

# POWER MANAGEMENT INTEGRATED CIRCUITS (PMICs)



| SECURE CONNECTIONS  
FOR A SMARTER WORLD |

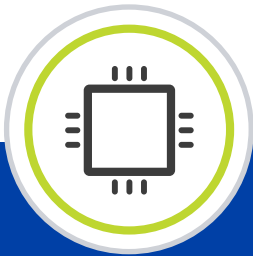
## NXP PMICs are highly integrated, high-performance power management solutions for automotive, consumer and industrial

Our PMICs provide scalable, robust and proven platform solutions for high-performance applications processors, networking and other processors.

Using innovative process technologies, our PMICs offer high-efficiency solutions designed to extend battery life, reduce power dissipation and minimize EMC.

These PMICs bring an advanced level of configurability and programmability at the system level.

A single device can be easily configured to power a wide range of processors or FPGAs. One-time programmable (OTP) memory stores configuration without the need for external memory.



**SYSTEM  
SOLUTION**



**EFFICIENCY**



**SAFETY**

### **YOUR FUNCTIONAL SAFETY AND POWER MANAGEMENT PARTNER**

**ENABLING SMART SYSTEM POWER PLATFORM  
STRATEGIES FOR FLEXIBLE AND SCALABLE SOLUTIONS FOR DIFFERENT MARKETS**



**AUTOMOTIVE**



**INDUSTRIAL**



**SMART HOME**

# KEY FEATURES

- Switching and linear regulators
- Battery management functions
- Optimized power modes management
- OTP memory for flexible configurability
- System interface and control for advanced scalability
- One-stop customer service and support as part of reference design platforms
- Auto-sync signaling enables all devices to be synchronized and act as one single PMIC
- Advanced functional safety architecture

# BYLINK SYSTEM POWER PLATFORM

The missing link to safely power all ECUs.

NXP's safe, scalable, expandable BYLink System Power Platform is the answer to an easy and vital link towards a safe and configurable power management design, connecting various NXP SBCs/PMICs devices together as a single power system.

## ADDRESSES KEY CHALLENGES

- Power dissipation management
- Functional safety integration
- Complex power up/down sequence management

## KEY BENEFITS

- Accelerate time-to-market
- Simplify safety analysis
- Enable platform approach

[www.nxp.com/BYLink](http://www.nxp.com/BYLink)

# PMIC COMMUNITY

The PMIC community is a dedicated community with experts available to answer your questions.

