![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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## Contact us

# Quick Start Guide

**TWR-MEM-PISMO**
PISMO2 Memory Module



TOWER SYSTEM

# Get to Know the TWR-MEM-PISMO

**Primary Connector**

**SPI Module Header**

**Spansion 1 Gb GL-S Flash PISMO2 Module**

P2IC
29GL01GS10TFI010

**PISMO2 Socket**

freescale™
semiconductor

**Voltage I/O Switches**

**LEDs**

**Secondary Connector**

**User Mode Switches**

SCH-27289 REV A
700-27289 REV X1
© 2011 FREESCALE
TWR-MEM-PISMO

S25FL129P_01

**Spansion 128 MB SPI Multi-I/O Flash Module**
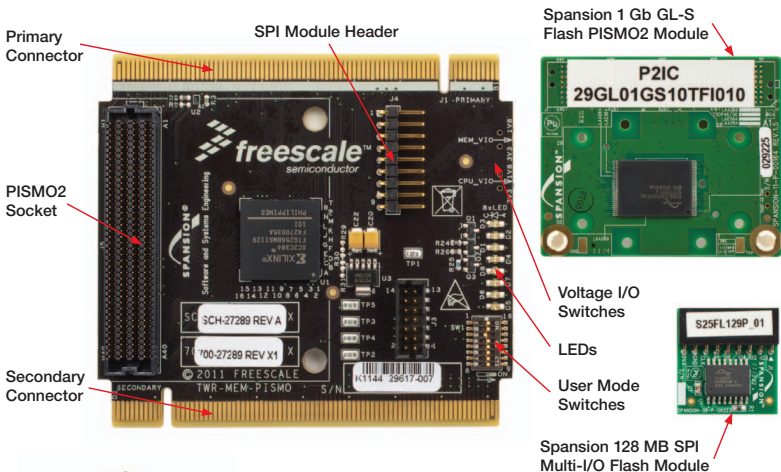
## TWR-MEM-PISMO
## Freescale Tower System

The TWR-MEM-PISMO module is part of the Freescale Tower System, a modular development platform that enables rapid prototyping and tool re-use through reconfigurable hardware. Take your design to the next level and begin prototyping with the Tower System today.
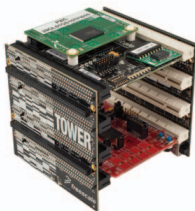
# TWR-MEM-PISMO Features

- Expandable memory platform compatible with the Freescale Tower System

- Included Spansion 1 Gb GL-S MirrorBit Eclipse flash PISMO2 module

- Included Spansion 128 MB MirrorBit SPI multi-I/O flash module

- CLPD supports a variety of FlexBus and LPC bus interfaces

- PISMO2 memory socket supporting:
  - 16-bit ADM memory
  - 6-bit ADP memory
  - Burst NOR memory
  - 4/8-bit eMMC

- Selectable I/O voltage for the PISMO2 interface (1.8 or 3.3 volt)

- MIO SPI connector supporting Spansion multi-I/O SPI

# Step-by-Step Installation Instructions

**1** Set the "Working Mode" user switch (SW1) and the "VIO" switches (MEM_VIO & CPU_VIO) to the correct configuration for your Tower System controller module. Refer to the jumper settings table for additional details.

**2** Attach the included Spansion 1 Gb GL-S MirrorBit Eclipse flash PISMO2 module to the PISMO2 socket on the TWR-MEM-PISMO. Ensure that the keyed connector is securely connected.

**3** Attach the included Spansion 128 MB MirrorBit SPI multi-I/O flash module to the 9-pin header. Ensure that the Pin 1 indicator (triangle) on the SPI module is oriented towards Pin 1 of the 9-pin connector (J4).

**4** Assemble your Tower System, including at minimum a Tower System controller module and the TWR-MEM-PISMO module with the attached memory modules.

