



32-Bit Controllers

Class Room Training – CT507

MPC563xM Family of Powertrain Microcontrollers Workshop

Target Applications: 1-4 Cylinder gasoline direct injection engines, entry-level diesel engines and entry level transmissions. To learn more: Visit www.freescale.com and type document number MPC563XMFS in the Key Word Search, located in the upper right hand corner.

Course Description: A 3-day workshop that covers e200 Power Architecture core, memory protection, cross-bar switch and all internal/external buses. Also included are details of all on-chip peripherals, as well as demo software examples and optional hands-on labs.

After completing the workshop, the participant will understand the basic concepts of the Power Architecture and all major functional blocks of the device. With hands-on examples and development tools, the participant will be able to program on-chip peripherals and optimize system design.

Who Should Attend: Software and system engineers who need to come up to speed quickly on how to design with this architecture.

Participants will be provided: A hard copy of the workshop notes, lab book and textbook. A CDROM of all the lab experiments and demo version of the development tools is also provided.

Prerequisite: Knowledge/experience of some microprocessor/microcontroller is necessary.

Course Fees: \$1,000 USD per participant

Course Date and Location: August 12, 2008, Novi, Michigan

Course Enrollment

Open Enrollment: To view a list of open enrollment workshops for the MPC563xM Family:

1. Navigate to:
http://www.freescale.com/webapp/sps/site/training_information.jsp?code=CT_507_MPC563xM_FAMILY
2. Select **View Scheduled Events** Button (if button is missing, no classes are currently offered.)
3. Select the **Register Link** for the class you wish to attend.

On-Site Enrollment: As with any of our Technical Training courses, the MPC563xM Family workshop can be taught at your facility and customized to fit your needs. The cost of a customer on-site class is dependent on the customer's training requirements.

Contact: techtraining@freescale.com for more information.

MPC563xM Family Workshop Agenda

Day 1	Day 2	Day 3
<p>MPC563xM Overview</p> <ul style="list-style-type: none">• Main Features and Road Map• MPC5500 and MPC5600 Families Differences <p>Power Architecture Core</p> <ul style="list-style-type: none">• Programming Model• Classic PowerPC Instruction Set Basics (<i>optional</i>)• New Instructions on e500z3• Interrupts & Interrupt Controller• Core Timers• Memory Management Unit (MMU)	<p>System Initialization</p> <ul style="list-style-type: none">• Device Configuration• Low Power Modes• Software Initialization Checklist <p>Peripherals and Flash</p> <ul style="list-style-type: none">• Enhanced DMA (eDMA)• Modular I/O System (eMIOS)• Enhanced Timer Processor Unit 2 (eTPU2)	<p>Peripherals and Flash continued...</p> <ul style="list-style-type: none">• Queued A/D Converter (eQADC)• Enhanced Serial Communication Interface (eSCI) and LIN Bus• DSPI• FlexCAN <p>System Memory</p> <ul style="list-style-type: none">• Error Correction Code• SRAM• Flash <p>Tools</p> <ul style="list-style-type: none">• Nexus Summary• Calibration

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