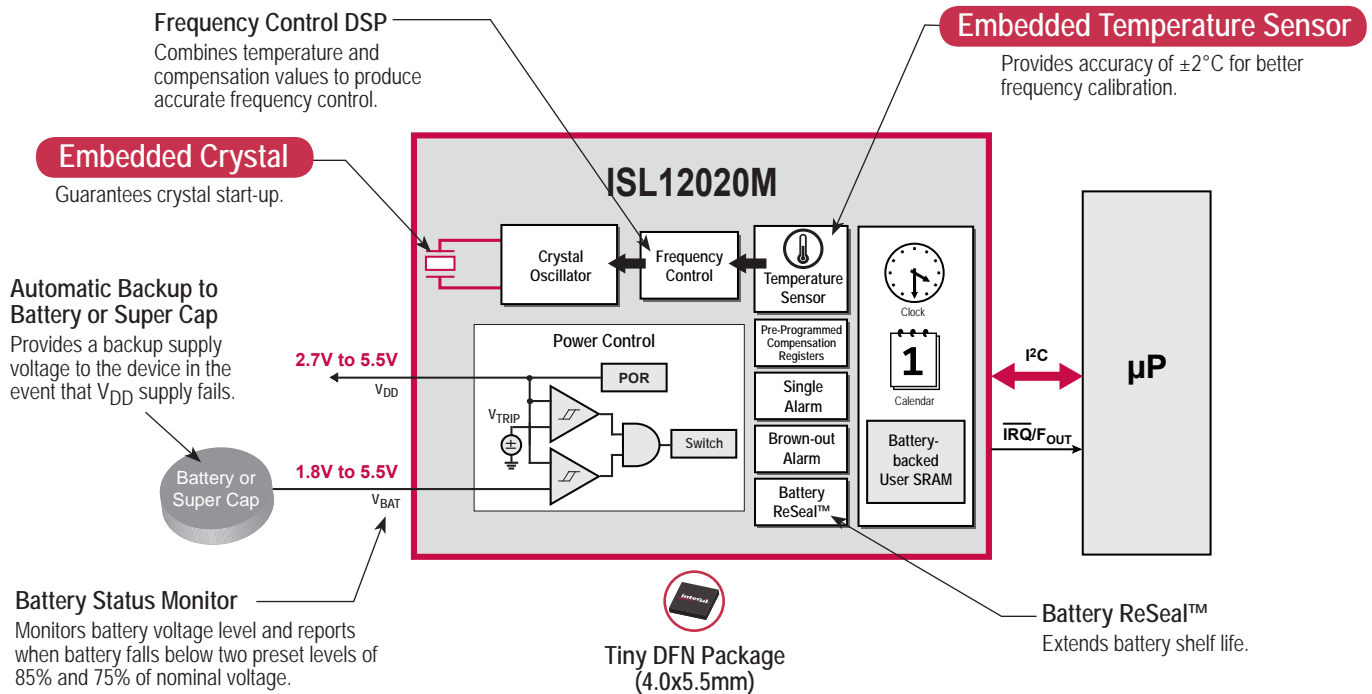
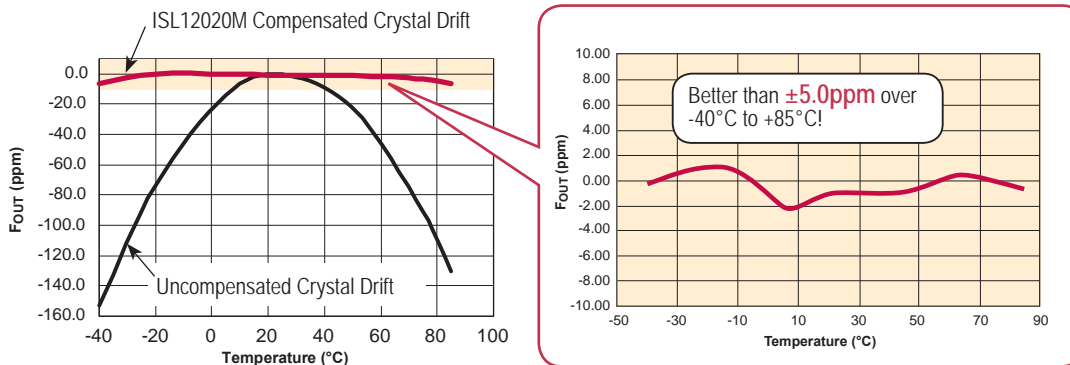


