Class Room Training – CT602

i.MX31 Multimedia Processors

Dates and Locations: **October 14 - 17, San Jose, CA**
November 11 - 17, Boston, MA

Target Applications: Wireless device running computationally intensive multimedia applications such as portable media players and portable navigation devices. Target devices also include feature rich smartphones, digital video recorders, digital cameras, mobile gaming consoles, mobile multimedia players and many other mobile wireless applications. To learn more: Visit www.freescale.com and type document number MC9328MX31FS in the Key Word Search, located in the upper right hand corner.

Course Description: The i.MX31/i.MX31L is a 4-day class covering the main features of the i.MX31 architecture, operation and programming.

The class provides an overview of the ARM1136^{TM} Core, including the programming model, level 1 and level 2 caches, cross bar switch, and Memory Management Unit (MMU). The course also covers many of the i.MX31 I/O peripherals including; GPIO, IOMUX, External Memory Interface and PCMCIA. Training modules cover Serial I/O including USB, Timers including Watchdog, ATA, keypad and the Image Processing Unit (IPU). There are program examples included in the discussions of the various topics. Basic i.MX31 startup using the i.MX31 PDK board is included.

After completing the class, customers will understand the basic concepts of ARM1136^{TM} Core and all the major functional blocks of the device to begin their multimedia application design.

Prerequisite: Due to the high degree of functionality and integration of this device, the student is encouraged to gain some familiarity by reviewing current Freescale documentation for this product. Introductory level web-based training materials are available at www.freescale.com/training. Search on i.MX31 for a list of available overview materials.

Participants will be provided: A hard copy of the class notes and related materials on a CDROM.

Course Fees: $1,200 USD per participant.

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Course Enrollment

Open Enrollment: To view a list of open enrollment workshops for the i.MX31 Family:

1. Navigate to: http://www.freescale.com/webapp/sps/site/training_information.jsp?code=CT_602_IMX31
2. Select **View Scheduled Events** Button (if button is missing, no classes are currently offered.)
3. Select the **Register Link** for the class you want to attend.

On-Site Enrollment: As with any of our Technical Training courses, the i.MX31 family course 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.

i.MX31 Course Agenda

Day 1	Day 2	Day 3	Day 4
Introduction Arm Platform Overview ARM Core • Overview • Program Model • Instruction Set • Co-Processors • Memory Management Unit • Level 1 Cache • Interrupt Controller • System Clock Generation	GPIO IOMUX EMI • SRAM • WEIM • NAND FLASH • PCMCIA/CF Software Startup	SDMA Keypad i.MX31 Timers • Real Time Clock (RTC) • PWM • General Purpose Timer (GPT) • Enhanced Periodic Interrupt Timer (EPIT) • Watchdog i.MX31 Serial Interface • UART • CSPI • Inter-Integrated Circuit Module (IIC) • USB	IPU GPU Power Management PDK Startup

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