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#### **Continuity of Specifications**

There is no change to this document as a result of offering the device as a Cypress product. Any changes that have been made are the result of normal document improvements and are noted in the document history page, where supported. Future revisions will occur when appropriate, and changes will be noted in a document history page.

#### **Continuity of Ordering Part Numbers**

Cypress continues to support existing part numbers. To order these products, please use only the Ordering Part Numbers listed in this document.

#### **For More Information**

Please contact your local sales office for additional information about Cypress products and solutions.

#### **About Cypress**

Cypress (NASDAQ: CY) 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.

# S6J3200 Series

## 32-bit Microcontroller with Graphics Traveo™ MCU Family



### Fact Sheet

The Spansion® Traveo™ MCU family S6J3200 features 32-bit RISC microcontrollers with an ARM® Cortex®- R5 core and operates at 240MHz. This microcontroller comes with highly-efficient 2D/3D graphic engines with advanced feature-sets for memory savings, safety and high image quality to help manufacturers take advantage of the lower overall system costs while meeting the increasingly high levels of performance and quality that industrial, consumer and automotive applications demand. In addition, this microcontroller offers support for Spansion HyperBus™ memory interface, a breakthrough that dramatically improves read performance while reducing the number of pins. This microcontroller comes with Ethernet AVB, CAN-FD, a high-speed communication protocol compatible with the conventional CAN, and SHE(Secure Hardware Extension) as security function.

## 1. FEATURES

### ■ System

- 32bit ARM Cortex-R5F CPU core at up to 240MHz
- General purpose I/O port : up to 120
- 12-bit A/D converter : up to 50 channels
- External interrupt : up to 16 channels
- Base timer : up to 24 channels
- 32-bit free-run timer : up to 12 channels
- Built-in CR oscillator
- Real-time clock
- Input capture unit : up to 24 channels
- Output compare unit : up to 24 channels
- DMA controller : 16 channels
- Stepper motor controller (SMC): 6 Units
- JTAG debug interface

### ■ Graphics and Display

- 2D graphic engine
- 3D graphic engine (optional)
- Timing generator - TCON
- TTL/RSDS
- FPD-Link – LVDS (optional)
- Video capture
- Communication: Ethernet AVB MAC
- CAN-FD : up to 4 channels
- Multi-function serial interface : up to 12 channels, selectable protocol: UART, CSIO, LIN and I<sup>2</sup>C
- MediaLB : up to 1 channel

### ■ Memory

- Spansion HyperBus™ Memory interface
- Dual quad double data rate SPI Flash Interface

### ■ Multimedia

- I2S input/output: up to 2 Units
- PCM to PWM output unit
- Sound mixer (optional): 1 unit x 10 inputs
- Stereo audio DAC (optional)

### ■ Security and Safety

- Secure Hardware Extension - SHE
- Safety features, such as MPU, TPU, ECC and others
- CRC generator: 1 channel
- Watchdog timer with window function
- Low voltage detector
- Clock supervisor for all source clocks

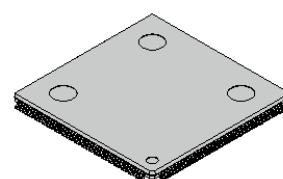
## 2. PRODUCT LINEUP

Parameter	S6J323CxSA	S6J324CxSA	S6J325CxSA	S6J326CxSA
Main Flash (Byte)	2112K	2112K	2112K	2112K
RAM (Byte)	256K	256K	256K	256K
Video RAM (Byte)	2048K	2048K	2048K	2048K
Graphic Engines	2D	2D	2D/3D	2D/3D
Sound Mixer Audio DAC	-	1 unit	-	1 unit
FPD-Link	-	-	-	1ch

## 3. ORDERING INFORMATION

Part number	Package
S6J324CKSASEx0000	Plastic · TEQFP(0.5mm pitch), 208pin
S6J326CKSASEx0000	
S6J324CLSASEx0000	Plastic · TEQFP(0.4mm pitch), 216pin
S6J326CLSASEx0000	

