Development Systems

Family	Products Supported	Non-RoHS Part No.	RoHS Part No.	DISTY S/R	Description
MPC82xx	MPC8260/70/80—516 PBGA	PQ2FADS-VR		$2,995	MPC8260/70/80 Family Application Development System
	MPC8272 Family	MPC8272ADS	MPC8272ADSE	$2,995	MPC8272 Family Application Development System
	All 82xx	MPC8260ADS-TCOM		$2,995	MPC8260 T1/T3 Communication Companion Board for ADS
MPC83xx	MPC832x Family		MPC8323E-MDS-PB	$1,800	MPC8323E Processor Board (stand alone)
	MPC834x Family		MPC8349EA-MDS-PB	$1,845	MPC8349E Processor Board (can be stand alone)
	MPC834x Family	MPC8349EA-MDS		$4,199	PowerQUICC II Pro Family Modular Development System
	MPC836x Family		MPC8360EA-MDS-PB	$1,400	MPC8360E Processor Board for Rev 2.x Silicon (can be stand alone)
	MPC83xx Family		PQ-MDS-PIBE	$2,499	MPC83xx/MPC85xx Platform I/O Board
	MPC83xx Family		PQ-MDS-USB	$349	MPC83xx/MPC85xx USB PMC Card
	MPC83xx Family		PQ-MDS-PEXPCI	$349	MPC8xxx Adaptor for PCI Express
	MPC83xx Family		PQ-MDS-T1E	$1,395	T1, E1 Plug-in Card
	MPC83xx Family	PQ-MDS-QOC3		$1,495	UAD OC-3 ATM Plug-in Card
	MPC8360		MPC8360E-RDK	$999	Industrial Protocol Development System (Carrier Board and MPC8360E COM Module) (Rev. 2.1 silicon)
	MPC8379		MPC8379E-MDS-PB	$2,900	Modular Development System
	MPC8378		MPC8378E-MDS-PB	$2,900	Modular Development System
	MPC8377		MPC8377E-MDS-PB	$2,900	Modular Development System
MPC85xx	MPC8536E		MPC8536DS	$3,395	PowerQUICC III MPC8536E Development System
	MPC8536E		MPC8536-RDK	$995	MPC8536E Reference Design Kit (Carrier board and MPC8536E COM module)
	MPC8540		MPC8540ADS-BGAE	$4,996	PowerQUICC III MPC8540 Application Development System
	MPC8544		MPC8544DS	$3,395	PowerQUICC III MPC8544 Development System
	MPC8560		MPC8560ADS-BGAE	$4,996	PowerQUICC III MPC8560 Application Development System
	MPC8555, MPC8541		MPC8555CDS	$4,996	PowerQUICC III MPC8555 Configurable Development System Supports MPC8555 and MPC8541
	MPC8548, MPC8547, MPC8545, MPC8543		MPC8548CDS	$5,499	PowerQUICC III MPC8548 Configurable Development System Supports MPC8548, MPC8547, MPC8545 and MPC8543
	MPC8568		MPC8568E-MDS-PB	$2,495	MPC8568 Processor Board
	MPC8568E		PQ-MDS-T1E	$1,395	MPC83xx/MPC85xx SLIC SLAC T1/E1 Card
	MPC8568E	PQ-MDS-QOC3		$1,495	MPC83xx/MPC85xx Quad OC-3 ATM Card
	MPC8569		MPC8569E-MDS-PB	$2,995	PowerQUICC III MPC8569E Modular Development System
	MPC8572 (dual core)		MPC8572DS	$3,995	ATX High-Performance Platform
MPC86xx	MPC8610		MCEVALHPCD-8610E	$3,075	Micro ATX Performance Platform
	MPC8641D (dual core)		MCEVALHPC-8641D	$3,999	ATX Performance Platform
	MPC8640D (dual core)		MCEVALHPCN-8641D	$3,999	ATX Performance Platform
QorIQ P2 and P1 Families	P2020/2010		P2020DS-PB	$3,500	QorIQ P2020/P2010 Development System
	P1021/P1012		P1021-MDS-PB	$3,395	QorIQ P1021 Modular Development System
	P1021/P1012		P2020COME-DS-PB	$1,449	QorIQ P1021 Development System (COM Express board on carrier card)
	P1022/P1013		P1022DS-PA	$3,395	QorIQ P1022 Development System
	P1022/P1013		P1022COME-DS-PB	$1,449	QorIQ P1022 Development System (COM Express board on carrier card)
QorIQ P4 Family	P4080		P4080DS-PB	$4,000	QorIQ P4080 Development System
	P4080		P4080COME-DS-PB	$1,449	QorIQ P4080 Development System (COM Express board on carrier card)

