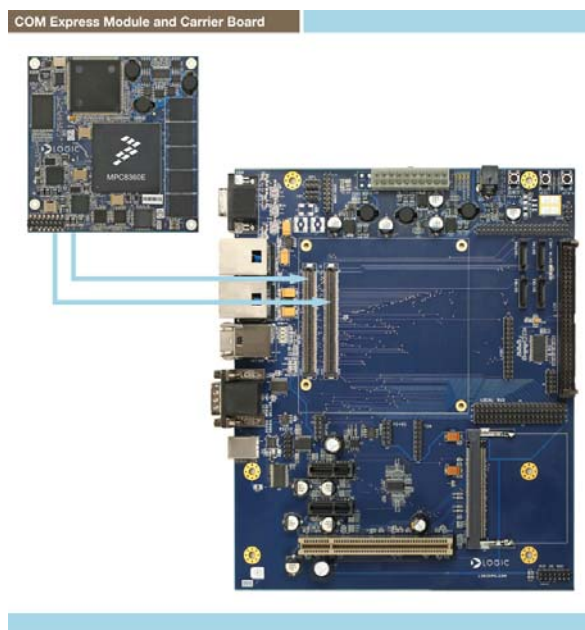




## Freescale - MPC8360E-RDK - MPC8360E-RDK Reference Design Kit

### Product Overview:

The Reference Design Kit (MPC8360E-RDK ) highlights the capabilities of the MPC83xx PowerQUICC® processors for applications that require high-performance connectivity and determinism. The platform supports graphics and touch screen capability in addition to popular interfaces such as Ethernet, 64-bit PCI controllers, UARTS, integrated security engine, USB, SPI, I2C, and (GPIO) pins. The platform ships with a Linux® board support package, boot loader, production-ready protocols for evaluation, and is supported by Freescale CodeWarrior® tools, Wind River Linux and VxWorks® and Green Hills INTEGRITY®/velocity™. The protocols include: EtherNet/IP™ and Device Net™ which is licensable from Real Time Automation, ETHERNET Power link and IEEE® 1588 which are licensable from IXXAT. Additional protocols are under development for this platform. This platform utilizes the industry-standard COM-Express module for the MPC8360 microprocessor which allows for future MPC83xx modules to be offered for this development environment.



### Kit Contents:

- Type 3 module
- Supports full MPC83xx PowerQUICC processor family
- 256 MB of DDR2 SDRAM
- 8 MB Boot NOR Flash
- 2x 10/100/1000 Mbps Ethernet
- 2x 10/100 fast Ethernet
- Graphics and touch screen capable
- 4x full functional UART
- 32-bit PCI connection
- 1x SPI

- 1x I2C
- 4 port USB HUB
- 8 pins General Purpose Input/Output
- 2 x PCI Express® (x1 type)
- 1 x PCI slots (32 bit / 66 MHz or 33 MHz)
- Common I/O routed to back panel
  - 4 USB 2.0
  - 4 Ethernet
  - 2 RS485
  - 2 RS232
  - 4 SATA
- Wireless connectivity through 1x mini-PCI
  - 802.11 or ZigBee Technology®

## **Key Features:**

- Platform/HW
  - Carrier Board FlexATX
  - MPC8360E COM Express module
  - Power Supply
  - Null-modem serial cable
- Protocols – Optimized Binaries \*\*
  - Ethernet/IP™ (RTA)
  - Device Net™ (RTA)
  - Ethernet Power link (IXXAT)
  - IEEE® 1588 (IXXAT)
- Tools
  - CodeWarrior® IDE & USB TAP for Debug
  - Linux® BSP & Optimized device Drivers \*
  - U-Boot Boot loader installed on resident flash \*
  - Wind River Linux® and VxWorks \*\*
  - Green Hills INTEGRITY®/velocity™ and MULTI® \*\*
- Design Files – downloadable for COM Express module only
  - PDF of Schematics, Layout
  - BOM

- Documentation
  - Quick Start Guide
  - Users Guide \*\*

## Ordering Information:

### Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
MPC8360E-RDK	Freescale	1692119	47M2113
MPC8360E-RDK.	Freescale	NA	NA

### Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
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
USBMLCF	Freescale	USB ColdFire Multilink	1535884	01M6486
MPC8360EVVAJDGA	Freescale	Embedded Networking Processor IC	NA	69M3964
MPC8360EVBAGDGA	Freescale	Embedded Networking Processor IC	NA	69M3963
MPC8360EVVALFHA	Freescale	Embedded Networking Processor IC	NA	69M3965
MAX3232CDBE4	TI	RS-232 Transceiver IC	1470457	26M0603

### Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
MPC8313E-RDB	Freescale	MPC8313E Reference Design Kit	MPC8313E	1692097	NA
MPC8313E-RDB.	Freescale	MPC8313E Reference	MPC8313E	1690052	NA

		Design Kit			
MPC8349E-MITX-GP	Freescale	MPC8349E Hardware / Software - Reference Design Kit	MPC8349E, MPC8321E, MPC8323	1692095	14M6286
MPC8315E-RDB	Freescale	MPC8315E Hardware / Software - Reference Design Kit	MPC8315E	1750497	NA
MPC8323E-RDB	Freescale	MPC8323E Hardware / Software - Reference Design Kit	MPC8323E	1692093	NA
ASP 8347	Analogue & Micro	MPC8347 Development Kit	MPC8347	1496222	61M4869

