



## Total Solutions from Marvell

Providing a broad spectrum of solutions across a wide range of market segments

### ▶ TABLE OF CONTENTS

APPLICATION PROCESSORS	2-4
COMMUNICATION PROCESSORS	5
EMBEDDED PROCESSORS	6-7
ETHERNET CONTROLLERS	8
GATEWAYS	9
PCI BRIDGES	10
POWER MANAGEMENT	11-12
SAS/SATA STORAGE	13-14
SWITCHING	15-18
SYSTEM CONTROLLERS	19
TRANSCEIVERS	20-21
VIDEO PROCESSORS & HYBRID DEMODULATOR	22
WIRELESS	23
ABOUT MARVELL	24

ARMADA™ Series	Application Processors								
	Frequency	Device Support	Boot Configuration	Security Support	I/O Voltage	Software	Package Size	Ball Pitch	
ARMADA™ Series	ARMADA 100 Family								
	• 88AP162-A0-BJD2C004	400MHz	5 chip selects	Auto-boot configuration	No	1.8v, 3.3v	Linux, Adobe® FlashLite, Android, Windows® CE6.0 r2, r3	15mm x 15mm	0.8mm
	• 88AP166-A0-BJD2C008	800MHz	5 chip selects	Auto-boot configuration	No	1.8v, 3.3v	Linux, Adobe FlashLite, Android, Windows CE6.0 r2, r3	15mm x 15mm	0.8mm
	• 88AP168-B0-BJD2C010	1066MHz	6 chip selects	Auto-boot configuration	No	1.8v, 3.3v	Linux, Adobe FlashLite, Android, Windows CE6.0 r2, r3	15mm x 15mm	0.8mm
	ARMADA 500 Family								
	• 88AP510-X0-BJV2C000	1000MHz	7 chip selects	Auto-boot configuration	No	1.35v, 1.5v, 1.8v, 2.5v, 3.3v	Ubuntu Linux, Android, Adobe Flash 10.1, Windows CE6.0 r2, r3	27mm x 27mm	1.0mm
	ARMADA 600 Family								
	• 88AP688-Z0-BKE2C000	1000MHz	7 chip selects	Auto-boot configuration	Yes	1.35v, 1.5v, 1.8v, 2.5v, 3.3v	Linux, Android, Maemo, Adobe FlashLite, Windows CE6.0 r2, r3, Windows Mobile 6.5/7	12mm x 12mm	0.4mm
• 88AP688-Z0-BKF2C000	1000MHz	7 chip selects	Auto-boot configuration	Yes	1.35v, 1.5v, 1.8v, 2.5v, 3.3v	Linux, Android, Maemo, Adobe FlashLite, Windows CE6.0 r2, r3, Windows Mobile 6.5/7	12mm x 12mm	0.5mm	
PXA™ Series	PXA300 Family								
	• 88AP300-AI-BGK2C624-T161	62MHz	8 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
	• 88AP300-AI-BGK2C624-T162	62MHz	8 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
	• 88AP300-AI-BGK2C624-T163	62MHz	8 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
	• 88AP300-AI-BGK2C208-T164	208MHz	8 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
	• 88AP303-AI-BGF2C624-TN12	624MHz	8 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	19mm x 19mm	0.8mm
	• 88AP303-AI-BGF2C624-TN22	624MHz	8 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	19mm x 19mm	0.8mm
	• 88AP303-AI-BGF2C208-TN22	208MHz	8 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	19mm x 19mm	0.8mm
	• 88AP303-AI-BGF2C624-TN32	624MHz	8 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	19mm x 19mm	0.8mm
	• 88AP303-AI-BGF2C208-TN32	208MHz	8 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	19mm x 19mm	0.8mm
	• 88AP302-A1BBGW1C624-TN02	624MHz	8 chip selects	Auto-boot configuration	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.65mm