<https://community.nxp.com/community/Power-Management>

## POWER MANAGEMENT IC

	Features	PCA9420	PCA9450	PCA9451	PCA9460	PF0100	PF0200	PF1510
Power Management Features	Orderable part numbers	PCA9420UKZ PCA9420BSZ	PCA9450AAHNY PCA9450BHNY PCA9450CHNY	PCA9451AHNY	PCA9460AUK PCA9460BUK PCA9460CUK	MMPF0100xxAEP	MMPF0200xxAEP	MC34PF1510xxEP
	Buck	1*(0.5 V~1.5 V or fixed 1.8 V / 250 mA) 1*(1.5 V~2.1 V, 2.7 V~3.3 V / 500 mA)	3*(0.6 V~2.1875 V / 3 A) 1*(0.6 V~3.4 V / 3 A) 2*(0.6 V~3.4 V / 2 A)	3*(0.6 V~2.1875 V / 2 A) 1*(0.6 V~3.4 V / 3 A) 1*(0.6 V~3.4 V / 2 A) 1*(0.6 V~3.4 V / 1.5 A)	2*(0.6 V~3.4 V / 1 A) 2*(0.6 V~2.1875 V / 1 A)	1*(0.3 V~1.875 V / 2.5 A) 1*(0.3 V~1.875 V / 2 A) 1*(0.4 V~3.3 V / 2 A, 1.2 V~3.3 V / 2.5 A) 2*(0.4 V~3.3 V / 1.25 A) 1*(0.4 V~3.3 V / 1 A)	1*(0.3 V~1.875 V / 2.5 A) 1*(0.4 V~3.3 V / 1.5 A) 2*(0.4 V~3.3 V / 1.25 A)	2*(0.6 V~1.3875 V or 1.1 V~3.3 V / 1 A) 1*(1.8 V~3.3 V / 1 A)
	Boost	–	–	–	–	1*(5 V~5.15 V/600 mA)	1*(5 V~5.15 V / 600 mA)	–
	LDO	1*(1.70 V~1.90 V / 1 mA) 1*(1.5 V~2.1 V, 2.7 V~3.3 V / 250 mA)	1*(1.6 V~1.9 V, 3.0 V~3.3 V / 10 mA) 1*(0.8 V~1.15 V / 10 mA) 1*(0.8 V~3.3 V / 300 mA) 1*(0.8 V~3.3 V / 200 mA) 1*(0.8 V~3.3 V / 150 mA)	1*(1.6 V~1.9 V, 3.0 V~3.3 V / 10 mA) 1*(0.8 V~3.3 V / 200 mA) 1*(1.8 V~3.3 V / 150 mA)	3*(0.8 V~3.3 V / 250 mA) 1*(0.8 V~3.3 V / 10 mA) 1*(0.6 V~1.95 V / 250 mA)	1*(0.8 V~1.55 V / 100 mA) 1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA) 1*(1.8 V~3.3 V / 200 mA)	1*(0.8 V~1.55 V / 100 mA) 1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA) 1*(1.8 V~3.3 V / 200 mA)	2*(0.75 V~1.5 V / 1.8 V~3.3 V / 300 mA) 1*(1.8 V~3.3 V / 400 mA)
	Others	Charger	Load Switch, I <sup>2</sup> C Level Translator	Load Switch, I <sup>2</sup> C Level Translator	4* Load Switch	Coin-cell charger	Coin-cell charger	USB_PHY LDO (3.3 V or 4.9 V/60 mA); VREFDDR LDO (0.45 V~0.9 V / 10 mA)
Safety Features (listed for higher level of ASIL)	Fit for ASIL	QM	QM	QM	QM	QM	QM	QM
	Watchdog	Yes	–	–	–	–	–	Yes
	BIST	–	–	–	–	–	–	–
	ABIST On Demand	–	–	–	–	–	–	–
	Safety Output	–	–	–	–	–	–	–
	Documentation/Analysis	–	–	–	–	–	–	–
System Features	Operating Voltage (V)	2.5 – 5.5	2.7 – 5.5	2.7 – 5.5	3.0 – 5.5	2.85 – 4.5	2.8 – 4.5	2.65 – 6.0
	Ambient Temp Range (°C)	-40 °C to 85 °C	-40 °C to 105 °C	-40 °C to 105 °C	-40 °C to 85 °C	-40 °C to 85 °C / 105 °C	-40 °C to 85 °C / 105 °C	-40 °C to 85 °C / 105 °C
	Low-power Off Mode (25 °C) All Reg Off	Low power with ship mode	–	–	–	–	–	–
	GPIO	1.8 V	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V	–	–	1.8 V / 3.3 V
	AMUX (battery, I/O, temp, VREF)	–	–	No	–	–	–	–
	Communication	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
	Special Features	Linear battery charger integrated	Load Switch, I <sup>2</sup> C Level Translator	Load Switch, I <sup>2</sup> C Level Translator	Load Switch	Coin-cell charger RTC Supply	Coin-cell charger RTC Supply	Coin-cell charger RTC Supply
	Package (mm)	HVQFN24 (3 mm x 3 mm x 0.85 mm) or WLCSP25 (2.09 mm x 2.09 mm x 0.525 mm)	HVQFN56 (7 mm x 7 mm x 0.85 mm)	HVQFN56 (7 mm x 7 mm x 0.85 mm)"	WLCSP42 (2.86 mm x 2.46 mm x 0.525 mm)	QFN56 (8 mm x 8 mm x 0.85 mm)	QFN56 (8 mm x 8 mm x 0.85 mm)	HVQFN406 (5 mm x 5 mm x 0.85 mm)
MCU alignment	i.MX RT600 i.MX RT500 (BSP available)	i.MX 8M Mini i.MX 8M Nano i.MX 8M Plus (BSP available)	i.MX 93 Family C&I versions (BSP available)	i.MX 8ULP	i.MX 6S / D / Q / QP / SL / SX (BSP available)	i.MX 6SL / SX (BSP available)	i.MX 7ULP, 6UL, 6ULL, 6ULZ (BSP available)	
BYLink System Power Platform	–	–	–	–	–	–	–	