## Document List:

## Datasheets:

Part Number	Description	Size
MPC8360	<a href="#">MPC8360E/MPC8358E PowerQUICC II Pro Processor Revision 2.x TBGA Silicon Hardware Specifications</a>	1.23MB
HIN202	<a href="#">+5V Powered RS-232 Transmitters/Receivers with 0.1Microfarad External Capacitors</a>	493KB
DP83848	<a href="#">DP83848VYB PHYTER® - Extended Temperature Single Port 10/100 Mb/s Ethernet Physical Layer Transceiver</a>	148KB
USB3300	<a href="#">High speed USB host or device phy</a>	345KB
MAX3232	<a href="#">RS-232 Transceiver IC</a>	609KB

## Application Notes:

File Name	Size
<a href="#">MPC8360EMDSUM : MPC8360 Modular Development System Processor Board User's Manual</a>	3.51MB
<a href="#">AN2859SW_FPM Frequency Pulse Measurement (FPM) eTPU Function API</a>	2KB
<a href="#">AN2858SW_PPA Pulse Period Accumulate (PPA) eTPU Function API</a>	2KB
<a href="#">AN2583 Programming the PowerQUICC III/PowerQUICC II Pro DDR SDRAM Controlle</a>	572KB
<a href="#">AN3645 SEC 2/3x Descriptor Programmer's Guide</a>	1MB
<a href="#">AN3939 DDR Interleaving for PowerQUICC® and QorIQ™ Processors</a>	590KB
<a href="#">AN3538 Enabling and Checking DDR ECC on PowerQUICC II</a>	449KB
<a href="#">AN2859SW_FPM Frequency Pulse Measurement (FPM) eTPU Function API</a>	2KB
<a href="#">MPC8360EMDSUMAD : MPC8360 Modular Development System Processor Board</a>	1.04MB

<a href="#">Hardware Getting Started Guide</a>	
<a href="#">AN3097 : MPC8360/MPC8358E PowerQUICC Design Checklist</a>	282KB
<a href="#">MPC8360EAMDSUM : MPC8360EA Modular Development System Processor Board User's Manual</a>	3.67MB
<a href="#">AN3830 Hardware Debugging Using the CodeWarrior IDE</a>	1.57MB
<a href="#">AN3880 Ethernet Extended Frame Filtering</a>	553KB
<a href="#">AN2755: SEC 2.0 Descriptor Programmer's Guide</a>	806KB
<a href="#">AN2915 Design Migration from the PowerQUICC II Family to the PowerQUICC II Pro Family</a>	605KB
<a href="#">AN3373 PowerQUICC II Pro (MPC83xx) PCI Agent Initialization</a>	449KB
<a href="#">AN3097 MPC8360/MPC8358E PowerQUICC Design Checklist</a>	281KB
<a href="#">AN3536 Enhanced Serial Interface Mapping: 16 E1/T1 QUICC Engine™ Solution for TDM Connectivity</a>	525KB
<a href="#">AN2129 Instruction and Data Cache Locking on the e300 Processor Core</a>	474KB

## Hardware & Software:

File Name	Size
<a href="#">Service Pack 1 for 837x Rev.2.1 for CodeWarrior Development Studio for Netcom Power Architecture...</a>	25.5MB
<a href="#">Evaluation: CodeWarrior for Power Architecture, Linux Applications Edtn (Linux)</a>	420MB
<a href="#">Evaluation: CodeWarrior for Power Architecture, Professional Edtn (Windows)</a>	467MB
<a href="#">Code Warrior for Power Architecture - v8.7.1 Patch (Linux)</a>	52MB
<a href="#">Code Warrior for Power Architecture - v8.7.1 Patch (Windows)</a>	25MB
<a href="#">Linux BSP for Freescale MPC8360EA-MDS-PB</a>	810MB
<a href="#">CodeWarrior Ethernet TAP RoHS Debug Probe Update (Windows)</a>	14.7MB
<a href="#">CodeWarrior Ethernet TAP RoHS Debug Probe Update (Linux)</a>	14.7MB
<a href="#">U-Boot for MPC8560 on MSC8144ADS</a>	91.4MB
<a href="#">Netcom Device Drivers Package includes Rev 3.0 executable</a>	431MB
<a href="#">SEC 2.x and SEC 3.x Security Core Device Driver Package This archive contains the initial issue</a>	590KB
<a href="#">UPM Tool for PowerQUICC II Pro and PowerQUICC III Processors</a>	2.7MB
<a href="#">Free MASTER Communication Driver</a>	4.3MB
<a href="#">SEC2.x Security Core Device Driver 85xx/83xx SEC 2.x Device Drivers</a>	75KB
<a href="#">SEC2.x Security Core Driver Examples and Test Suite</a>	151KB
<a href="#">SEC2XSWUG Security Engine 2.x Reference Device Driver User's Guide: For SEC2.x Device</a>	805KB
<a href="#">MPC8360EA Boundary Scan Description Language File (for revision 2.1 silicon)</a>	83KB
<a href="#">MPC8360E Boundary Scan Description Language File</a>	31KB

<a href="#">Slow Protocols RAM Package This microcode RAM package enables the UCC slow protocols: UART</a>	503KB
<a href="#">RAM Microcode Patches for PowerQUICC II Pro Family QE Errata</a> <a href="#">Microcode patches for QUICC Engine</a>	258KB
<a href="#">MPC8360E Orcad Symbol File</a>	64KB