\* Note 1: Parts available in temperature range -25C to 85C

PXA Series

Application Processors	Frequency	Device Support	Boot Configuration	Security Support	I/O Voltage	Software	Package Size	Ball Pitch
<b>PXA310 Family</b>								
• 88AP310-A2-BGK2C624-TN02	624MHz	8 chip selects	Auto-boot configuration	No	1.8v - 3.3v	Linux, Windows® CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP310-A2-BGK2C624-TS02	624MHz	8 chip selects	Auto-boot configuration	Yes, trusted	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP312-A2-BGW2C624-TN02	624MHz	8 chip selects	Auto-boot configuration	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.65mm
• 88AP312-A2-BGW2C624-TS02	624MHz	8 chip selects	Auto-boot configuration	Yes, trusted	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.5mm
• 88AP310-A2-BGK2C806-TN02	806MHz	8 chip selects	Auto-boot configuration	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP310-A2-BGK2C806-TS02	806MHz	8 chip selects	Auto-boot configuration	Yes, trusted	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP312-A2-BGW2C806-TN02	806MHz	8 chip selects	Auto-boot configuration	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.5mm
• 88AP312-A2-BGW2C806-TS02	806MHz	8 chip selects	Auto-boot configuration	Yes, trusted	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.65mm
<b>PXA320 Family</b>								
• RTPXA320B2C624-641	624MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C806-337	806MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C806-647	806MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C624-640	624MHz	6 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C806-645	806MHz	6 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C806-646	806MHz	6 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C624-642	624MHz	6 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C624-696	624MHz	6 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2C806-643	806MHz	6 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
• RTPXA320B2E806-644	806MHz	6 chip selects	x8 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm

\* Note 1: Parts available in temperature range -25C to 85C

**PXA**  
Series

Application Processors	Frequency	Device Support	Boot Configuration	Security Support	I/O Voltage	Software	Package Size	Ball Pitch
<b>PXA320 Family (continue)</b>								
• 88AP322-B2-BGWIC624-TN12	624MHz	6 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows® CE, Windows Mobile	15mm x 15mm	0.65mm
• 88AP322-B2-BGWIC806-TN12	806MHz	6 chip selects	x16 NAND	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	15mm x 15mm	0.65mm
• RTPXA320B2C624-641	624MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	14mm x 14mm	0.5mm
<b>PXA270 Family</b>								
• 88AP270MA2	312MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP270MA2	416MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP270MA2	520MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP270MA2	624MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	13mm x 13mm	0.5mm
• 88AP270MA2-BHEIC312	312MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm
• 88AP270MA2-BHEIE312 (Extended Temp)	312MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm
• 88AP270MA2-BHEIC416	416MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm
• 88AP270MA2-BHEIE416 (Extended Temp)	416MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm
• 88AP270MA2-BHEIC520	520MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm
• 88AP270MA2-BHEIC624	624MHz	6 chip selects	x16 NOR	No	1.8v - 3.3v	Linux, Windows CE, Windows Mobile	23mm x 23mm	1.0mm

\* Note 1: Parts available in temperature range -25C to 85C

**PXA**  
Series

Marvell Semiconductor provides the PXA family of cellular FFOS platform solutions for the EDGE and 3G protocols. Marvell's highly integrated cellular products lead the industry with high-tier multi-media FFOS performance at mid-tier BOM pricing.

Please contact your Marvell field sales office for more details on the PXA family of cellular products.

**Discovery™**  
**INNOVATION**  
Series

Embedded Processors	Part Numbers	CPU Base Architecture	I/O Support	Frequency	Number of Issues	Cache	DDR Controller	Voltage
<ul style="list-style-type: none"> <li>• <b>MV78200</b> SoC with Dual-Core Dual-Issue Sheeva™ CPU</li> </ul>	MV78200	ARM®v5TE Dual-Core	4 x GbE 2 x PCIe (1 x4 or 4 x1) 3 x USB, 4 x UART 2 x SATA 32-bit Device bus	800MHz, 1.0GHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D per core L2: 512KB unified per core	32/64-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU-800MHz 1.1V CPU-1.0GHz 1.8V/2.5V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>MV78100</b> SoC with Single-Core Dual-Issue Sheeva CPU</li> </ul>	MV78100	ARMv5TE Single-Core	2 x GbE 2 x PCIe (1 x4 or 4 x1) 3 x USB, 4 x UART 2 x SATA 32-bit Device bus	800MHz, 1.0GHz, 1.2GHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D L2: 512KB unified	32/64-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU-800MHz 1.1V CPU 1.0, 1.2GHz 1.8V/2.5V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>MV76100</b> SoC with Dual-Core Dual-Issue Sheeva CPU</li> </ul>	MV76100	ARMv5TE Single-Core	2 x GbE 2 x PCIe [(1 x4 or 4 x1) + (1 x1)] 3 x USB, 4 x UART 1 x SATA 32-bit Device bus	600MHz, 800MHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D L2: 256KB unified	32/64-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU-800MHz 1.8V/2.5V/3.3V I/O

