



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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



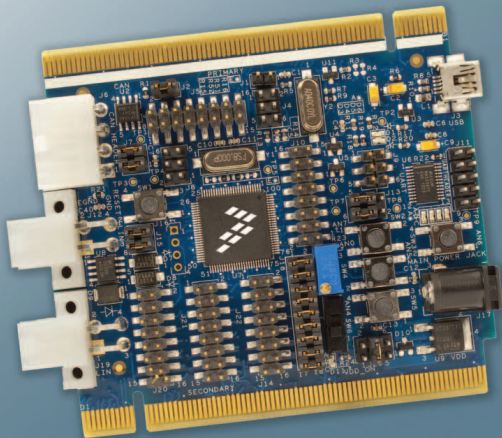
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Quick Start Guide

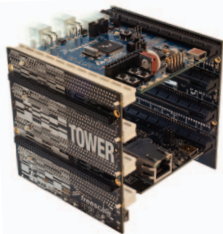
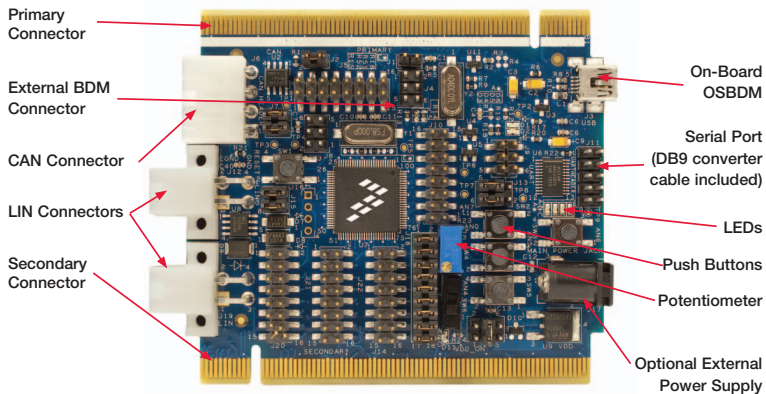
TWR-S12G240

Scalable Platform for
Automotive Applications



TOWER SYSTEM

Get to Know the TWR-S12G240



TWR-S12G240 Freescale Tower System

The TWR-S12G240 module is a single board computer as well as part of the Freescale Tower System, a modular development platform that enables rapid prototyping and tool re-use through reconfigurable hardware. Elevate your design to the next level and begin constructing your Tower System today.

TWR-S12G240 Features

- S12G240 series microcontroller (100-pin LQFP)
- On-board JTAG connection via open source OSBDM circuit using the MC9S08JM60 microcontroller
 - See pemicro.com/osbdm for source code
- High-speed CAN interface
- LIN interface
- Potentiometer with LP filter
- LED indicators
- RS-232 serial communication interface
- Support for USB Multilink Interface BDM

Step-by-Step Installation Instructions

In this quick start guide, you will learn how to set up the TWR-S12G240 board and run the default exercise.

1 Install Software and Tools

Install CodeWarrior Development Studio for S12 V5.1 or later

A 30-day evaluation license of CodeWarrior is included on the DVD for your convenience.

For updates, please visit freescale.com/TWR-S12G240.

2 Connect the USB Cable

Connect one end of the USB cable to the PC and the other end to the mini-B connector on the TWR-S12G240 board. Allow the PC to automatically configure the USB drivers if needed.

3 Using the Example Project

The pre-loaded example project utilizes the TWR-S12G240's potentiometer, push button switches and LEDs. Once the board is plugged in you can adjust the potentiometer and the bank of four LEDs should illuminate/de-illuminate in response. Each LED will toggle when the corresponding push button is pressed.

4 Learn More About the S12G240

Read the release notes and documentation on the DVD and at freescale.com/S12G240.

- The Processor Expert graphical initialization software included in your CodeWarrior installation will help reduce your time to market
- CodeWarrior for S12 with examples

TWR-S12G240 Jumper Options

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

Jumper	Option	Setting	Description
J1	USB to BDM Interface	1-2	Drives IRQ/TPMCLK to ground
J2	CAN Enable	1-2	Enables CAN
J7	CANH - L	1-2	SPLIT termination to CAN-L line
		3-4	SPLIT termination to CAN-H line
J13	UART/LIN TRANSCEIVER	1-3	Connects PS1/TXD0 PS0 to TXD_LIN of LIN tranceiver
		3-5	Connects PS1/TXD0 PS0 to T1in of RS-232 tranceiver
		2-4	Connects PS0/RXD0 PS1 to RXD_LIN pf LIN tranceiver
		4-6	Connects PS0/RXD0 PS1 to R1 out of RS-232 tranceiver
J15	LIN INTERFACE	1-2	Drives LIN V+ to J12 and J19 pin 3 plugs. Supply to other nodes
		3-4	LIN tranceiver set as Master node

(continued from previous page)

Jumper	Option	Setting	Description
J18	USER SWs and LED Selection	1-2	Connect PAD4 pin to SW5
		3-4	Connect PAD5 pin to SW4
		5-6	Connect PAD6 pin to SW3
		7-8	Connect PAD7 pin to SW2
		9-10	Connect PAD0 to R23 potentiometer
		11-12	Connect PT4 pin to D3 LED
		13-14	Connect PT5 pin to D4 LED
		15-16	Connect PT6 pin to D5 LED
		17-18	Connect PT7 pin to D6 LED
J23	POWER Selection	1-2	Selects the board to be powered from the 3.3V elevator card rail
		3-4	Selects the board to be powered from the 5V USB connector
		5-6	External source selected as power source

Visit freescale.com/TWR-S12G240 for information on the TWR-S12G240, including:

- TWR-S12G240 quick start guide
- TWR-S12G240 board schematics

For more information, visit freescale.com/Tower

Join the online Tower community at towergeeks.org

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