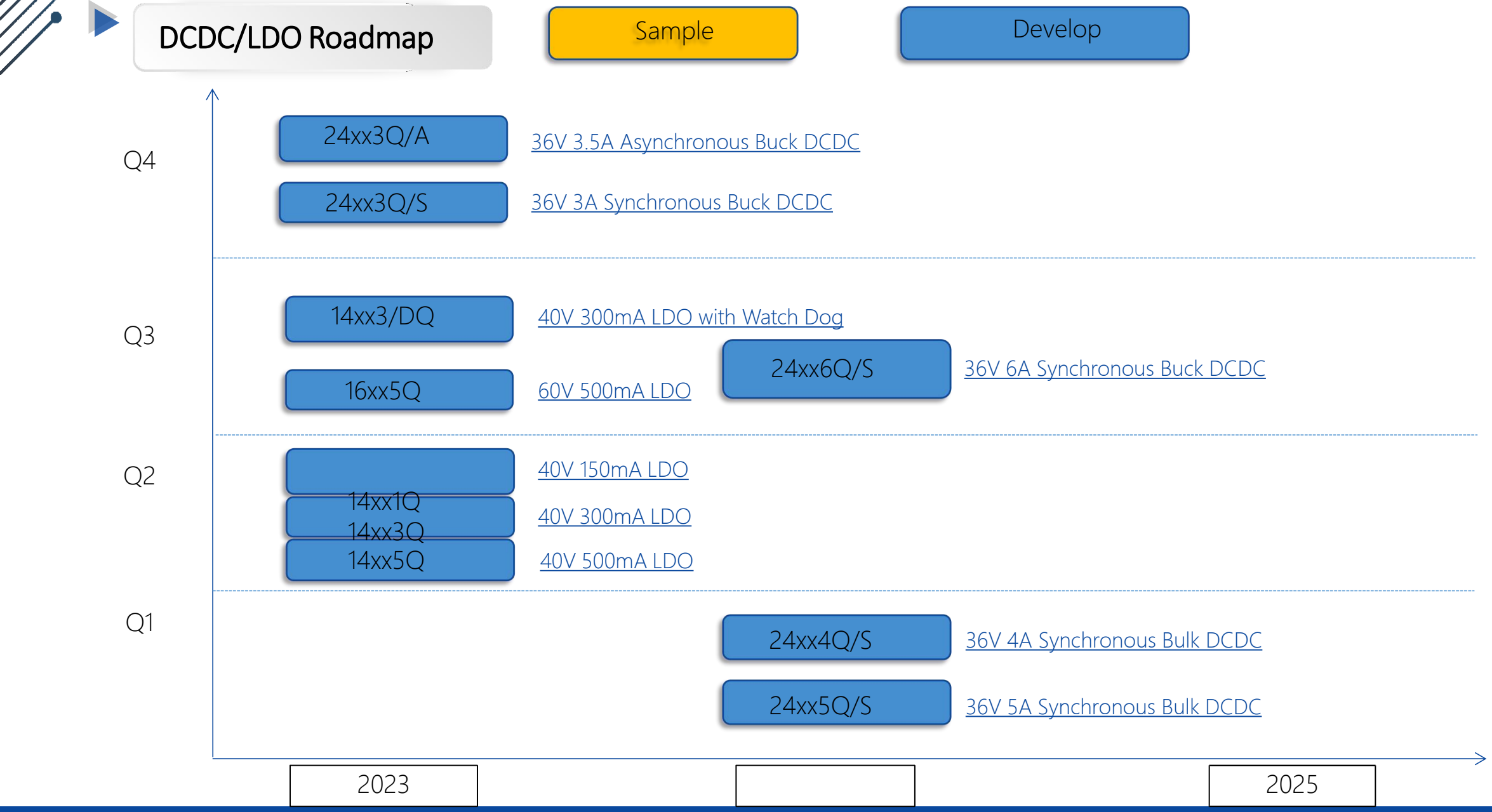
CAN/LIN Roadmap

Sample

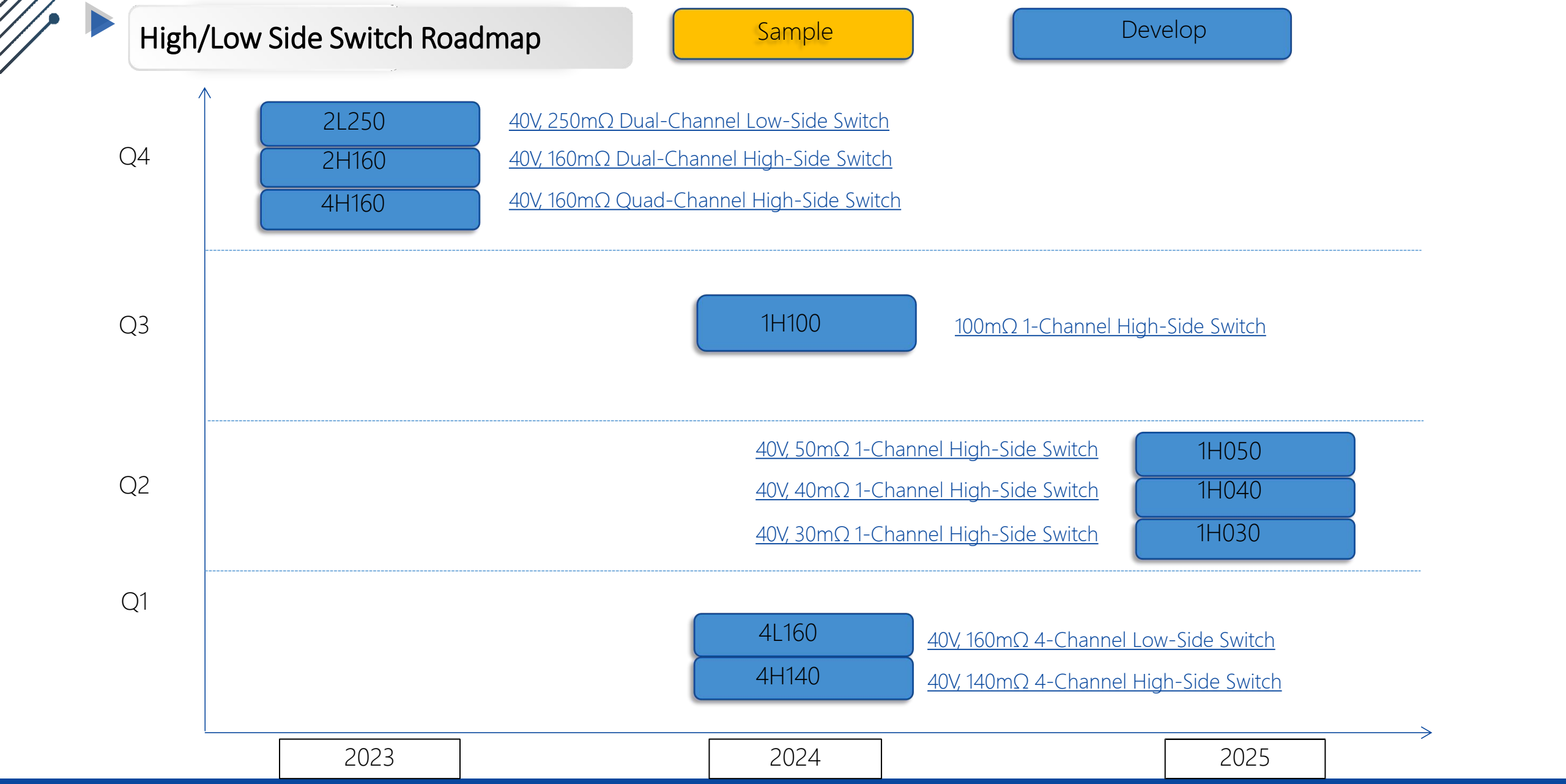