**KIRKWOOD™**  
**DUO**  
Series

Embedded Processors	Part Numbers	CPU Base Architecture	I/O Support	Frequency	Number of Issues	Cache	DDR Controller	Voltage
<ul style="list-style-type: none"> <li>• <b>88F6321</b> SoC with Dual-Core Dual-Issue Sheeva™ CPU</li> </ul>	88F6321	ARMv5TE Dual-Core	2 x GbE PCIe x1 1 x USB, 2 x UART 8-bit Device bus	600MHz, 800MHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D L2: 256K/Core	32-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU 1.8V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>MV78100</b> SoC with Dual-Core Dual-Issue Sheeva CPU</li> </ul>	88F6322	ARMv5TE Dual-Core	2 x GbE 2 x PCIe x1 2 x USB, 2 x UART 8-bit Device bus	600MHz, 800MHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D L2: 256K/Core	32-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU 1.8V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>MV76100</b> SoC with Dual-Core Dual-Issue Sheeva CPU</li> </ul>	88F6323	ARMv5TE Dual-Core	3 x GbE 2 x PCIe x1 3 x USB, 2 x UART, 1 x SATA 8-bit Device bus	600MHz, 800MHz 1.0GHz	Dual-Issue w/FPU	L1: 32KB-I, 32KB-D L2: 256K/Core	32-bit DDR2-800 with ECC	1.0V Core, 1.0V CPU-800MHz 1.1V CPU-1.0GHz 1.8V/2.5V/3.3V I/O

**KIRKWOOD™**  
Series

Embedded Processors	Part Numbers	CPU Base Architecture	I/O Support	Frequency	Number of Issues	Cache	DDR Controller	Voltage
<ul style="list-style-type: none"> <li>• <b>88F6281</b> SoC with Single-Core Single-Issue Sheeva CPU</li> </ul>	88F6281	ARM®v5TE Single-Core	PCIe x1, 2xGbe, 1 x USB2.0, 2 x SATA, 2xUART, 8-bit Device bus	800MHz, 1.0GHz, 1.2GHz	Single-Issue	L1: 16KB-I, 16KB-D L2: 256KB unified	16-bit DDR2-800	1.0V Core, 1.0V CPU 1.8V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>88F6192</b> SoC with Single-Core Single-Issue Sheeva CPU</li> </ul>	88F6192	ARMv5TE Single-Core	PCIe x1, 2xGbe, 1 x USB2.0, 2 x SATA, 2xUART, 8-bit Device bus	600MHz 800MHz	Single-Issue	L1: 16KB-I, 16KB-D L2: 256KB unified	16-bit DDR2-400	1.0V Core, 1.0V CPU 1.8V/2.5V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>88F6180</b> SoC with Single-Core Single-Issue Sheeva CPU</li> </ul>	88F6180	ARMv5TE Single-Core	PCIe x1, 1xGbe, 1 x USB2.0, 1xUART, 8-bit Device bus	800MHz	Single-Issue	L1: 16KB-I, 16KB-D L2: 256KB unified	16-bit DDR2-400	1.0V Core, 1.0V CPU 1.8V/3.3V I/O
<ul style="list-style-type: none"> <li>• <b>88F6280</b> SoC with Single-Core Single-Issue Sheeva CPU</li> </ul>	88F6280	ARMv5TE Single-Core	1xGbe, 1 x USB2.0, 2xUART, 8-bit Device bus	600MHz 800M Hz 1.0GHz	Single-Issue	L1: 16KB-I, 16KB-D L2: 256KB unified	16-bit DDR2-400	1.0V Core, 1.0V CPU 1.8V/3.3V I/O