Reference Platforms

Family	Products Supported	Non-RoHS Part No.	RoHS Part No.	DISTY S/R	Description
MPC82xx	All MPC82xx	MPC8260ADS-FLASH		$150	Flash Chip for MPC8260ADS
	All MPC82xx	MPCRCOP-3V		$500	COP Interface
MPC83xx	MPC8306		MPC8306-KIT	$759	Carrier+SOM
	MPC8306		MPC8306-SOM	$269	System on Module
	MPC8308		MC8308-RDB	$299	PowerQUICC II Pro Reference Platform
	MPC8308		MPC8308-KIT	$789	Carrier+SOM
	MPC8308		MPC8308-SOM	$299	System on Module
	MPC8309		MPC8309-KIT	$779	Carrier+SOM
	MPC8309		MPC8309-SOM	$289	System on Module
	MPC8313		MPC8313E-RDBB	$299	PowerQUICC II Pro Reference Platform
	MPC8321, MPC8323		MPC8323E-RDB	$399	PowerQUICC II Pro Reference Platform
	MPC8343, MPC8347, MPC8349		MPC8349E-mITXE	$699	PowerQUICC II Pro Reference Platform
	MPC8315/14		MPC8315E-RDBA	$499	Cost-Effective Reference Design Board
	MPC837x		MPC8377E800-RDBA	$699	Cost-Effective Reference Design Board
	MPC837x		MPC8379E-RDBA	$699	Cost-Effective Reference Design Board
	MPC8323, MPC8360, MPC8568		PQ-MDS-T1E	$1,395	MPC83xx/MPC85xx SLIC SLAC T1/E1 Card
	MPC8323, MPC8360, MPC8568	PQ-MDS-QOC3		$1,495	MPC83xx/MPC85xx Quad OC-3 ATM Card
MPC74xx	MPC7448		MCEVALHPC2-7448E	$2,772	Evaluation Board for MPC7448
QorIQ P2 and P1 Families	P2020/P2010		P2020RDB-PB	$595	QorIQ P2020/P2010 Reference Design Board
	P1020/P1011		P1020RDB-PA	$499	QorIQ P1020/P1011 Reference Design Board

QUICCstart Boards

Family	Products Supported	Non-RoHS Part No.	RoHS Part No.	DISTY S/R	Description
	MPC8343		CWH-PPC-8343N-VE	$976	MPC8343 QUICCstart Board
	MPC8555		CWH-PPC-8555N-VE	$1,594	MPC8555 QUICCstart Board
	MPC885	CWH-PPC-885XN-VX		$798	MPC885 QUICCstart Board

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PowerQUICC and QorIQ Processor Selector Guide

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Technical Device Matrix

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	Floating Point Unit	SCC	SMC	FCC	MCC	T1/E1	T3/E3	UTOPIA	Multi-Channel HDLC	SPI	I²C	GPIO	USB	Memory SCC	HW Encryption	PKG
MPC870	.31W	66, 80, 133	2 1/10	8 KB/8 KB	-	-	1	-	-	-	-	-	-	1	1	18	Full/Low Speed	SDRAM	-	256 PBGA
MPC875	.31W	66, 80, 133	1 10, 2 10/100	8 KB/8 KB	-	1	1	-	-	1	-	-	Up to 32	1	1	18	Full/Low Speed	SDRAM	Y	256 PBGA
MPC880	.31W	66, 80, 133	Up to 2 10, 2 10/100	8 KB/8 KB	-	2	2	-	-	2	-	Y	Up to 64	1	1	18	Full/Low Speed	SDRAM	-	357 PBGA
MPC885	.31W	66, 80, 133	Up to 3 10, 2 10/100	8 KB/8 KB	-	3	2	-	-	2	-	Y	Up to 64	1	1	18	Full/Low Speed	SDRAM	Y	357 PBGA

For information on the MPC85x and MPC86x processors, please refer to freescale.com.

