ColdFire MCF51AG

Appliance and industrial MCUs

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Get to Know the TWR-MCF51AG

Primary Connector

Accelerometer

Debug Connector for MCF51AG128

MCF51AG128

Capacitive Touch Pads

Potentiometer

J12, J13 RS232 Router

LEDs1 to 4

Secondary Connector

OSBDM and Power

DIP Switch
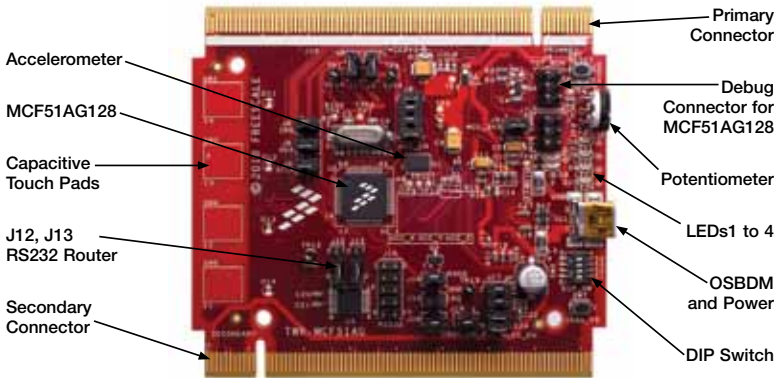
TWR-MCF51AG-KIT
Freescale Tower System

The TWR-MCF51AG 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 constructing your Tower System today.

Step-by-Step Installation Instructions

In this Quick Start Guide, you will learn how to set up the TWR-MCF51AG module and run the default demonstration.

STEP 1 **Install Software and Tools**

- Install CodeWarrior Development Studio for Microcontrollers v6.3 (Evaluation version)
- Install CodeWarrior Development Studio for Microcontrollers Service Pack V6.3.1 (CWMCUV631.exe)
- Install Service Pack for MCF51AG128

Install in the order listed. These programs are included on the DVD. Look under the development tools tab in your DVD. For updates, please visit **freescale.com**.

STEP 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-MCF51AG module. Allow the PC to automatically configure the USB drivers if needed.

STEP 3 **Run Quick Start Application**

After the board is powered on in Step 2, the demo code in the MCF51AG128 will begin execution. The LEDs (1–4) will illuminate in sequence.

To run more demonstrations with the TWR-MCF51AG or TWR-MCF51AG-KIT, follow the instructions in the TWR-MCF51AG-LAB document.

The following is a list of the default jumper settings on the TWR-MCF51AG module.

Jumper	Default Setting	Description
J6	1–2	MPR121 interrupt output, connect to PTH5
J8	1–2	SDA line of MPR121 I²C interface, connect to AG128 IIC
J9	1–2	SCL line of MPR121 I²C interface, connect to AG128 IIC
J1	1–2	VREFH, short to VDDA
J2	1–2	VREFL, short to GND
J4	ALL ON (1–2, 3–4, 5–6, 7–8)	The accelerometer control and status signal, connect to GPIO of AG128
J5	1–2	AG128 power supply, can be used to measure the current consumed by AG128
J12	2–3	RXD of SCI 1, connect to elevator (default) or on-board RS232 port
J13	2–3	TXD of SCI1, connect to elevator (default) or on-board RS232 port
J14	1–2	TXD of SCI2, connect to the serial port of OSBDM CPU
J16	Open	OSBDM IRQ pin (used for upgrade the OSBDM bootloader)
J18	1–2	RXD of SCI2, connect to the serial port of OSBDM CPU
J19	1–2	Interrupt input of AG128
J17	ALL ON (1–2, 3–4, 5–6, 7–8)	LEDs 1 to 4 selection
J11	--	OSBDM Mini-USB connector
J15	--	RS232 port connector
J3	--	BDM port for MCF51AG
J7	--	BDM port for MC9S08JM60 (Open Source BDM)
DIP-SW	ALL OFF (S1, S2, S3, S4)	Switchers, connect to the GPIO port of AG128

To learn more about the TWR-MCF51AG128-KIT and other Freescale appliance products, please visit **freescale.com/MCF51AG**, **freescale.com/appliance** or **freescale.com/Tower**.