**YUKON™**  
Series

Ethernet Controllers	Part Numbers	Media Support	Bus Interface	Integrated On-Chip Buffer	Package Size	Package Type	I-Temp	Software
<ul style="list-style-type: none"> <li>• Yukon FE+ 88E8040 PCI Express Fast Ethernet Controller</li> </ul>	88E8040-A0-NNB2-C000	10/100 BASE-T Copper	x1 PCI Express	3KB Rx 2KB Tx RAM	7mm x 7mm	48QFN	No	Drivers- Windows® 2000, XP/2003, Windows7 and Vista/Server 2008 and Linux
<ul style="list-style-type: none"> <li>• Yukon FE+ 88E8040 PCI Express Fast Ethernet Controller</li> </ul>	88E8040-A0-NNC2-C000	10/100 BASE-T Copper	x1 PCI Express	3KB Rx 2KB Tx RAM	9mm x 9mm	64QFN	No	Drivers- Windows 2000, XP/2003, Windows7 and Vista/Server 2008 and Linux
<ul style="list-style-type: none"> <li>• Yukon Ultra II 88E8057 PCI Express Gigabit Ethernet Controller</li> </ul>	88E8057-A0-NNB2-C000	10/100/1000 BASE-T Copper	x1 PCI Express	16K B Rx 10K B Tx RAM	7mm x 7mm	48QFN	No	Drivers- Windows 2000, XP/2003, Windows7 and Vista/Server 2008 and Linux
<ul style="list-style-type: none"> <li>• Yukon Ultra II 88E8057 PCI Express Gigabit Ethernet Controller</li> </ul>	88E8057-A0-NNC2-C000	10/100/1000 BASE-T Copper	x1 PCI Express	16K B Rx 10K B Tx RAM	9mm x 9mm	64QFN	Yes	Drivers- Windows 2000, XP/2003, Windows7 and Vista/Server 2008 and Linux



LINK@STREET®  
Series

Fast Ethernet Gateway-Routers	CPU	Memory	Port Configuration	Evaluation Board	Cache	GPIO	MAC Size	Power
<ul style="list-style-type: none"> <li>• <b>88E6218</b> 6-Port FE Gateway Router</li> </ul>	150MHz ARM®9 CPU	16/32-bit SDRAM	5 FE PHYs, 1 MII, 1 UART, 1 JTAG	RD-88E6218-SD-1	I&D 8K/8K 4-way	16	1K	2.25W
<ul style="list-style-type: none"> <li>• <b>88E6218R</b> 5-Port FE Gateway Router</li> </ul>	133MHz ARM9 CPU	16-bit SDRAM	5 FE PHYs, 1 UART, 1 JTAG	DB1-88E6218R-1	I&D 8K/8K 4-way	9	1K	2.25W

PCI Express to PCI Bridges	Part Number	Lanes	Max Payload Size	Bus Interface	PCI Bus Type	Reverse Mode	PCI Masters	GPIO
<ul style="list-style-type: none"> <li>• 88SB2211 PCI Express to PCI Bridge</li> </ul>	88SB2211	1	128 Bytes	PCIe to PCI	32-bit, 33MHz	Yes	5	8