**5** Visit **freescale.com/TowerPISMO** for example projects for select Tower System controller modules.

# TWR-MEM-PISMO Jumper Options

The following is a list of all jumper options. The default installed jumper settings are shown in white text within the black boxes.

| Switch | Option | Setting | Description |
|--------|--------|---------|-------------|
| SW1 - Dip 1 | Memory Interface Type | On | FlexBus External Bus Interface |
| | | Off | LPC External Bus Interface |
| SW1 - Dip 2 | Address/ Data Muxing | On | Muxed: Data Line Is Shared with Address Line |
| | | Off | Non-Muxed: Data Lines Are Dedicated |
| SW1 - Dip 3 | Data Width | On | 8-bit Data |
| | | Off | 16-bit Data |
| SW1 - Dip 4 | TWR-ELEV Usage | On | Primary Only |
| | | Off | Primary and Secondary* |
| SW1 - Dip 5 | For Future Use | On | |
| | | Off | |
| SW1 - Dip 6 | For Future Use | On | |
| | | Off | |

*Continued...*

\* Not all Tower System Controller modules utilize the external bus interface on the secondary side, please refer to the respective Tower System Controller documentation to verify if this setting is applicable.

# Jumper Options (continued)

The following is a list of all jumper options. The default installed jumper settings are shown in white text within the black boxes.

| Switch | Option | Setting | Description |
|--------|--------|---------|-------------|
| SW1 - Dip 7 | For Future Use | On | |
| | | Off | |
| SW1 - Dip 8 | For Future Use | On | |
| | | Off | |
| SW2 | CPU Voltage I/O | 3V3 | CPLD Interfaces the Controller at 3.3 volts |
| | | 1V8 | CPLD Interfaces the Controller at 1.8 volts |
| SW3 | MEM Voltage I/O | 3V3 | CPLD Interfaces the PISMO2 Memory at 3.3 volts |
| | | 1V8 | CPLD Interfaces the PISMO2 Memory at 3.3 volts |

* Not all Tower System Controller modules utilize the external bus interface on the secondary side, please refer to the respective Tower System Controller documentation to verify if this setting is applicable.

# Example Configuration

The following is a list of example settings for a subset of the supported Tower System Controller Modules.

| Controller Module | SW1 Setting (0-On, 1-Off) 1-2-3-4-5-6-7-8 | Description |
|---|---|---|
| TWR-K60N512 | 0-1-0-0-0-0-0-0 | 8-bit Non-Muxed FlexBus (Primary Side Only) |
| | 0-0-1-0-0-0-0-0 | 16-bit Muxed Flexbus (Primary Side Only) |
| TWR-MCF5225X | 0-1-0-0-0-0-0-0 | 8-bit Non-Muxed FlexBus (Primary Side Only) |
| | 0-0-1-0-0-0-0-0 | 16-bit Muxed Flexbus (Primary Side Only) |
| TWR-MCF5441X | 0-1-0-1-0-0-0-0 | 8-bit Non-Muxed FlexBus (Primary+Secondary) |
| | 0-0-1-1-0-0-0-0 | 16-bit Muxed Flexbus (Primary+Secondary) |
| TWR-MPC5125 | 1-1-0-1-0-0-0-0 | 8-bit Non-Muxed LPC (Primary+Secondary) |
| | 1-0-1-1-0-0-0-0 | 16-bit Muxed LPC (Primary+Secondary) |
| | 1-1-1-1-0-0-0-0 | 16-bit Muxed LPC (Primary+Secondary)* |

\* In this mode the TWR-MPC5125 is limited to 32MB address space

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Visit **freescale.com/TowerPISMO** for information on the TWR-MEM-PISMO module, including:

- User manual
- Schematics
- Example application
- CPLD code

## Support

Visit **freescale.com/support** for a list of phone numbers within your region.

## Warranty

Visit **freescale.com/warranty** for complete warranty information.

**For more information, visit freescale.com/Tower**

**Join the online Tower community at towergeeks.org**