Tiny RTC Module with Embedded Crystal and Temperature Sensor Achieves Better Than ± 5.0 ppm Accuracy

ISL12020M, ISL12022M RTC modules eliminate the need for an external crystal and temperature sensor, which saves time to design, qualify, and characterize over temperature.



High Accuracy Even in Extreme Temperature Conditions

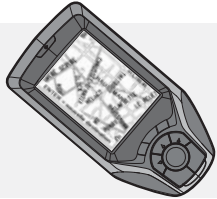


ISL12022M
Same great features as ISL12020M in SOIC package.



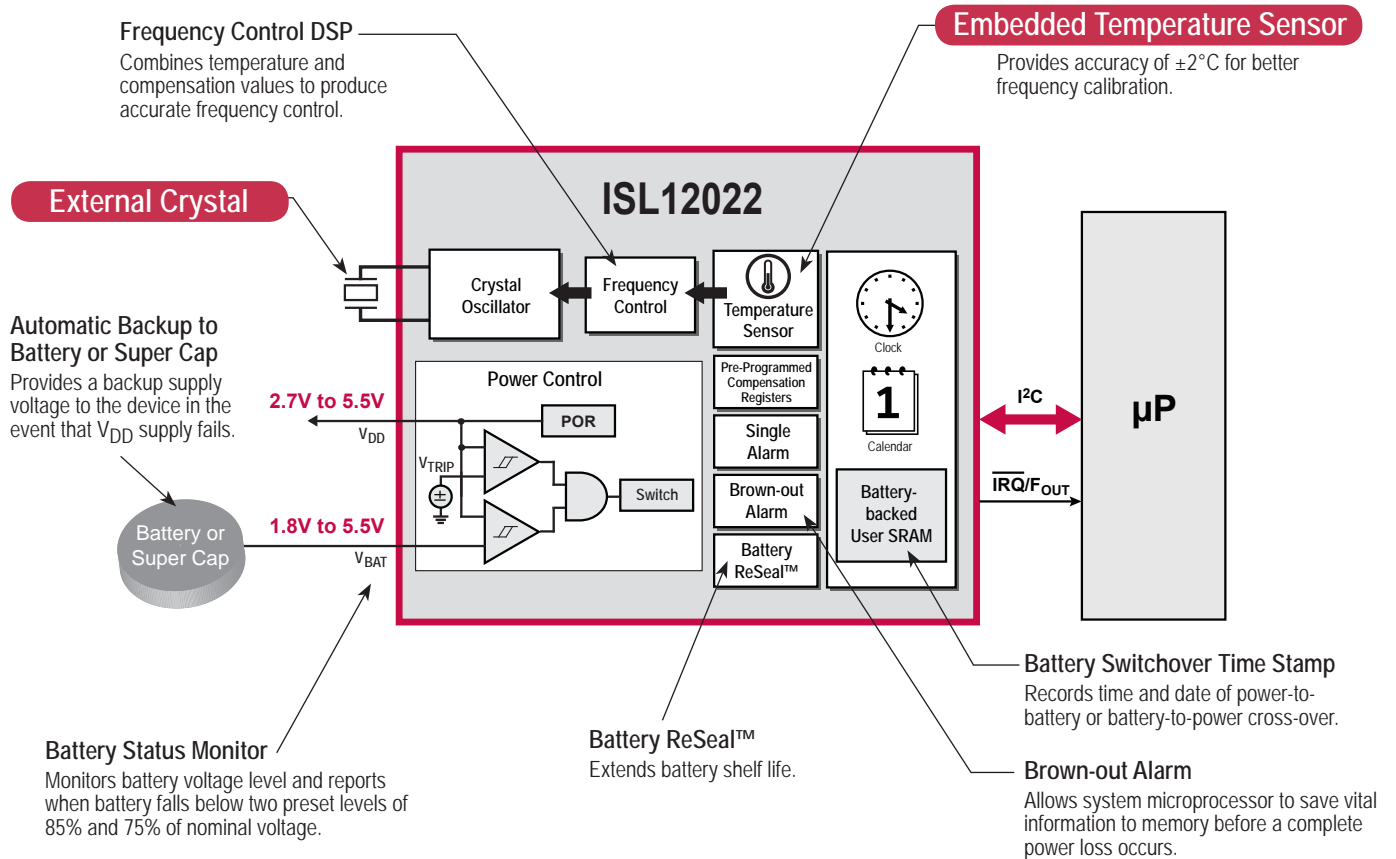
intersil®

Low Power RTC with Embedded Temperature Sensor Enables ± 5.0 ppm Timing Accuracy



High-End General Purpose Applications

The ISL12022, ISL12023 are great for industrial and consumer applications where improved timing accuracy over temperature is critical. These RTCs use an internal temperature sensor to achieve the necessary accuracy.