**POWER MANAGEMENT IC (continued)**

	Features	PF1550	PF3000	PF3001	PF4210	VR500	VR5100
Power Management Features	Orderable part numbers	MC32PF1550xxEP	MC32PF3000xxEP	MC32PF3001xxEP	MC32PF4210xxES	MC34VR500VxES	MC34VR5100xxEP
	Buck	2*(0.6 V~1.3875 V or 1.1 V~3.3 V / 1 A) 1*(1.8 V~3.3 V / 1 A)	1*(0.7 V~1.475 V/1.75 A) 1*(1.5 V~1.85 V, 2.5 V~3.3 V/1.25 A) 1*(0.9 V~1.65 V/1.5 A)	1*(0.7 V~1.425 V, 1.8 V, 3.3 V/2.75 A) 1*(1.5 V~1.85 V, 2.5 V~3.3 V/1.25 A) 1*(0.9 V~1.65 V/1.5 A)	1*(0.3 V~1.875 V / 2.5 A) 1*(0.3 V~1.875 V / 2 A) 1*(0.4 V~3.3 V / 3 A) 2*(0.4 V~3.3 V / 1.5 A) 1*(0.4 V~3.3 V / 1 A)	1*(0.625 V~1.875 V / 4.5 A) 1*(0.625 V~3.3 V / 2 A) 1*(0.625 V~3.3 V / 2.5 A)	1*(0.7 V~1.425 V, 1.8 V, 3.3 V / 3.8 A) 1*(1.5 V~1.85 V, 2.5 V~3.3 V / 1.25 A) 1*(0.9 V~1.65 V / 1.5 A)
	Boost	–	1*(5 V~5.15 V/600 mA)	–	1*(5 V~5.15 V/600 mA)	–	1*(5 V~5.15 V / 600 mA)
	LDO	2*(0.75 V~1.5 V / 1.8 V~3.3 V / 300 mA) 1*(1.8 V~3.3 V / 400 mA)	1*(2.85 V~3.3 V / 350 mA) 1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA)	1*(1.8 V~1.85 V, 2.85 V~3.3 V / 100 mA) 1*(2.85 V~3.3 V / 350 mA) 1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA)	1*(0.8 V~1.55 V / 100 mA) 1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA) 1*(1.8 V~3.3 V / 200 mA)	1*(0.8 V~1.55 V / 250 mA) 2*(1.8 V~3.3 V / 100 mA) 1*(1.8 V~3.3 V / 350 mA) 1*(1.8 V~3.3 V / 200 mA)	1*(2.85 V~3.3 V / 350 mA) 1*(0.8 V~1.55 V / 250 mA) 1*(1.8 V~3.3 V / 350 mA)
	Others	USB_PHY LDO (3.3 V or 4.9 V / 60 mA); VREFDDR LDO (0.45 V~0.9 V / 10 mA)	Coin-cell charger	Coin-cell charger	Coin-cell charger	–	Coin-cell charger
Safety Features (listed for higher level of ASIL)	Fit for ASIL	QM	QM	QM	QM	QM	QM
	Watchdog	Yes	–	–	–	–	–
	BIST	–	–	–	–	–	–
	ABIST On Demand	–	–	–	–	–	–
	Safety Output	–	–	–	–	–	–
	Documentation/Analysis	–	–	–	–	–	–
System Features	Operating Voltage (V)	2.65 – 6.0	2.8 – 5.5	2.8 – 5.5	2.8 – 4.5	2.8 – 4.5	2.8 – 4.5
	Ambient Temp Range (°C)	-40 °C to 85 °C / 105 °C	-40 °C to 85 °C / 105 °C	-40 °C to 85 °C / 105 °C	-40 °C to 85 °C / 105 °C	-40 °C to 105 °C	-40 °C to 105 °C
	Low-power Off Mode (25 °C) All Reg Off	Low power with ship mode	–	–	–	–	–
	GPIO	1.8 V / 3.3 V	–	–	–	–	–
	AMUX (battery, I/O, temp, VREF)	–	–	–	–	–	–
	Communication	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
	Special Features	Linear battery charger integrated Coin-cell charger RTC Supply	Coin-cell charger & always-on RTC supply	Coin-cell charger & always-on RTC supply	Coin-cell charger RTC Supply	–	Coin-cell charger RTC Supply
	Package (mm)	HVQFN40 (5 mm x 5 mm x 0.85 mm)	QFN48 (7 mm x 7 mm x 0.85 mm)	QFN48 (7 mm x 7 mm x 0.85 mm)	QFN56 (8 mm x 8 mm x 0.85 mm)	QFN56 (8 mm x 8 mm x 0.85 mm)	QFN48 (7 mm x 7 mm x 0.85 mm)
MCU alignment	i.MX 7ULP, 6UL, 6ULL (BSP available)	i.MX 7, i.MX 6SL / SX / UL	i.MX 7, i.MX 6SL / SX / UL	i.MX 8MC, 8MD (BSP available)	LS1020 / 21 / 23 / 24 / 26 / 28 / 43 / 46, T1013 / 23 (BSP available)	LS1012, LX2160 (BSP available)	
BYLink System Power Platform	–	–	–	–	–	–	