DC-DC  
REGULATORS  
Series

Synchronous Buck Regulator	Part Numbers	I <sub>out</sub> (Max)	I <sub>Q3</sub> (I <sub>out</sub> = 0)	V <sub>in</sub>	TOP FET R <sub>DS(ON)</sub> @ 5.0V	BOT FET R <sub>DS(ON)</sub> @ 5.0V	Package Type	Features
• MVPG16	MVPG16-NAE1	1.0A	1.0mA	3.0V to 5.5V	120mΩ	70mΩ	3mm x 4mm DFN-12	1MHz, Shutdown
• 88PG839	88PG839-NAE2	2.0A	25uA	2.7V to 5.5V	120mΩ	80mΩ	3mm x 4mm DFN-12	Enable, PGood, OVP, SS, 2.0 MHz
• MVPG31	MVPG31-NAE1	2.0A	1.0mA	3.0V to 5.5V	120mΩ	70mΩ	3mm x 4mm DFN-12	1MHz, Shutdown
• 88PG877	88PG877-NFB1	5.0A	1.2mA	3.0V to 5.5V	9.5mΩ	7.5mΩ	3mm x 4mm QFN-18	1MHz, Enable, POR, OVP
• 88PH8101	88PH8101-UBB1	Up to 10A	2.5mA	4.5V to 16V	External FET	External FET	TSSOP-16	Enable, PGood, OVP, SS, 500kHz
• 88PH845	88PH845-NFB1	3.0A	2.7mA	4.5V to 16V	70mΩ	35mΩ	3 mm x 4mm QFN-18	Enable, PGood, OVP, SS, 500kHz

Synchronous Buck Regulator + LDO	Part Numbers	I <sub>out</sub> (Max)	I <sub>Q3</sub> (I <sub>out</sub> = 0)	V <sub>in</sub>	TOP FET R <sub>DS(ON)</sub> @ 5.0V	BOT FET R <sub>DS(ON)</sub> @ 5.0V	Package Type	Features
• MVPG15x	MVPG15x-NAE1	1.0A	1.7mA	3.0V to 5.5V	120mΩ	70mΩ	3mm x 4mm DFN-12	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown
• MVPG30x	MVPG30x-NAE1	2.0A	1.7mA	3.0V to 5.5V	120mΩ	70mΩ	3mm x 4mm DFN-12	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown
• 88PG817x	88PG817x-NAM1	1.0A	1.9mA	2.75V to 5.5V	67mΩ	21mΩ	3mm x 3mm QFN-16	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown, POR, OVP
• 88PG827x	88PG827x-NAM1	1.6A	1.9mA	2.75V to 5.5V	67mΩ	21mΩ	3mm x 3mm QFN-16	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown, POR, OVP
• 88PG837x	88PG837x-NAM1	2.0A	1.9mA	2.75V to 5.5V	67mΩ	21mΩ	3mm x 3mm QFN-16	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown, POR, OVP
• 88PG847x	88PG847x-NAM1	3.0A	1.9mA	2.75V to 5.5V	67mΩ	21mΩ	3mm x 3mm QFN-16	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown, POR, OVP
• 88PG849E	88PG849E-NAM2	3.0A	1.9mA	2.75V to 5.5V	67mΩ	21mΩ	3mm x 3mm QFN-16	LDO x Opt: B=3.3V, E = 2.5V 1MHz, Shutdown, POR, OVP
• 88PG8218	88PG8218-NAE2	1.2A	220uA	2.7V to 5.5V	150mΩ	100mΩ	3mm x 4mm DFN-12	250mA LDO, LDO output up to 5V, SS, Enable, 2.0MHz
• 88PG8318 (2 LDO)	88PG8318-NAE2	1.2A	85uA	2.7V to 5.5V	150mΩ	100mΩ	3mm x 4mm DFN-12	2 x 150mA LDO, LDO output 1.8V/2.5V, SS, Enable, 2.0MHz
• 88PW889	88PW889-CBD2	700mA	30uA	2.7V to 5.5V	150mΩ	100mΩ	CSP	100mA LDO, 2.0 MHz, for Mobile applications
• 88PG8111	88PG8111-NXS2	500mA	25uA	2.7V to 5.5V	320mΩ	150mΩ	3mm x 3mm QFN-20	50mA LDO, 2.7 MHz, for Mobile applications

Note 2: Specifications over the -40C to 85C operating temperature ranges are assured by design, characterization, and correlation with statistical process controls.