High Precision RTC with On-Chip Temperature Sensor

$V_{DD} = 2.7\text{V to } 5.5\text{V}$, $V_{BAT} = 1.8\text{V to } 5.5\text{V}$, $T_A = -40^\circ\text{C to } +85^\circ\text{C}$



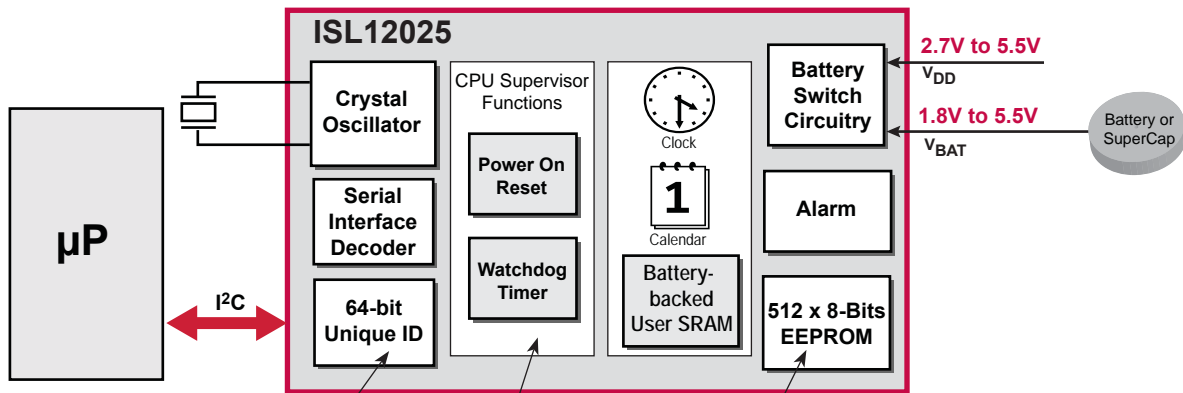
Part Number	Accuracy (ppm)	Alarms	Battery Switch Over Time Stamp	Battery Status Monitor	Brown-out Alarm	Daylight Savings	F_{OUT}	\overline{IRQ}	SRAM	Package
ISL12022	± 5	1	Y	Y	Y	Y	Shared Pin		128 Bytes	8 Ld SOIC
ISL12023	± 5	1	Y	Y	Y	Y	Dedicated Pin	Dedicated Pin	128 Bytes	14 Ld TSSOP

RTC with Factory Programmed 64-bit Unique ID Enhances Security



POS Applications

The ISL12024, ISL12025 are RTCs with embedded 64-bit unique ID, 512 x 8-bits EEPROM, and supervisory functions (ISL12025). These devices permit data encryption in security and networking applications and eliminate the need for an external stand-alone unique ID.