## POWER MANAGEMENT IC BELONGING TO BYLINK SYSTEM POWER PLATFORM

	Features	PF0300 (Pre-Production)	PF0900 (Pre-Production)	PF5020	PF5023	PF5024	PF5030
Power Management Features	Orderable part numbers	PPF0300xxxxxES	PPF09000xxxxxES	MPF5020xxxxxES	MPF5023xxxxxES	MPF5024xxxxxES	PPF5030AMDA0ES
	Buck	3*(0.5 V-3.3 V / 3.5 A)	1*(0.5 V-3.3 V / 3.5 A), 4*(0.3 V-3.3 V / 2.5 A)	2x (0.4 V to 1.8 V / 2.5 A) 1 x (1 V to 4.1 V / 2.5 A)	3x (0.4 V to 1.8 V / 2.5 A)	4x (0.4 V to 1.8 V / 2.5 A)	2*(0.7 V~1.5 V / 3.5 A with SVS and dual phase capability, up to 7 A) 1*(1 V~4.1 V, 2.5 A)
	Boost	–	–	0	0	0	–
	LDO	1*(0.75 V-3.3V / 500 mA)	1*(0.75 V-3.3 V / 500 mA), 2*(0.65 V-3.3 V / 200 mA)	1x (1.5 V to 5 V / 400 mA)	0	0	2*(1.5 V~ 5.0 V / 400 mA) with load switch capability
	Others	–	VAON: (1.8 V-3.3 V / 10 mA)	Load switch	–	–	–
Safety Features (listed for higher level of ASIL)	Fit for ASIL	QM	QM / ASIL B/D	QM / ASIL B	QM / ASIL B	QM / ASIL B	QM / ASIL B/D
	Watchdog	Simple	Simple/Challenger	Simple	Simple	Simple	Simple/Challenger
	BIST	–	ABIST/LBIST	ABIST	ABIST	ABIST	ABIST/LBIST
	ABIST On Demand	No	Yes	Yes	Yes	Yes	Yes
	Safety Output	PGOOD	PGOOD	5x PGOOD	4x PGOOD	5x PGOOD	FS0B, RSTB, PGOOD
	Documentation/ Analysis	Yes	Yes	Yes	Yes	Yes	Yes
System Features	Operating Voltage (V)	2.7 – 5.5	2.7 – 5.5	2.5 – 5.5	2.5 – 5.5	2.5 – 5.5	3.15 – 5.25
	Ambient Temp Range (°C)	-40 °C to +125 °C	-40 °C to +125 °C	-40 °C to 105 °C / 125 °C	-40 °C to 105 °C / 125 °C	-40 °C to 105 °C / 125 °C	-40 °C to 125 °C
	Low-power Off Mode (25 °C) All Reg Off	–	3µA	–	–	–	–
	GPIO	1.8 V / 3.3 V	1.8 V / 3.3 V / 5 V	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V	–
	AMUX (battery, I/O, temp, VREF)	No	–	Yes	Yes	Yes	Yes
	Communication	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
	Special Features	Spread-spectrum Clock synchronization	Spread-spectrum, Clock synchronization	Coin-cell charger RTC Supply Spread-spectrum Clock synchronization	Spread-spectrum Clock synchronization	Spread-spectrum Clock synchronization	Spread-spectrum
	Package (mm)	HWQFN28 (4.5 mm x 4.5 mm x 0.68 mm)	HPQFN56 (8 mm x 8 mm x 0.9 mm)	HVQFN40 (6 mm x 6 mm x 0.85 mm)	HVQFN40 (6 mm x 6 mm x 0.85 mm)	HVQFN40 (6 mm x 6 mm x 0.85 mm)	HVQFN40 (6 mm x 6 mm x 0.85 mm)
MCU alignment	–	i.MX 95	i.MX RT117x	i.MX 8	i.MX 8	S32xx	
BYLink System Power Platform	Yes	Yes	Yes	Yes	Yes	Yes	