DC-DC  
REGULATORS  
Series

Dual Synchronous Buck Regulator	Part Numbers	I <sub>out</sub> (Max)	I <sub>Q3</sub> (I <sub>out</sub> = 0)	V <sub>in</sub>	TOP FET R <sub>DS(ON)</sub> @ 5.0V	BOT FET R <sub>DS(ON)</sub> @ 5.0V	Package Type	Features
• 88PG8216	88PG8216-NFE1	1.0A/1.5A	2.1mA	2.75V to 5.5V	81mΩ	37mΩ	3x4 QFN-20	1MHz, Enable, Soft Start, POR, OVP
• 88PG8226	88PG8226-NFE1	1.5A/1.5A	2.1mA	2.75V to 5.5V	81mΩ	37mΩ	3x4 QFN-20	1MHz, Enable, Soft Start, POR, OVP
• 88PG8227	88PG8227-NFE1	1.5A/2.0A	2.1mA	2.75V to 5.5V	81mΩ	37mΩ	3x4 QFN-20	1MHz, Enable, Soft Start, POR, OVP
• 88PG8237	88PG8237-NFE1	2.0A/2.0A	2.1mA	2.75V to 5.5V	81mΩ	37mΩ	3x4 QFN-20	1MHz, Enable, Soft Start, POR, OVP
• 88PW886 (3 buck+3 LDO)	88PW886-NAR2	300mA	90uA	2.7V to 5.5V	333mΩ	210mΩ	4 x 4 QFN-20	3 x LDO, 3 x buck, 1.5MHz, for Mobile applications
• 88PG8211 (2 buck+LDO)	88PG8211-NXS2	500mA	25uA	2.7V to 5.5V	320mΩ	150mΩ	3 x 3 QFN-20	50mA LDO, 2.7 MHz, for Mobile applications

Note 2: Specifications over the -40C to 85C operating temperature ranges are assured by design, characterization, and correlation with statistical process controls.

SATA Storage Controllers	Part Numbers	Port Count	Bus Type	Queuing	Port Multiplier Support	Flash	Marvell RAID Software	Power
• <b>88SE6101</b> PCIe x1 to 1 PATA Controller	88SE6101	1P	PCIe x1	Tag and Native Command	No	No	N/A	600mW
• <b>88SE6111</b> PCIe x1 to 1 SATA 3Gb/s Port and 1 PATA I/O Controller	88SE6111	1S1P	PCIe x1	Tag and Native Command	FIS-Based	No	N/A	800mW
• <b>88SE6121</b> PCIe x1 to 2 SATA 3Gb/s Ports and 1 PATA RAID Controller	88SE6121	2S1P	PCIe x1	Tag and Native Command	FIS-Based	No	RAID 0/I	1.0W
• <b>88SE6145</b> PCIe x1 to 4 SATA 3Gb/s Ports and 1 PATA RAID Controller	88SE6145	4S1P	PCIe x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	RAID 0/I	1.5W
• <b>88SE9128</b> PCIe 2.0 x1 to 2 SATA 6Gb/s Ports and 1 PATA RAID Controller	88SE9128	2S1P	PCIe 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	HW RAID 0/I	1.0W

SAS/SATA Storage Controllers	Part Numbers	Port Count	Bus Type	Queuing	SAS Expander Support	Flash	Target Mode	Marvell RAID Software
• <b>88SE6320</b> PCIe x1 to 2 SAS/SATA 3Gb/s Ports RAID Controller	88SE6320	2	PCIe x1	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I
• <b>88SE6340</b> PCIe x1 to 4 SAS/SATA 3Gb/s Ports RAID Controller	88SE6340	4	PCIe x1	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I
• <b>88SE6440</b> PCIe x4 to 4 SAS/SATA 3Gb/s Ports RAID Controller	88SE6440	4	PCIe x4	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I/10/5
• <b>88SE6445</b> PCIe x4 to 4 SAS/SATA 3Gb/s Ports I/O Controller	88SE6445	4	PCIe x4	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A
• <b>88SE6480</b> PCIe x4 to 8 SAS/SATA 3Gb/s Ports RAID Controller	88SE6480	8	PCIe x4	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I/10/5
• <b>88SE6485</b> PCIe x4 to 8 SAS/SATA 3Gb/s Ports I/O Controller	88SE6485	8	PCIe x4	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A
• <b>88RC8180</b> Dual PCIe x4 to 8 SAS/SATA 3Gb/s Ports Universal Storage Controller	88RC8180	8	Dual PCIe x4	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I/10/5/6
• <b>88SE9480</b> PCIe 2.0 x8 to 8 SAS/SATA 6Gb/s Ports RAID Controller	88SE9480	8	PCIe 2.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	No	RAID 0/I/10/5
• <b>88SE9485</b> PCIe 2.0 x8 to 8 SAS/SATA 6Gb/s Ports I/O Controller	88SE9485	8	PCI-Express 2.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A