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	Floating Point Unit	SCC	SMC	FCC	MCC	T1/E1	T3/E3	UTOPIA	Multi-Channel HDLC	SPI	I²C	GPIO	PCI	Local Bus	USB	Memory SCC	HW Encryption	PKG
MPC8241	0.8W	166, 200, 266	-	16 KB/16 KB	Double Precision	-	-	-	-	-	-	-	-	-	-	-	32-bit	N	-	SDRAM	-	357 PBGA
MPC8245	1.7W	266, 333, 400	-	16 KB/16 KB	Double Precision	-	-	-	-	-	-	-	-	-	-	-	32-bit	N	-	SDRAM	-	352 TBGA
MPC8248	1.0W	266, 300, 400	3 10, 2 10/100	16 KB/16 KB	Double Precision	3	2	2	-	2	-	-	Up to 64	1	1	82	32-bit	N	Full/Low Speed	SDRAM	E Version	516 PBGA
MPC8247	1.0W	266, 300, 400	3 10, 2 10/100	16 KB/16 KB	Double Precision	3	2	2	-	2	-	-	64	1	1	82	32-bit	N	2.0	SDRAM	-	516 PBGA
MPC8271	1.0W	266, 300, 400	3 10, 2 10/100	16 KB/16 KB	Double Precision	3	2	2	-	2	-	1	64	1	1	82	32-bit	N	2.0	SDRAM	-	516 PBGA
MPC8270	1.0W	266/333, 450	Up to 4 10, Up to 3 10/100	16 KB/16 KB	Double Precision	4	2	3	1	4	1	-	Up to 128	1	1	120	32-bit	Y	Full/Low Speed	SDRAM	-	516 PBGA/480 TBGA
MPC8272	1.0W	266, 300, 400	Up to 4 10, 2 10/100	16 KB/16 KB	Double Precision	3	2	2	-	2	-	1	Up to 64	1	1	82	32-bit	N	Full/Low Speed	SDRAM	E Version	516 PBGA
MPC8275	1.0W	266	Up to 4 10, Up to 3 10/100	16 KB/16 KB	Double Precision	4	2	3	1	4	1	2	Up to 128	1	1	120	32-bit	Y	Full/Low Speed	SDRAM	-	516 PBGA
MPC8280	1.25W	333, 450	Up to 4 10, Up to 3 10/100	16 KB/16 KB	Double Precision	4	2	3	1	8	1	2	Up to 256	1	1	120	32-bit	Y	Full/Low Speed	SDRAM	-	480 TBGA