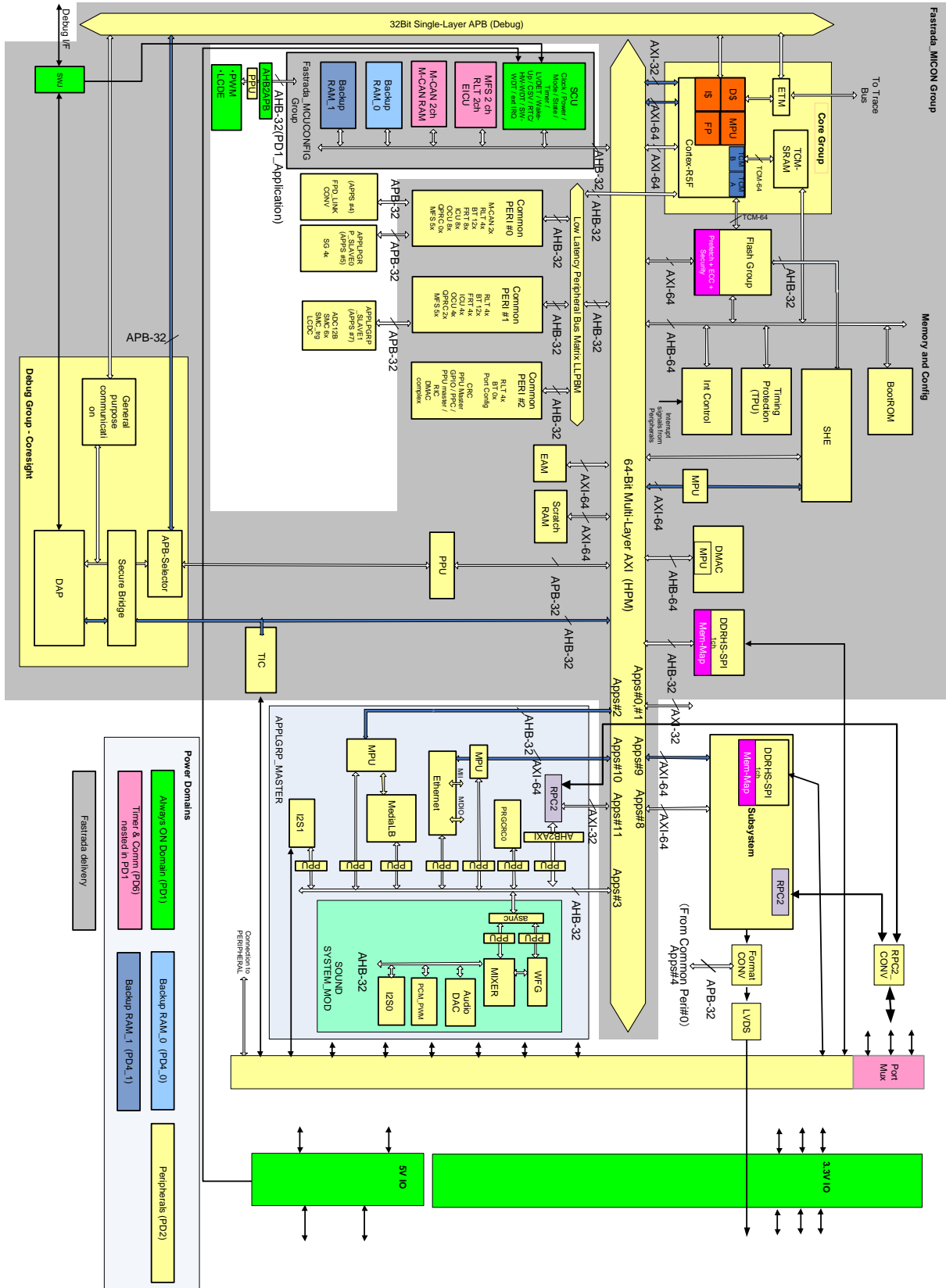
## 4. PACKAGE EXAMPLE OF REFERENCE



Plastic TEQFP-208



## 5. BLOCK DIAGRAM



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