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Cypress delivers high-performance, high-quality solutions at the heart of today's most advanced embedded systems, from automotive, industrial and networking platforms to highly interactive consumer and mobile devices. With a broad, differentiated product portfolio that includes NOR flash memories, F-RAM and SRAM, Traveo™ microcontrollers, the industry's only PSoC® programmable system-on-chip solutions, analog and PMIC Power Management ICs, CapSense® capacitive touch-sensing controllers, and Wireless BLE Bluetooth® Low-Energy and USB connectivity solutions, Cypress is committed to providing its customers worldwide with consistent innovation, best-in-class support and exceptional system value.

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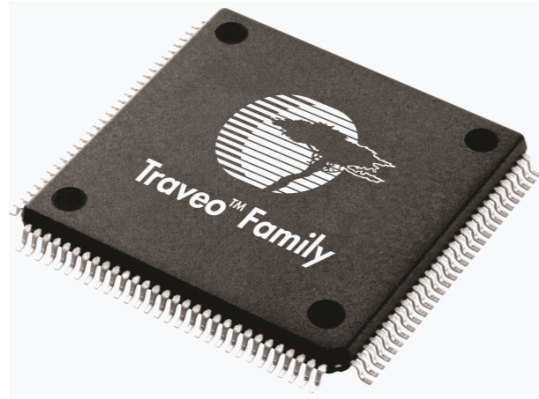
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Cypress Traveo Family

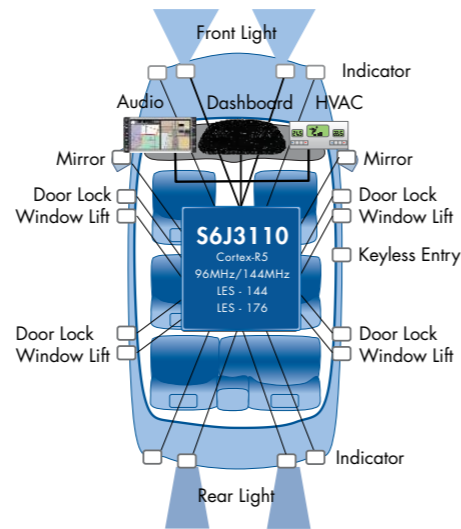
The Traveo family expands the company's automotive applications, scalability and high performance into one line-up and at the same time adds new features to fulfill the latest requirements of the automotive industry. Based on the powerful ARM® Cortex®-R5 and R5F core in single and dual core operations, it offers state-of-the-art real-time performance, safety and security features. The family supports the latest in-car networks and offers high-performance graphics engines optimized for a minimum memory footprint and embeds dedicated features to increase data security in the car.



Cypress Traveo S6J3110 Series

The Traveo S6J3110 family features a single ARM® Cortex®-R5 and operates at 144MHz. The S6J3110 family incorporates the high performance CAN FD interface for enhanced in-vehicle networking and is focused on various automotive applications including body control module (BCM), heating, ventilation and air conditioning (HVAC). In addition to the CAN FD interface operating at 5Mbps, the S6J3110 family comes with a maximum 4MB of flash memory to enable high-level program control and uses 55nm technology. It also features Secure Hardware Extension (SHE) for network security and improved performance for connected cars, as well as advanced partial wakeup for lowering power consumption.

Security function: In addition to conventional flash security, which protects data stored in the microcontroller, the S6J3110 series is equipped with SHE (specification ver 1.1). Key SHE management housed within the microcontroller is separated using hardware and an authentication function preventing data modification, theft and invalid access to the vehicle network.