Develop



DCDC/LDO Roadmap



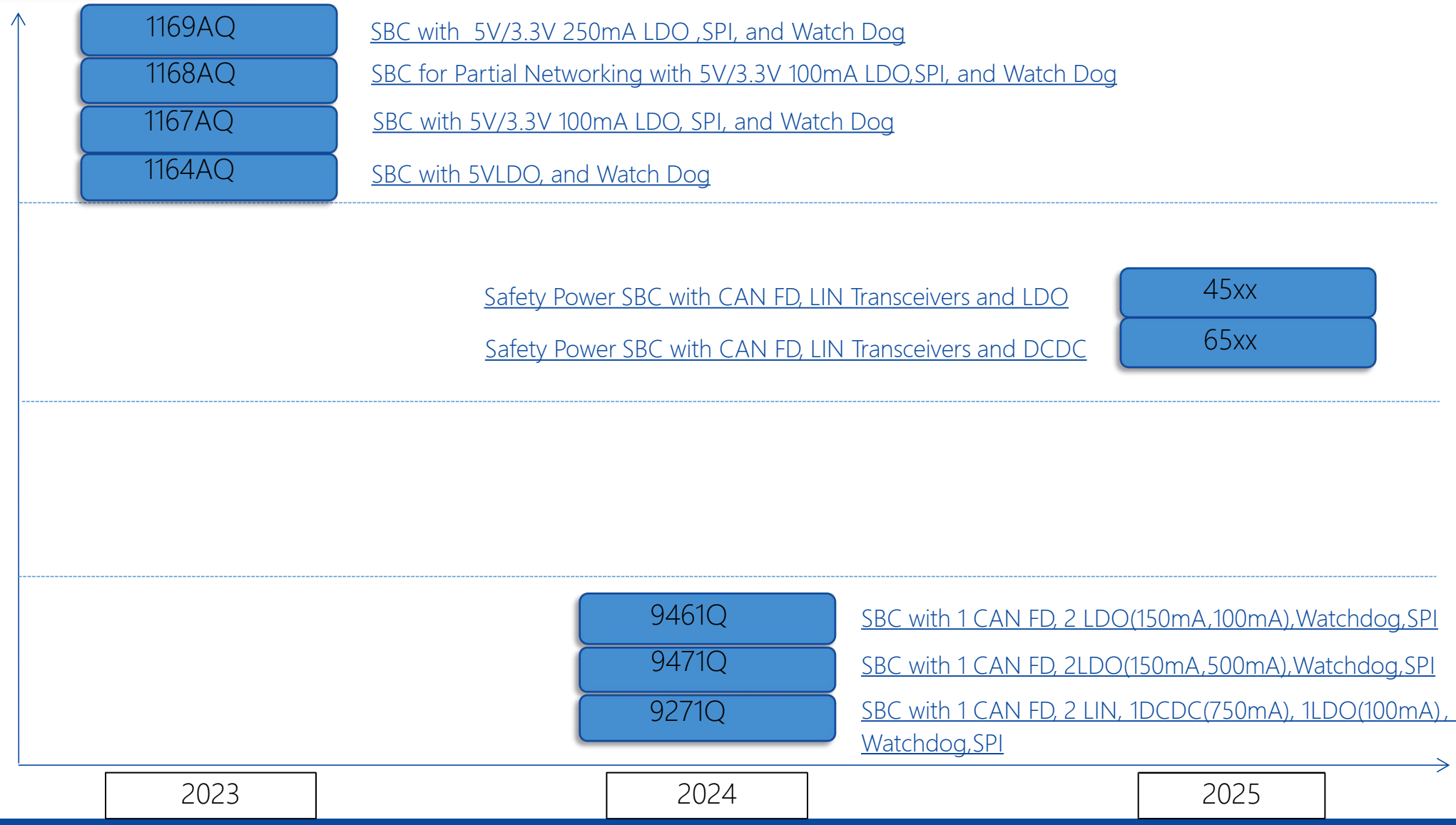
High/Low Side Switch Roadmap



SBC Roadmap

Sample

Develop



China Semiconductors