Embedded 64-bit Unique ID

Do you track your product for warranty purposes?

- Can be used to identify each node. Data from each node can be encrypted with a unique ID for security purposes.
- Unique ID can be accessed for reading purposes only.

Power-On Reset and Watchdog Timer (ISL12025 only)

5 selectable V_{TRIP} levels from 2.63V to 4.64V

512x8-bits EEPROM

- 16-byte page write mode (32 total pages)
- 8 modes of BlockLock™ protection
- >2,000,000 write cycle and 50 years endurance reliability

Coming Soon!



RTC with Embedded Unique ID

$V_{DD} = 2.7V$ to $5.5V$, $V_{BAT} = 1.8V$ to $5.5V$, $T_A = -40^{\circ}C$ to $+85^{\circ}C$



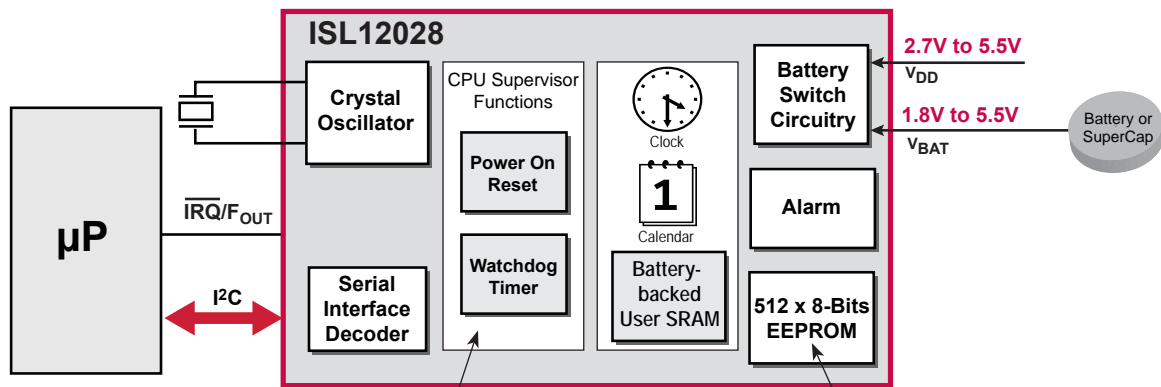
Part Number	Unique ID	Crystal Frequency Trimming	Alarms	CPU Supervisory Functions		Battery Backup	F_{OUT}	\overline{IRQ}	RESET	Intg. Memory	Package
				POR	Watchdog Timer						
ISL12024	64-Bit	Y	2	N	N	Y	Shared Pin	N	N	512x8-Bit EEPROM	8 Ld SOIC, 8 Ld TSSOP, 8 Ld TDFN*
ISL12025	64-Bit	Y	2	Y	Y	Y	-	Y	Y	512x8-Bit EEPROM	8 Ld SOIC, 8 Ld TSSOP

* Coming soon.

Low Power RTC with Integrated CPU Supervisory Function and 512x8-bits EEPROM Saves BOM Cost and PCB Real-Estate

General Purpose Applications

ISL12026/27/28/29 provide a complete set of leading features for consumer, medical, and industrial applications. These devices integrate the EEPROM and provide the industry's highest reliability and performance in small outline packages appropriate for designs with board space limitations.