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	QUICC Engine Speed	UCC	Floating Point Unit	T1/E1	UTOPIA	HDLC	SPI	I²C	DUART	GPIO	PCI	Local Bus	USB	Memory Controller	DDR Data Rate	HW Encryption	Other	PKG
MPC8306	1.15W	133, 266	3 x 10/100	16 KB/16 KB	200 MHz	5	-	2	1	Up to 64	1	2	4	8	-	Y	x1 Host/Device/OTG	16-bit DDR2 w/o ECC	266	-	4 x CAN	369 MAPBGA
MPC8306S	1.15W	133, 266	3 x 10/100	16 KB/16 KB	200 MHz	5	-	2	1	Up to 64	1	2	4	8	-	Y	x1 Host/Device/OTG	16-bit DDR2 w/o ECC	266	-	4 x CAN	369 MAPBGA
MPC8308	1.23W	266, 333, 400	2 10/100/1000, MII, RGMII	16 KB/16 KB	-	-	Double Precision	-	-	-	1	2	4	24	-	Y	High-Speed 2.0 Host/Device/OTG	16/32 bit DDR1/2	266	-	1 x PCI Express	473 MAPBGA
MPC8309	1.56W	266, 333, 400	2 10/100/1000, MII, RGMII	16 KB/16 KB	200 MHz	5	-	2	1	Up to 64	1	2	4	16	-	Y	x1 Host/Device/OTG	16-/32-bit DDR2 w/ECC	266	-	1 x PCI Express	489 MAPBGA
MPC8313	.82W	266, 333, 400	2 SGMII, RGMII, RTBI, (R) MII	16 KB/16 KB	-	-	Double Precision	-	-	-	1	2	-	32	32-bit	Y	High-Speed 2.0 (PHY)	16/32-bit DDR1/2	333	E Version	-	516 TEPBGA
MPC8314	1.11W	266, 333, 400	SGMII, RGMII, RTBI, (R) MII	16 KB/16 KB	-	-	Double Precision	-	1	1	1	2	-	32**	32-bit	Y	High-Speed 2.0 (PHY)	16/32-bit DDR1/2	266	E Version	2 x PCI Express, TDM	620 TEPBGA
MPC8315	1.11W	266, 333, 400	2 SGMII, RGMII, RTBI, (R) MII	16 KB/16 KB	-	-	Double Precision	-	1	1	1	2	-	32**	32-bit	Y	High-Speed 2.0 (PHY)	16/32-bit DDR1/2	266	E Version	SATA (2 x 3.0 w/PHY), 2 x PCI Express, TDM	620 TEPBGA
MPC8343	2.0W	266, 400	2 10/100/1000	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	64	32-bit	Y	High-Speed	32-bit DDR1/2 w/ECC	266, 400	E Version	-	620 PBGA
MPC8347	2.0W	266, 400, 533, 667	2 10/100/1000	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	52	32-bit	Y	2 x High-Speed 2.0	64/32-bit DDR1/2 w/ECC	Up to 400	E Version	-	620 PBGA, 672 TBGA
MPC8349	2.0W	400, 533, 667	2 10/100/1000	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	39	2 x 32-bit or 1 x 64-bit	Y	2 x High-Speed 2.0	64/32-bit DDR1/2 w/ECC	Up to 400	E Version	-	672 TBGA
MPC8377	4.0W	400, 533, 667, 800	2 (RGMII, GMII, RTBI, TBI, HII)	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	52	32-bit	Y	2 x High-Speed 2.0	32/64-bit DDR1/2	Up to 400	E Version	SATA (2 x 2.0 w/PHY, 2 x PCI Express)	689 TEPBGA
MPC8378	4.0W	400, 533, 667, 800	2 (SGMII, RGMII, GMII, RTBI, TBI, HII)	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	52	32-bit	Y	High-Speed 2.0	32/64-bit DDR1/2	Up to 400	E Version	2 x PCI Express	689 TEPBGA
MPC8379	4.0W	400, 533, 667, 800	2 (RGMII, GMII, RTBI, TBI, HII)	32 KB/32 KB	-	-	Double Precision	-	-	-	1	2	-	52	32-bit	Y	High-Speed 2.0	32/64-bit DDR1/2	Up to 400	E Version	SATA (4 x 1 3.0 w/PHY)	689 TEPBGA