**POWER MANAGEMENT IC BELONGING TO BYLINK SYSTEM POWER PLATFORM (continued)**

	Features	PF5103 (Pre-production)	PF5113 (Pre-Production)	PF5123 (Pre-Production)	PF52	PF5300 PF5301 PF5302	PF71
Power Management Features	Orderable part numbers	PPF5103xxxxES	PPF5113xxxxES	PPF5123xxxxES	MPPF5200AMBxxES	MPPF5300xxxxES MPPF5301xxxxES MPPF5302xxxxES	MPPF7100xxxxES
	Buck	3*(0.5 V-3.3 V / 3.5 V)	1*(0.8 V, 0.825 V, 0.9 V or 1.2 V / 2.6 A), 1*(1.3 V, 1.5 V, 1.8 V, 2.3 V, 2.5 V, or 3.3 V / 3.5 A), 1*(1.1 V, 1.3 V, 1.5 V, 2.5 V, or 3.3 V / 2.6 A)	3*(0.5 V-3.3 V / 3.5 A)	2x (0.6 V to 1.2 V / 8 A)	PF5300: 1*(0.5 V – 1.2 V)/12 A PF5301: 1*(0.5 V – 1.2 V) / 8 A PF5302: 1*(0.5 V – 1.2 V) / 15 A	4x (0.4 V to 1.8 V / 2.5 A) multiphase 1x (1 V to 4.1 V / 2.5 A)
	Boost	–	–	–	–	–	–
	LDO	1*(0.75 V-3.3 V / 200 mA), 1*(0.75 V-3.3 V / 500 mA)	1*(1.8 V-3.3 V / 200 mA), 1*(1.8 V-3.3 V / 250 mA)	–	–	–	2x (0.8 V to 5 V / 400 mA)
	Others	–	–	–	–	–	VSNSV1: (1.8 V / 3.0 V / 3.3 V, 10 mA) VSNSV2: (0.8 V / 0.9 V / 1.8 V, 10 mA)
Safety Features (listed for higher level of ASIL)	Fit for ASIL	QM / ASIL B/D	QM / ASIL B/D	QM / ASIL B/D	QM / ASIL B	QM / ASIL B/D	QM / ASIL B
	Watchdog	Simple/Challenger	Simple/Challenger	Simple/Challenger	Window Watchdog	Simple/Challenger	Window Watchdog
	BIST	ABIST/LBIST	ABIST/LBIST	ABIST/LBIST	ABIST	ABIST	ABIST
	ABIST On Demand	Yes	Yes	Yes	Yes	Yes	Yes
	Safety Output	PGOOD	PGOOD	PGOOD	PGOOD	PGOOD	FSOB, PGOOD
	Documentation/Analysis	Yes	Yes	Yes	Yes	Yes	Yes
System Features	Operating Voltage (V)	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5
	Ambient Temp Range (°C)	-40 °C to 125 °C	-40 °C to +125 °C	-40 °C to +125 °C	-40 °C to 125 °C	-40 °C to 125 °C	-40 °C to 105 °C / 125 °C
	Low-power Off Mode (25 °C) All Reg Off	–	–	–	–	1.5uA	–
	GPIO	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V / 5.0 V	1.8 V / 3.3 V	1.8 V / 3.3 V
	AMUX (battery, I/O, temp, VREF)	No	No	No	Yes	No	Yes
	Communication	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
	Special Features	Spread-spectrum Clock synchronization	Spread-spectrum Clock synchronization	Spread-spectrum Clock synchronization	Spread-spectrum Clock synchronization	Adaptive voltage positioning	2* RTC Supply Spread-spectrum Clock synchronization
	Package (mm)	HWQFN28 (4.5 mm x 4.5 mm x 0.68 mm)	HWQFN28 (4.5 mm x 4.5 mm x 0.68 mm)	HWQFN28 (4.5 mm x 4.5 mm x 0.68 mm)	PQFN32 (5 mm x 5 mm x 0.68 mm)	3.5 mm x 4.5 mm	HVQFN48 (7 mm x 7 mm x 0.85 mm)
	MCU alignment	–	–	–	S32R45, LX2160	S32G3	i.MX 8X / XL (BSP available)
BYLink System Power Platform	Yes	Yes	Yes	Yes	Yes	Yes	