Power-On Reset and Watchdog Timer
5 selectable V_{TRIP} levels from 2.63V to 4.64V

512x8-bits EEPROM

- 16-byte page write mode (32 total pages)
- 8 modes of BlockLock™ protection
- >2,000,000 write cycle and 50 years endurance reliability

RTC with Integrated EEPROM and CPU Supervisory Functions

$V_{DD} = 2.7V$ to $5.5V$, $V_{BAT} = 1.8V$ to $5.5V$, $T_A = -40^{\circ}C$ to $+85^{\circ}C$



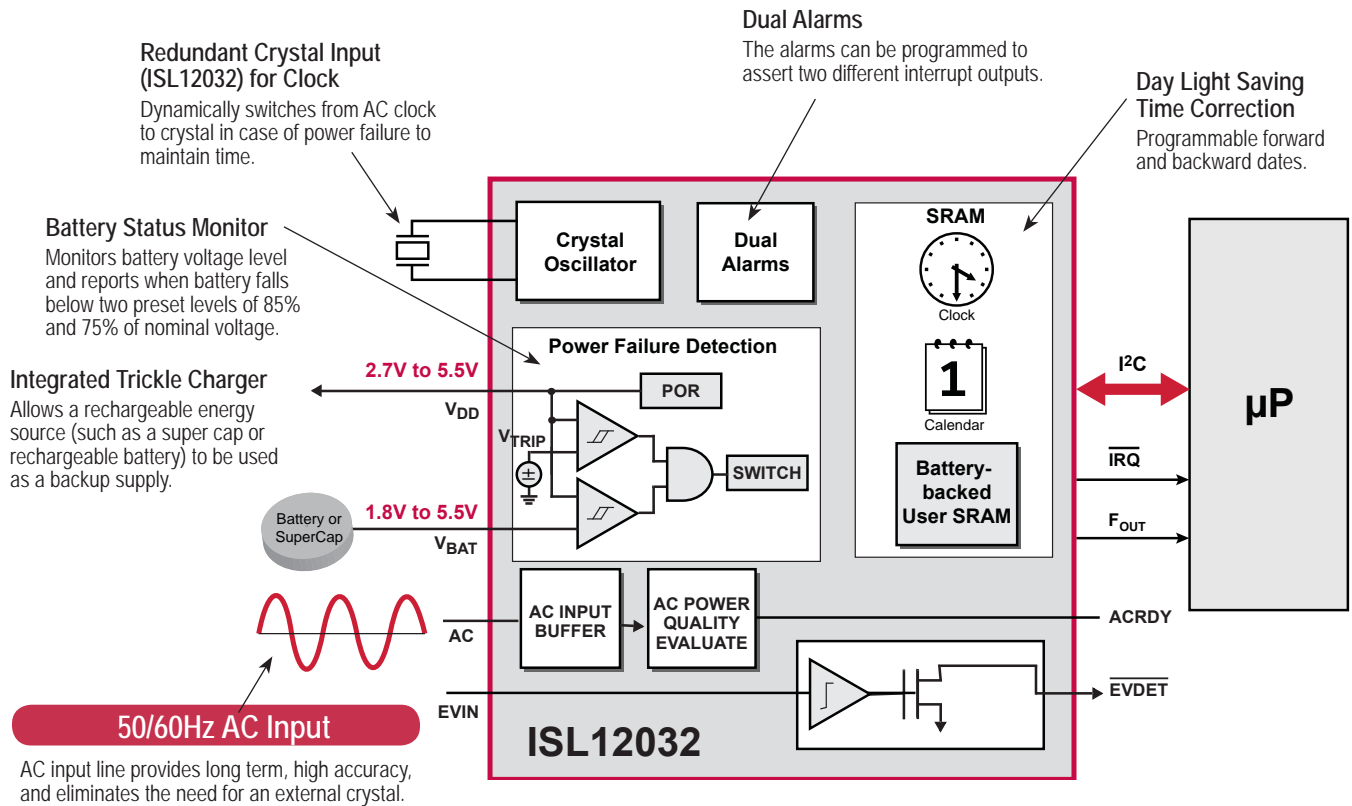
Part Number	Crystal Frequency Trimming	Alarms	CPU Supervisory Functions		Battery Backup	F_{OUT}	\overline{IRQ}	Output Structure	\overline{RESET}	Intg. Memory	Package
			POR	Watchdog Timer							
ISL12026	Y	2	N	N	Y	Shared Pin		CMOS	N	512x8-Bit EEPROM	8 Ld SOIC, 8 Ld TSSOP
ISL12027	Y	2	Y	Y	Y	-		CMOS	Y	512x8-Bit EEPROM	8 Ld SOIC, 8 Ld TSSOP
ISL12028	Y	2	Y	Y	Y	Shared Pin		CMOS	Y	512x8-Bit EEPROM	14 Ld SOIC, 8 Ld TSSOP
ISL12029	Y	2	Y	Y	Y	Shared Pin		Open Drain	Y	512x8-Bit EEPROM	14 Ld SOIC, 8 Ld TSSOP