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	L2 Cache	Floating Point Unit	QUICC Engine Speed	SCC	SMC	FCC	UCC	MCC	T1/E1	T3/E3	UTOPIA	HDLC	SPI	I²C	DUART	PCI	PCIe	GPIO	Local Bus	USB	Memory Controller	DDR Data Rate	HW Encryption	XOR	Other	PKG
MPC8321/MPC8323	1W	266, 333	3 x 10/100	16 KB/16 KB	-	-	200 MHz	-	-	-	5	-	4	4	-/1	Up to 64	2	1	1	-	-	128	Y	2.0 Full/Low (in the QE)	32-bit DDR1/2	266	E Version	Y	1 x 32-bit PCI	516 PBGA
MPC8360	5.0W	400, 533, 667	Up to 2 10/100/1000 Or Up to 8 10/100	32 KB/32 KB	-	Double Precision	Dual—Up to 500 MHz	-	8	1	8	2	-	2	-	Up to 256	2	2	1	-	-	212	Y	2.0 Full/Low (in the QE)	2 x 32-bit or 1 x 32/64-bit DDR	333	E Version	-	1 x 32-bit PCI	740 TBGA
MPC8358	3.0W	266, 400	Up to 2 10/100/1000 Or Up to 6 10/100	32 KB/32 KB	-	Double Precision	Dual—Up to 400 MHz/Dual—Up to 266 MHz	-	6	-	4	1	-	1	-	Up to 128 (QMC)	2	2	1	-	-	212	Y	2.0 Full/Low (in the QE)	1 x 32-bit PCI DDR1/2 / 1 x 32/64-bit DDR	266	E Version	-	1 x 32-bit PCI	740 TBGA/668 PBGA
MPC8541	4.4W	533, 600, 667, 833, 1000	Up to 10/100, 2 10/100/1000	32 KB/32 KB	256K	Single Precision	-	-	-	-	-	-	2	-	-	-	-	1	1	2 x 32-bit/1 x 64-bit PCI	-	32	Y	-	64-bit DDR1	DDR1: 333	E Version	Y	-	783 FC-PBGA
MPC8555	4.9W	667, 833, 1000	Up to 1 10/100, 2 10/100/1000	32 KB/32 KB	256K	Single Precision	-	3	2	2	-	-	2	-	-	To 64	-	1	1	2 x 32-bit/1 x 64-bit PCI	-	32	Y	1.1	64-bit DDR1	DDR1: 333	E Version	Y	-	783 FC-PBGA
MPC8560	5.1W	667, 833, 1000	Up to 3 10/100, 2 10/100/1000	32 KB/32 KB	256K	-	-	4	-	3	-	2	8	2	2	To 256	-	1	1	32/64-bit PCI/PCI-X	-	32	Y	-	64-bit DDR1	DDR1: 333	E Version	Y	Parallel	783 FC-PBGA
MPC8567	8.7W	800, 1000, 1200	Up to 8 10/100, 10/100/1000	32 KB/32 KB	-	Double Precision	Dual—Up to 400 MHz	-	8	1	8	2	2	2	-	Up to 256	2	2	1	-	1 x 4	188	Y	-	64-bit DDR1/2	DDR1: 533, DDR2: 533	-	Y	Serial RapidIO®, 1 x 32-bit PCI	1023 FC-PBGA
MPC8568	8.7W	800, 1000, 1200, 1333	Up to 5 10/100/1000 or 10/100/1000	32 KB/32 KB	-	Double Precision	Dual—Up to 533 MHz	-	8	1	8	2	2	2	-	Up to 256	2	2	1	-	1 x 4	188	Y	-	64-bit DDR1/2	DDR1: 533, DDR2: 533	-	Y	Serial RapidIO, 1 x 32-bit PCI	1023 FC-PBGA
MPC8569	3.42W (est)	800, 1000, 1333	Up to 8 10/100, Up to 4 10/100/1000	32 KB/32 KB	512 KB	Double Precision	Quad—Up to 667MHz	-	8	2	Up to 16	Up to 16	-	1	-	256	2	2	2	-	1 x 4	173	Y	2.0 Full Speed (in the QE)	64-/2 x 32-bit DDR2/3 w/ECC	DDR 2/3 up to 800 MHz	E Version	Y	4-channel DMA, 16-TDM, 2 sRIO	783 FC-PBGA

UCCs: Up to Three MII/RMII, Up to Four TDM, One UTOPIA   MPC8360 UCCs: Two UL2/POS, Two GMII, Eight MII   MPC8358 UCCs: One UL2/POS, Two GMII, Six MII

