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# Freescale - DEMO9S08QE32 - MC9S08QE32 Demonstration Board

### **Product Overview:**

The DEMO9S08QE32 is а low-cost development system designed for demonstrating, evaluating, and debugging the Freescale MC9S08QE32 microcontroller. P&E's Embedded Multilink circuitry on the DEMO9S08QE32 board allows the processor on the DEMO9S08QE32 to be debugged and programmed via USB from the PC. In addition, the demo board can be powered using the USB bus.



### Kit Contents:

The DEMO9S08QE32 package includes the following items:

- DEMOQE Base Board with a DC9S08QE32 Daughter Card installed
- DEMO9S08QE32 Resource CD
  - DEMO9S08QE32 Embedded Multilink hardware interface driver
  - DEMO9S08QE32 User Manual (this document)
  - DEMO9S08QE32 Quick Start Application Source Code
  - DEMO9S08QE32 Base Board and Daughter Cards Schematics
  - DEMO9S08QE32 Component Breakdown List
  - DEMOQE Toolkit Applications
  - Links to P&E Evaluation Software
  - Links to Freescale documentation, P&E Discussion Forums, and EMO9S08QE32 FAQs.
- 2-cell AAA battery package
- USB Cable
- Freescale Warranty Card

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## Key Features:

- On-board Logic Analyzer
- On-board Virtual Serial Port
- Asymmetrically positioned 4 8x2 male connectors for interchangeable daughter cards
- P&E's Embedded Multilink circuitry populated on the bottom
- RS-232 Serial Port w/ DB9-F Connector
- SCI signals connected to P&E's Embedded Multilink through jumpers
- ON/OFF Power Switch w/ LED indicator
- A 5VDC to 8VDC power supply input barrel connector
- Power Input Selection Jumpers for selecting the input voltage source:
  - Power Input from Embedded Multilink to LDO regulator
  - Power Input from DC Power Jack to LDO regulator
  - Regulated VDD Output at 3.0V
  - Regulated VDD Output at 2.1V
  - Power Input from Battery
  - Power Input from MCU\_PORT connector
- Optional External Crystal Circuitry Layout (not populated)
- User Features:
  - 3-axis Accelerometer w/Enable
  - 8 User LED's w/ Enable
  - 4 User Push Buttons w/ Enable
  - 1 Piezzo Buzzer w/ Enable
  - IIC Pullups w/ Enable
  - 10K Ohm POT w/ Enable
- Option Jumpers:
- COM\_EN for 1.8V to 4.25V RS232 Transceiver
- TXD\_EN for SCI\_TXD to Embedded Multilink
- RXD\_EN for SCI\_RXD to Embedded Multilink
- INPUT\_EN for two input channels to Embedded Multilink

# **Ordering Information:**

### **Products:**

Part Number	Manufacturer	Farnell P/N	Newark P/N
DEMO9S08QE32	Freescale	1692129	69M1815

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# **Associated Products:**

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
MC9S08QE32CLD	Freescale	8-Bit Microcontroller IC	1693478	12N7247
DC9S08QE32	Freescale	DC9S08QE32 Daughter Card	NA	69M1808
SPC4800	SPC Technology	USB 2.0 Cable Assembly	4556604	83K3790
SPC19944	SPC Technology	Shielded Serial Cable Assembly	1702769	83K3689
CWA-STANDARD-N	Freescale	Software, suite licence, c/w, standard	1750496	26R5712
USBMULTILINKBDME	Freescale	In-Circuit Emulator, Debugger and Programmer for HCS08, HC(S)12(X), RS08, and ColdFire V1	1165943	83K3802
MC9S08QE128CLH	Freescale	8-Bit Microcontroller IC	1561391	94M8317
MMA7260QT	Freescale	Acceleration Sensor IC	1457139	01M6018
MAX3218CAP+	Maxim	RS-232 Transceiver	1593346	67K4815

# **Similar Products:**

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
	_	S08LL			
DEMO9S08LL16	Freescale	Demonstration	MC9S08LL16	NA	40P4105
		Board			
		MC9S08QE8CL			
DEMO9S08QE8	Freescale	С	MC9S08QE8CLC	1561699	89M1255
DEMO9300QE0		Demonstration			
		board			
	Freescale	MC9S08SH16,			
DEMORGONOLIDO		MC9S08SH32	MC9S08SH16	NIA	0014040
DEMO9S08SH32		Demonstration	MC9S08SH32	NA	69M1818
		board			
		S08LL			
DEMO9S08LL16	Freescale	Demonstration	MC9S08LL16	NA	40P4105
		Board			
		JS16			
DEMO9S08JS16	Freescale	Demonstration	MC9S08JS16	1704520	40P4104
		Kit			

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DEMOQE128	Freescale	Demonstration Board	MC9S08QE128	1430732	47M1812

#### **Document List:**

#### **Datasheets:**

Part Number	Description	
AS1117	AS1117 800mA Low Dropout Regulator	
MC9S08QE32	8-Bit HCS08 Central Processor Unit	1.23MB
MMA7260QT	MMA7260QT, ±1.5g - 6g Three Axis Low-g Micromachined Accelerometer	194KB
MC9S08QE128	MC9S08QE128 Data Sheet	1.2MB
MAX3218	1.8V to 4.25V-Powered RS-232 Transceiver	124KB

### **Application Notes:**

File Name	Size
DEMO9S08QE32 LAB Tutorials	345KB
DEMO9S08QE32 Quick Start Guide	298KB
Medical Applications USB Stack User Guide	3.46MB
HCS08 Family Reference Manual	3.5MB

### Hardware & Software:

File Name	Size
DEMOQE Base Board Schematic	122KB
Evaluation: CodeWarrior for Microcontrollers	45.8MB
Special Edition: CodeWarrior for Microcontrollers	45.8MB
CW MCU v6.2.2 Compiler Patch	113MB
CodeWarrior for Microcontrollers v6.1 - Processor Expert Update v3.03	178MB