Feature-Rich RTC with 50/60Hz AC Clock Provides Long-Term, High Accuracy



Utility Meter

The ISL12030, ISL12032 are feature-rich RTCs that use a 50/60Hz AC clock as primary input, which eliminates the need for an external crystal for applications where precision timing is very critical.



Feature-Rich RTC with 50/60 Cycle AC Input

V_{DD} = 2.7V to 5.5V, V_{BAT} = 1.8V to 5.5V (ISL12032), T_A = -40°C to +85°C

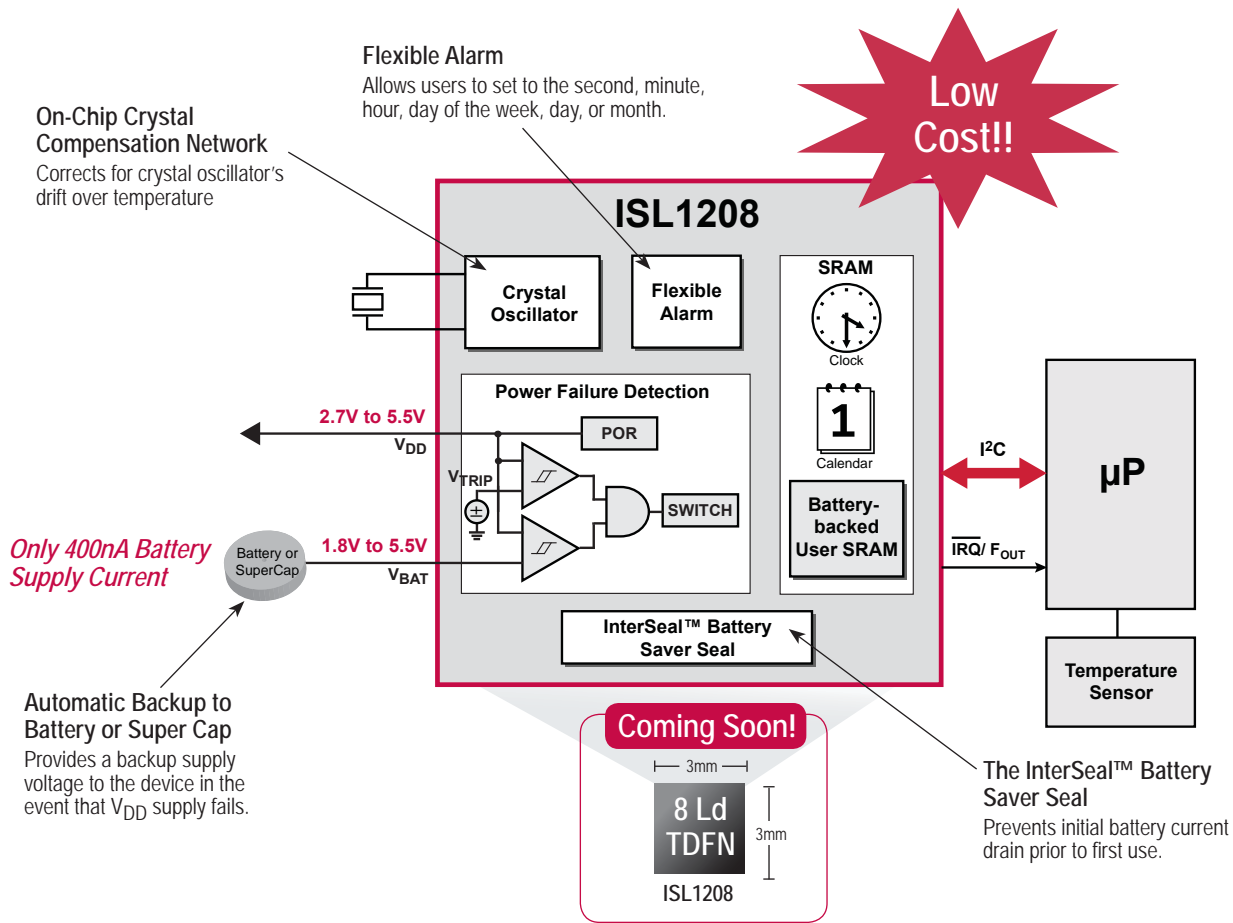
Part Number	I _{BAT} (nA)	Crystal Frequency Trimming	Selectable Frequency Output	Alarms	SRAM	Crystal Backup	Daylight Savings	Trickle Charger	Battery Reseal	Package
ISL12030	-	N	-	2	128 Bytes	N	Y	N	N	8 Ld SOIC
ISL12032	800	Y	7	2	128 Bytes	Y	Y	Y	Y	14 Ld TSSOP