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	L2 Cache	Floating Point Unit	SPI	I²C	DUART	GPIO	PCI	PCI Express®	Local Bus	USB	DDR	DDR Data Rate	H/W Encryption	XOR	Other	PKG
MPC8536	3.0W	600–1500	2 (SGMII, RGMII, RTB, MII)	32 KB/32 KB	512 KB	Double Precision	1	2	1	16	32-bit	3 Controllers, 8 Lanes	Y	3 x 2.0	DDR2/3	Up to 667 MHz	E Version	Y	SATA x2, SD/MMC, Adv. Pwr Mgmt	783 FC-PBGA
MPC8535	3.0W	600–1500	2 (SGMII, RGMII, RTB, MII)	32 KB/32 KB	512 KB	Double Precision	1	2	1	16	32-bit	2 Controllers, 4 Lanes	Y	2 x	DDR2/3	Up to 667 MHz	E Version	Y	SATA x2, SD/MMC, Adv. Pwr Mgmt	783 FC-PBGA
MPC8540	4.8W	667, 833, 1000	Up to 3 10/100, 2 10/100/1000	32 KB/32 KB	256K	Single Precision	-	1	1	***	32/64-bit PCI/PCI-X	-	Y	-	64-bit DDR1	DDR1: 333	-	-	Parallel	783 FC-PBGA
MPC8543	6.1W	800, 1000	2 10/100/1000	32 KB/32 KB	256K	Double Precision	-	2	1	***	1 x 32-bit	1 Controller, 4 Lanes	Y	-	64-bit DDR 1/2 w/ECC	DDR1: 400, DDR2: 400	E Version	-	Serial RapidIO	783 FC-PBGA
MPC8544	2.6W	667–1067	2 10/100/1000, SGMII	32 KB/32 KB	256K	Double Precision	-	2	1	16	1 x 32-bit	3 Controllers, 4 Lanes	Y	-	64-bit DDR 1/2	DDR1: 400, DDR2: 533	E Version	Y	-	783 FC-PBGA
MPC8545	6.1W	800, 1000, 1200	2 10/100/1000	32 KB/32 KB	512K	Double Precision	-	2	1	***	2 x 32-bit/1 x 64-bit PCI	1 Controller, 4 Lanes	Y	-	64-bit DDR 1/2 w/ECC	DDR1: 400, DDR2: 400	E Version	-	-	783 FC-PBGA
MPC8547	6.5W	1000, 1200, 1333	4 10/100/1000	32 KB/32 KB	512K	Double Precision	-	2	1	***	64-bit PCI/PCI-X	1 Controller, 4 Lanes	Y	-	64-bit DDR 1/2 w/ECC	DDR1: 533, DDR2: 533	E Version	Y	-	783 FC-PBGA
MPC8548	6.5W	1000, 1200, 1333, 1500	4 10/100/1000	32 KB/32 KB	512K	Double Precision	-	2	1	***	2 x 32/1 x 64-bit PCI/PCI-X	1 Controller, 4 Lanes	Y	-	64-bit DDR 1/2 w/ECC	DDR1: 533, DDR2: 533	E Version	Y	Serial RapidIO	783 FC-PBGA
MPC8572	12W	1067–1500	1 10/100 + 4 10/100/1000 with SGMII	32 KB/32 KB	1 MB	Double Precision	-	2	1	8	-	3 Controllers, 8 Lanes	Y	-	2 x 32/64-bit DDR2/3 w/ECC	DDR2/3: 800	E Version	Y	x4 Serial RapidIO	1023 FC-PBGA

Part Number	Typical Power*	Speed (MHz)	Ethernet	I/D Cache	L2 Cache	Floating Point Unit	SPI	I²C	DUART	GPIO	PCI	Local Bus	USB	DDR	DDR Data Rate	H/W Encryption	RIO	PCI Express	Other	PKG
MPC8610	8.3W	667, 800, 1000, 1066, 1333	-	32 KB/32 KB	256K	Double Precision	1	2	1	32	32-bit	Y	-	1 x 32/64-bit DDR2 w/ECC	DDR1: 333, DDR2: 400/533	-	-	x1/x2/x4/x8 and x1/x2/x4	LCD Controller/2 x SSI Audio, AltiVec Technology	783 FC-PBGA
MPC8641	12W	1000, 1250, 1333, 1500	4 10/100/1000	32 KB/32 KB	1 MB	Double Precision	-	2	1	32	-	Y	-	2 x 64-bit DDR2 w/ECC	400 to 600	-	Serial x4	Dual x1/x2/x4/x8	AltiVec Technology	1023 HCTE FC-CBGA
MPC8641D	16W	1000, 1250, 1333, 1500	4 10/100/1000	32 KB/32 KB/core	1 MB/core	Double Precision	-	2	1	32	-	Y	-	2 x 64-bit DDR2 w/ECC	400 to 600	-	Serial x4	Dual x1/x2/x4/x8	AltiVec Technology	1023 HCTE FC-CBGA
MPC8640	9W	1000, 1250	4 10/100/1000	32 KB/32 KB	1 MB	Double Precision	-	2	1	32	-	Y	-	2 x 64-bit DDR2 w/ECC	400 to 500	-	Serial x4	Dual x1/x2/x4/x8	AltiVec Technology	1023 HCTE FC-CBGA
MPC8640D	14W	1000, 1250	4 10/100/1000	32 KB/32 KB	1 MB	Double Precision	-	2	1	32	-	Y	-	2 x 64-bit DDR2 w/ECC	400 to 500	-	Serial x4	Dual x1/x2/x4/x8	AltiVec Technology	1023 HCTE FC-CBGA