**POWER MANAGEMENT IC BELONGING TO BYLINK SYSTEM POWER PLATFORM (continued)**

	Features	PF81	PF8101	PF8121	PF82	PF8201
Power Management Features	Orderable part numbers	MC33PF8100xxES	MC33PF8101A0ES MC34PF8101A0EP	MC32PF8121xxEP	MC33PF8200xxES	MC33PF8201A0ES
	Buck	6x (0.4 V to 1.8 V / 2.5 A) multiphase 1x (1 V to 4.1 V / 22.5 A)	4x (0.4 V to 1.8 V / 2.5 A) multiphase 2+2 1x (1 V to 4.1 V / 2.5 A)	6x (0.4 V to 1.8 V / 2.5 A) multiphase 2+2 1x (1 V to 4.1 V / 2.5 A)	6x (0.4 V to 1.8 V / 2.5 A) multiphase 4+2 1x (1 V to 4.1 V / 2.5 A)	4x (0.4 V to 1.8 V / 2.5 A) multiphase 2+2 1x (1 V to 4.1 V / 2.5 A)
	Boost	-	-	0	-	0
	LDO	4x (1.5 V to 5 V / 400 mA)	3x (1.5 V to 5 V / 400 mA)	4x (1.5 V to 5 V / 400 mA)	4x (1.5 V to 5 V / 400 mA)	3x (1.5 V to 5 V / 400 mA)
	Others	VSNVS: (1.8 V / 3.0 V / 3.3 V, 10 mA)	VSNVS: (1.8 V / 3.0 V / 3.3 V, 10 mA)	VSNVS: (1.8 V / 3.0 V / 3.3 V, 10 mA)	VSNVS: (1.8 V / 3.0 V / 3.3 V, 10 mA)	VSNVS: (1.8 V / 3.0 V / 3.3 V, 10 mA)
Safety Features (listed for higher level of ASIL)	Fit for ASIL	QM	ASIL B	QM	ASIL B	ASIL B
	Watchdog	Window Watchdog	Window Watchdog	Simple	Window Watchdog	Simple
	BIST	ABIST	ABIST	-	ABIST	ABIST
	ABIST On Demand	No	No	No	Yes	Yes
	Safety Output	PGOOD	PGOOD	PGOOD	FSOB, PGOOD	FSOB, PGOOD
	Documentation/Analysis	No	No	No	Yes	Yes
System Features	Operating Voltage (V)	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5	2.7 – 5.5
	Ambient Temp Range (°C)	-40 °C to 85 °C / 105 °C	-40 °C to 105 °C	-40 °C to 85 °C	-40 °C to 105 °C	-40 °C to 105 °C
	Low-power Off Mode (25 °C) All Reg Off	-	-	-	-	-
	GPIO	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V	1.8 V / 3.3 V
	AMUX (battery, I/O, temp, VREF)	Yes	Yes	Yes	Yes	Yes
	Communication	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
	Special Features	RTC Supply Coin-cell charger Spread-spectrum Clock synchronization	RTC Supply Coin-cell charger Spread-spectrum Clock synchronization	RTC Supply Coin-cell charger Spread-spectrum Clock synchronization	RTC Supply Coin-cell charger Spread-spectrum Clock synchronization	RTC Supply Coin-cell charger Spread-spectrum Clock synchronization
	Package (mm)	HVQFN56 (8 mm x 8 mm x 0.85 mm)	HVQFN56 (8 mm x 8 mm x 0.85 mm)	HVQFN56 (8 mm x 8 mm x 0.85 mm)	HVQFN56 (8 mm x 8 mm x 0.85 mm)	HVQFN56 (8 mm x 8 mm x 0.85 mm)
MCU alignment	i.MX 8, i.MX 8X, S32V, LS1043 / LS1046 / LA1575 / LA9358 / LX2160 (BSP available)	i.MX 8, i.MX 8X (BSP available)	i.MX 8, i.MX 8X (BSP available)	i.MX 8, i.MX 8X, S32V, LS1043 / LS1046 / LA1575 / LA9358 / LX2160 (BSP available)	i.MX 8, i.MX 8X, S32 V, LS1043 / LS1046 / LA1575 / LA9358 / LX2160 (BSP available)	
BYLink System Power Platform	Yes	Yes	Yes	Yes	Yes	