Nano-Power, Low Cost, Small RTC Provides Significant PCB Real-Estate Savings

General Purpose / Handheld

ISL1208, ISL1218 and ISL1220 provide a complete set of leading features for consumer, medical, and industrial applications for designs with board space limitations and cost saving requirements.



Low Power RTC with Battery Backed SRAM

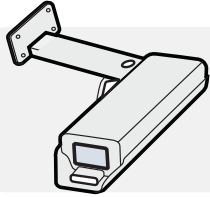
V_{DD} = 2.7V to 5.5V, V_{BAT} = 1.8V to 5.5V, T_A = -40°C to +85°C



Part Number	I _{BAT} (nA)	Crystal Frequency Trimming	Selectable Frequency Output	Alarms	SRAM	F _{OUT}	IRQ	Package
ISL1208	400	Y	15	1	2 Bytes	Shared Pin		8 Ld SOIC, 8 Ld MSOP, 8 Ld TDFN*
ISL1218	400	Y	15	1	8 Bytes	Shared Pin		8 Ld SO, 8 Ld MSOP
ISL1220	400	Y	15	1	8 Bytes	Dedicated Pin	Dedicated Pin	10 Ld MSOP

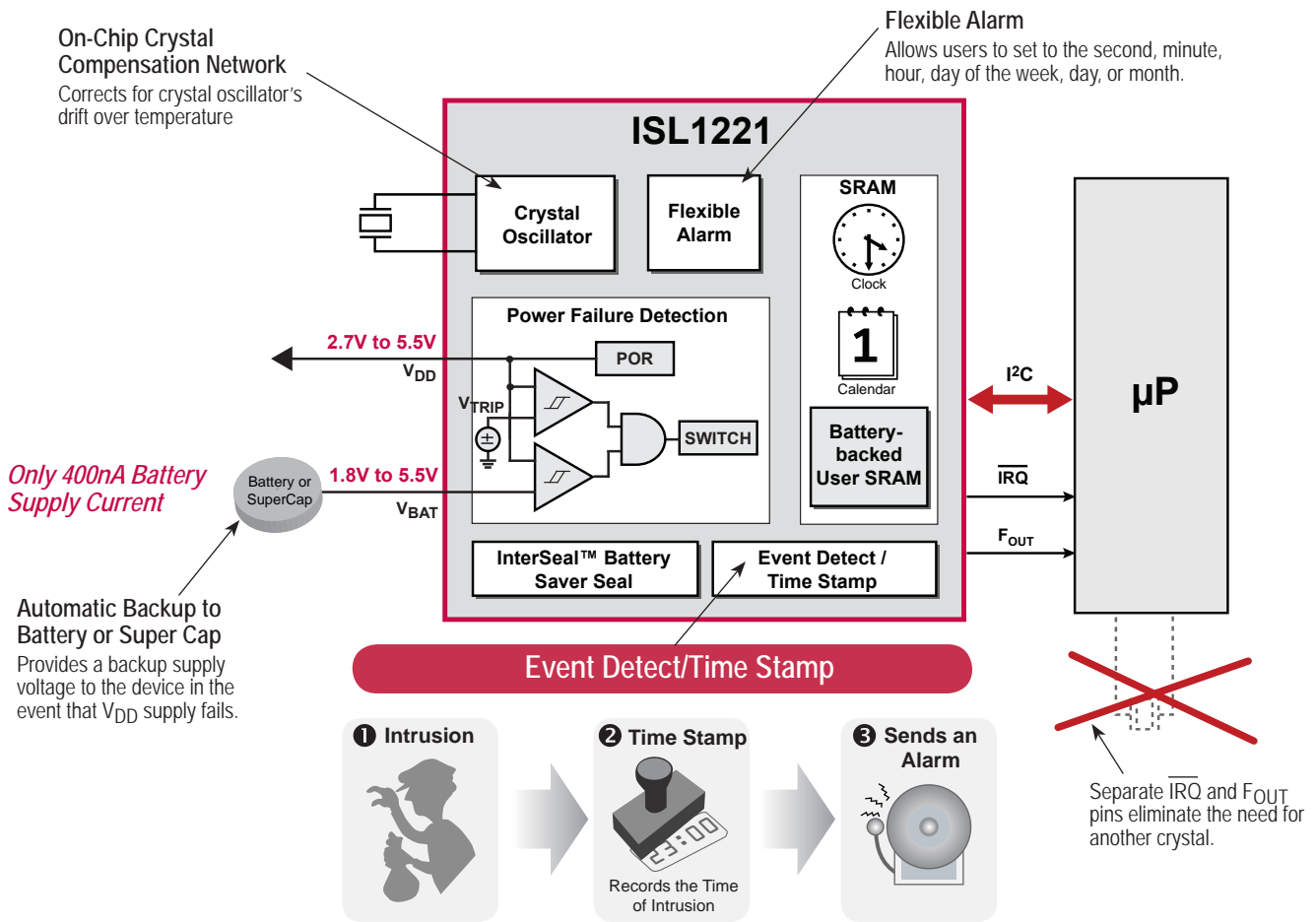
* Coming soon.

Nano-Power RTC with Integrated Event Detect and Time Stamp for Maximum Security



Security Applications

ISL1219 and ISL1221 nano-power RTCs with enhanced security functionality include Event Detect and Time Stamp features. They are suited for a variety of applications including security, warranty monitoring, data collection, and recording.



Low Power RTC with Battery Backed SRAM and Event Detection

$V_{DD} = 2.7V$ to $5.5V$, $V_{BAT} = 1.8V$ to $5.5V$, $T_A = -40^\circ C$ to $+85^\circ C$



Part Number	I_{BAT} (nA)	Crystal Frequency Trimming	Selectable Frequency Output	Alarms	SRAM	F_{OUT}	\overline{IRQ}	Event Detect	Time Stamp	Package
ISL1209	400	Y	15	1	2 Bytes	Shared Pin		Y	N	10 Ld MSOP
ISL1219	400	Y	15	1	2 Bytes	Shared Pin		Y	Y	10 Ld MSOP
ISL1221	400	Y	15	1	2 Bytes	Dedicated Pin	Dedicated Pin	Y	Y	10 Ld MSOP

* Coming soon.

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