Part Number	Cores	Typical Power	Speed (MHz)	Ethernet	I/D Cache	L2 Cache	L3 Cache	FPU	SPI	I²C	DUART	PCIe	GPIO	Local Bus	USB	Memory Controller	DDR Data Rate	HW Encryption	XOR	sRIO	Other	PKG
P1011	1	3W (est)	533, 667, 800	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	16	Y	2 USB 2.0	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	TDM, SD/MMC and NAND Boot Options	689 TEPBGAII
P1020	2	3.5W (est)	533, 667, 800	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	16	Y	2 USB 2.0	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	TDM, SD/MMC and NAND Boot Options	689 TEPBGAII
P1012	1	3W (est)	533, 667, 800	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	16	Y	x1 2.0 Full/High (ULPI)	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	Single QUICC Engine, TDM, Utopia -L2 Interface for ATM Support, SD/MMC, 2 x 10/100 Ethernet and NAND Boot Options	689 TEPBGAII
P1021	2	3.5W (est)	533, 667, 800	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	16	Y	x1 2.0 Full/High (ULPI)	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	Single QUICC Engine, TDM, Utopia -L2 Interface for ATM Support, SD/MMC, 2 x 10/100 Ethernet, SD/MMC and NAND Boot Options	689 TEPBGAII
P1013	1	3W (est)	667, 800, 1067	Two 10/100/1000 (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	Up to 87	Y	2 USB 2.0	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	LCD Controller, 2 x SATA, SD/MMC, Advanced Power Management	689 TEPBGAII
P1017	1	2.5W (est)	533, 667, 800	2 x 10/100/1000 (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	3 Controllers, 4 Lanes	32	Y	1 USB 2.0	32-bit DDR3/3L w/ECC	667 MHz	SEC 4.2	Y	-	Data Path Acceleration Architecture Lite	457 WB TePBGA 1
P1022	2	3.5W (est)	667, 800, 1067	Two 10/100/1000 (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	2	Up to 87	Y	2 USB 2.0	32-bit DDR2/3 w/ECC	667 MHz	E Version	Y	-	LCD Controller, 2 x SATA, SD/MMC, Advanced Power Management	689 TEPBGAII
P1023	2	3W (est)	400, 500	2 x 10/100/1000 (SGMII)	32 KB/32 KB	256 KB	-	Double Precision	1	2	1	3 Controllers, 4 Lanes	32	Y	1 USB 2.0	32-bit DDR3/3L w/ECC	667 MHz	SEC 4.2	Y	-	Data Path Acceleration Architecture Lite	457 WB TePBGA 1
P2010	1	4.4W (est)	800, 1000, 1200	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	512 KB	-	Double Precision	1	2	1	3	16	Y	2.0 Full/High (ULPI)	64-/32-bit DDR2/3 w/ECC	800 MHz	E Version	Y	2 x 1 or 1 x 4	SD/MMC and NAND Boot Options	689 TEPBGAII
P2020	2	4.9W (est)****	800, 1000, 1200	3 x 10/100/1000 w/Jumbo Frame Support (SGMII)	32 KB/32 KB	512 KB	-	Double Precision	1	2	1	3	16	Y	2.0 Full/High (ULPI)	64-/32-bit DDR2/3 w/ECC	800 MHz	E Version	Y	2 x 1 or 1 x 4	SD/MMC and NAND Boot Options	689 TEPBGAII