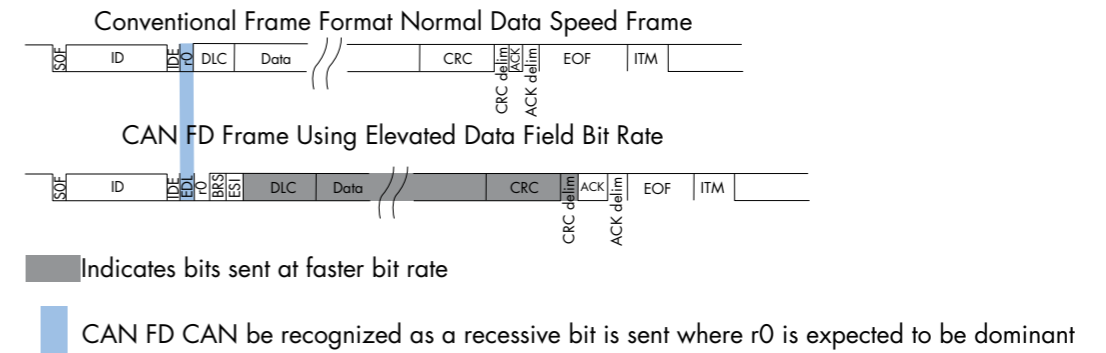


Spanion Traveo – S6J3110 Series Lineup

Products	Freq. MHz	Pow.V	Memory Type	FLASH (KB)	RAM (KB)	Backup RAM (KB)	PKG	Note		
S6J3118H	96	4.5 to 5.25	Main Flash + Work Flash	576 + 48	48	8	TEQFP144	12bit ADC 56ch (25ch + 31ch) CAN FD 1ch, Multi Function Serial 4ch, Base Timer 30ch, 32bit Free Run Timer 6ch, 32bit Input Capture 12ch, 32bit Output Compare 12ch, DMA 16ch SHE		
S6J3119H				832 + 48	64					
S6J311AH				1088 + 48	80					
S6J311BH	144			1600 + 112	128	64			TEQFP176	12bit ADC 64ch (32ch + 32ch) CAN FD 2ch, Multi Function Serial 22ch, Base Timer 30ch, 32bit Free Run Timer 6ch, 32bit Input Capture 12ch, 32bit Output Compare 12ch, DMA 16ch, SHE
S6J311CH				2112 + 112	192					
S6J311DH				3136 + 112	256					
S6J311EH				4160 + 112	320					
S6J311BJ				1600 + 112	128					
S6J311CJ				2112 + 112	192					
S6J311DJ				3136 + 112	256					
S6J311EJ	4160 + 112	320								

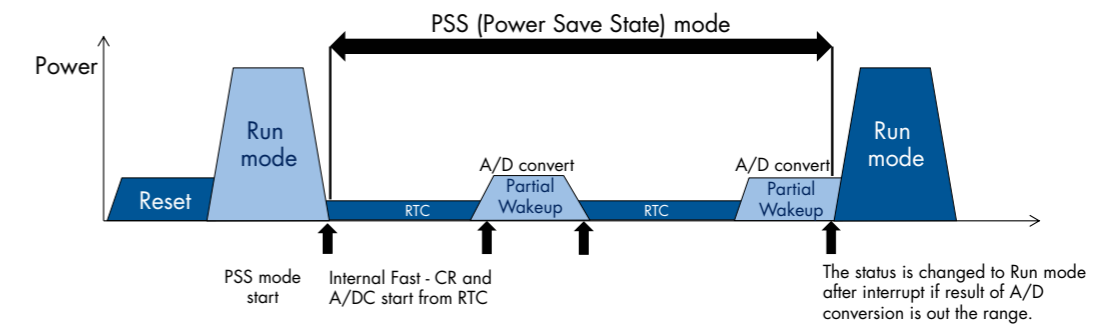
CAN FD (CAN with Flexible Data rate)

CAN FD is a cost effective alternative to FlexRay and designed to close the gap between CAN and FlexRay. CAN FD supports data-fields up to 64bytes and a data rate up to 5Mbps allowing for a much faster software download rate.



Partial Wakeup Function

Normally, when A/D conversion is performed from the low power-consumption mode, the CPU is interrupted and the system returns to normal operation. Afterwards, it is necessary to start the A/D converter from the CPU. However, when using partial wakeup, power except Real Time Clock (RTC) is cut. Once the RTC performs a specified count, the A/D converter is started and conversion begins without passing through the CPU. If conversion results are not within the scope of set values, it is possible to start the CPU through interruption. Partial wakeup makes it possible for lower power consumption even further when periodically checking for sensor malfunctions.



Cypress Traveo – Development Tools

PKG	IDE	ICE	Evaluation Board
TEQFP144	Green Hills Software [MULTI®]	Green Hills Software [Green Hills Probe™]	S6T3J300112A144A2 (with S6J311EH)
TEQFP176	IAR Systems [EWARM]	IAR Systems [I-Jet™]/[I-Trace™]	S6T3J300111A176A2 (with S6J311EJ)



Evaluation Board (S6T3J300111A176A2)