**Traveo™ Family S6J33xx Series Solution Example:** Instrument Cluster Classic Segment

### Traveo S6J33xx Series Value

**Design Challenges**
- CAN FD\(^1\) communication
- Secure in-car network and authentication
- High-quality sound
- High-speed external memory interface

**Traveo Solution**
- Supports 2 channels CAN FD\(^1\) that boost the maximum payload data rate of at least 8 Mbps\(^2\) and the payload per message from 8 bytes to 64 bytes.
- Implements Secure Hardware Extension (SHE) and security software.
- Implements waveform generator, PCM\(^3\), PWM\(^4\) and mixer.
- Supports HyperBus™\(^5\)

### Suggested Collateral

**Datasheet:** S6J331x Series  
**Hardware Manual:** S6J3300 Series

### Features

- Stepper motor drivers
- LCD segment drivers and LCD controller
- Interfaces to automotive networks - Ethernet, CAN FD, LIN
- Up to 4MB embedded flash

### Block Diagram

- Traveo™ Classic MCU
- Auto PMIC\(^6\) w/ Load Dump and Crank Protection
- HyperFlash™\(^7\)
- Serial SRAM
- Nonvolatile Memory
- Battery
- Speaker
- Analog Sensors
- Digital Sensors
- Liquid Crystal Display
- Mechanical Meters
- CAN FD
- LIN
- Open Alliance

### Availability

- **Juno**
  - Sampling: Now (since Q4 2015)
  - Production: Now (since Q1 2017)

- **Artemis**
  - Sampling: Now (since Q2 2016)
  - Production: Now (since Q1 2017)

\(^1\) Controller Area Network Flexible Data rate  
\(^2\) Maximum defined by external components only  
\(^3\) Pulse Code Modulation  
\(^4\) Pulse Width Modulation  
\(^5\) A high-bandwidth, 12-signal interface that transfers information over 8 I/O signals at Double Data Rate, delivering up to 333 MBps

\(^6\) Power Management IC  
\(^7\) A Cypress NOR Flash Memory product family that offers higher bandwidth than Quad SPI NOR Flash Memory with one-third the number of pins of parallel NOR Flash Memory