P2040	4	7.4 W (est)	667, 800, 1000, 1200	5 x 10/100/1000 (5x SGMII)	32 KB/32 KB	-	1024 KB	Double Precision	1	4	2	3 Controllers, 5 Lanes	27	Y	2 USB 2.0 w/ PHY	64-bit DDR3/3L w/ECC	1200	SEC 4.2 w/ Secure Boot	Y	2 controllers	Data Path Acceleration Architecture and CoreNet	783-pin Package
P3041	4	8.3W (est)	1200–1500	x2 Frame Managers w/4 x 10/100/1000 (SGMII) and 1 x 10 GbE (XAUI)	32 KB/32 KB	128 KB/core	2 MB Shared w/ECC	Double Precision Single	Quad	4	x3 Gen 2.0	32	Y	2 USB 2.0 w/ PHY	64-/32-bit DDR3/3L w/ECC	1.333 GHz	E Version	Y	2x Gen cont, 1x/2x/4x, Mess Mngr	Data Path Acceleration Architecture, CoreNet, SD/MMC, 2 x SATA	1295 FCPBGA
P4040	4	14W (est)*****	1200, 1333, 1500	x2 Frame Managers w/4 x 10/100/1000 (SGMII) and 1 x 10 GbE (XAUI)	32 KB/32 KB	128 KB/core	2 MB Shared w/ECC	Double Precision	1	4	2	x3 Gen 2.0	32	Y	2.0 Full/High (ULPI)	Dual 64-/32-bit DDR2/3 w/ECC	1.333 GHz	E Version	Y	2 x 2 or 2 x 4	Data Path Acceleration Architecture, CoreNet	1295 FCPBGA
P4080	8	14W (est)******	1200, 1333, 1500	x2 Frame Managers w/4 x 10/100/1000 (SGMII) and 1 x 10 GbE (XAUI)	32 KB/32 KB	128 KB/core	2 MB Shared w/ECC	Double Precision	1	4	2	x3 Gen 2.0	32	Y	2.0 Full/High (ULPI)	Dual 64-/32-bit DDR2/3 w/ECC	1.333 GHz	E Version	Y	2 x 2 or 2 x 4	Data Path Acceleration Architecture, CoreNet	1295 FCPBGA
P5010	1	TBD	1600–2000	5 x 10/100/1000 (SGMII) and 1 x 10 GbE (XAUI)	32 KB/32 KB	512 KB/core	1024	High Performance Single	Quad	4	x3 Gen 2.0	32	Y	2 USB 2.0 w/ PHY	Dual 64-/32-bit DDR3/3L w/ECC	1.333 GHz	E Version	RAID 5/6	2x Gen cont, 1x/2x/4x, Mess Mngr	Data Path Acceleration Architecture, CoreNet, SD/MMC, 2 x SATA	1295 FCPBGA
P5020	2	TBD	1600–2000	5 x 10/100/1000 (SGMII) and 1 x 10 GbE (XAUI)	32 KB/32 KB	512 KB/core	2048	High Performance Single	Quad	4	x3 Gen 2.0	32	Y	2 USB 2.0 w/ PHY	Dual 64-/32-bit DDR3/3L w/ECC	1.333 GHz	E Version,	RAID 5/6	2x Gen cont, 1x/2x/4x, Mess Mngr	Data Path Acceleration Architecture, CoreNet, SD/MMC, 2 x SATA	1295 FCPBGA

* Power varies with frequency, voltage and temperature. Unless otherwise noted, Typical Power is lowest speed bin at 65ºC for range of processors. These numbers are provided as a guide only, please refer to device data sheet for accurate specifications.
** Parallel I/O GPIO pins multiplexed, eight non-multiplexed I/O pins, additional 24 GPIO pins multiplexed with eTSEC, TDM, SPI and DMA
*** Please refer to data sheet as this device has a combination of GPI and GPO
**** 2x cores at 1.2 GHz
***** 4x cores at 1.5 GHz
****** 8x cores at 1.5 GHz