8-, 16- and 32-bit Microcontrollers/Microprocessors

TWR-S08UNIV*

Universal Tower module for existing S08 and RS08 devices

Overview

The TWR-S08UNIV provides a Freescale Tower System development solution for pre-existing S08 and RS08 devices, initially including the RS08KA family, the S08AC, QD, QE, QG and SH families. This combination of Tower module and attachable daughter cards provides an easy way to switch between different S08 and RS08 MCUs without purchasing the same development board over and over again. The TWR-S08UNIV also brings access to the growing Tower ecosystem to a set of MCUs previously supported only by traditional demo boards.

TWR-S08UNIV

TWR-S08DC-SH8

TWR-S08DC-QE64

TWR-RS08DC-QD4

TWR-RS08DC-KA8

TWR-S08DC-AC60

TWR-S08DC-QG8

Features

- Tower system module is usable in either stand-alone mode or connected to a Tower System
- Swappable MCU daughter cards that can be plugged into the main module (TWR-S08UNIV). Initial offering:
  - TWR-RS08DC-KA8
  - TWR-S08DC-AC60
  - TWR-S08DC-QD4
  - TWR-S08DC-QE64
  - TWR-S08DC-QG8
  - TWR-S08DC-SH8

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- Each daughter card features a unique ID associated with the MCU on the daughter card allowing automatic identification by development tools
- Each 5V MCU daughter card with option to select between 3V and 5V setting
- All daughter cards, regardless of the 3/5V switch, control the system voltage on the TWR-S08UNIV module board
- Software included to enable engineers to bring up sample CodeWarrior projects to exercise many on-chip and on-board peripherals, including:
  - Sample code for the TPM, A/D, internal clock set-up
  - Sample code for different serial protocols, I^2C, SPI, UART and sensor TWRPI initialization

*The TWR-S08UNIV should always be ordered in combination with one or more of the plug-in daughter cards (TWR-(R)S08DC-xxxx). The TWR-S08UNIV-DEMO is also available, providing the TWR-S08UNIV main module along with all six initial daughter cards.

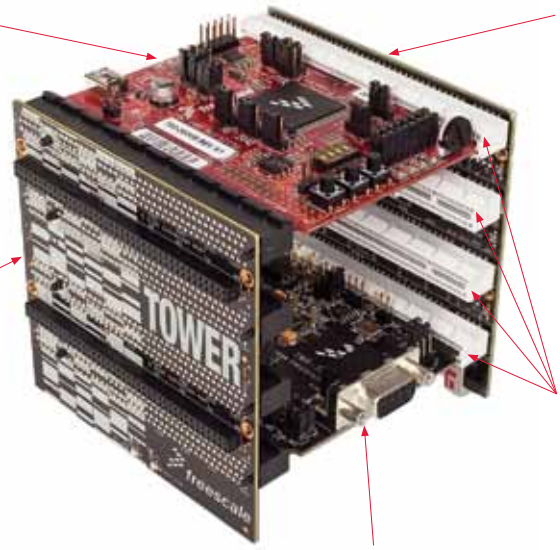
The Freescale Tower System

Controller Module

- Tower MCU/MPU board
- Works stand-alone or in Tower System
- Features integrated debugging interface for easy programming and run control via standard USB cable

Secondary Elevator

- Additional and secondary serial and expansion bus signals
- Standardized signal assignments
- Mounting holes and expansion connectors for side-mounting peripheral boards



Primary Elevator

- Common serial and expansion bus signals
- Two 2x80 connectors on backside for easy signal access and side-mounting board (LCD module)
- Power regulation circuitry
- Standardized signal assignments
- Mounting holes

Board Connectors

- Four card-edge connectors
- Uses PCI Express® connectors (x16, 90 mm/ 3.5" long, 164 pins)

Size

- Tower is approx. 3.5" H x 3.5" W x 3.5" D when fully assembled

Peripheral Module

- Examples include serial interface module, memory expansion module and Wi-Fi®

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Tower Geeks Online Community

TowerGeeks.org is an online design engineer community that allows members to interact, develop designs and share ideas. Offering a direct path to explore and interact with other engineers designing with the Tower System, **TowerGeeks.org** is a great way to discuss your projects, post videos of your progress, ask questions through the forum and upload software. With updates through **Twitter** and **Facebook**, it's easy to get involved.

Learn More: For more information about the Freescale Tower System, please visit **freescale.com/Tower**.

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