SATA Port Multiplier/Multiplexer	Part Numbers	Port Count	Data Rate	Power	Package Size	Package Type	I-Temp	Evaluation Board Part Number
<ul style="list-style-type: none"> <li>• <b>88SM4140</b> 1:4 Serial ATA 3Gb/s Port Multiplier</li> </ul>	88SM4140	5	SATA 3Gb/s	1.67W	14mm x 14mm	80 LQFP		DB-88SM4140
<ul style="list-style-type: none"> <li>• <b>88SM4021</b> 2:1 Serial ATA Fail-Over Multiplexer</li> </ul>	88SM4021	3	SATA 1.5Gb/s	0.88W	9mm x 9mm	48 TQFP		DB-88SM4021

SATA Bridge	Part Numbers	Port Count	Data Rate	Power	Package Size	Package Type	I-Temp	Evaluation Board Part Number
<ul style="list-style-type: none"> <li>• <b>88SA8052</b> SATA/PATA Bridge</li> </ul>	88SA8052	Host or Device	SATA 3Gb/s to PATA 133	0.25W	9mm x 9mm	64 QFN or TQFP	Yes (QFN)	DB-88SA8052-D or DB-88SA8052-H

SAS to SATA Protocol Converter	Part Numbers	SAS Port	SATA port	Data Rate	Internal Flash	Power	Package Size	Package Type
<ul style="list-style-type: none"> <li>• <b>88SF6210B1</b> 3Gb/s SAS to SATA Protocol convertor</li> </ul>	88SF6210	2	1	SAS/SATA 3.0 Gb/s	320KB	1.5 W	12mm x 12mm	196 TFBGA

**PRESTERA® DX**  
Series

DX Series Packet Processors		Part Numbers	Port Configuration	Type	Evaluation Board Part Numbers	Number of Ports	Package Size	Package Type	I-Temp
• <b>Prester-DX107</b> 10-Port Gigabit Ethernet Packet Processor	98DX107-xx-LKJ	10 SGMII	Layer 2/3+	DB-DX107-10G RD-DX107-48F4G	10	14mm x 20mm	128-LQFP	Yes	
• <b>Prester-DX160</b> 16-Port Gigabit Ethernet Packet Processor	98DX160-xx	16 SGMII	Layer 2	RD-DX240-24G	16	31mm x 31mm	458-HSBGA		
• <b>Prester-DX167</b> 16-Port Gigabit Ethernet Packet Processor	98DX167-xx	16 SGMII	Layer 2/3+	RD-DX247-24G	16	31mm x 31mm	458-HSBGA	Yes	
• <b>Prester-DX240</b> 24-Port Gigabit Ethernet Packet Processor	98DX240-xx	24 SGMII	Layer 2	RD-DX240-24G	24	31mm x 31mm	458-HSBGA		
• <b>Prester-DX249</b> 24-Port Gigabit Ethernet with 2 HX Ports Packet Processor	98DX249-xx	24 SGMII 2 HX	Layer 2+	DB-DX249-24G-2HX	26	31mm x 31mm	480-HSBGA		
• <b>Prester-DX253</b> 24-Port Gigabit Ethernet Packet Processor	98DX253-xx	24 SGMII	Layer 2/3+	DB-DX273-24G3XG RD-DX273-48G2XG	24	37.5mm x 37.5mm	788-HSBGA	Yes	
• <b>Prester-DX269</b> 24-Port Gigabit Ethernet with 2 HX/HGS Ports Packet Processor	98DX269-xx	24 SGMII 3 HX/XAUI	Layer 2+	DB-DX269-24G-2HX-IB	27	37.5mm x 37.5mm	788-HSBGA		
• <b>Prester-DX273</b> 24-Port Gigabit Ethernet with 3 HGS Ports Packet Processor	98DX273-xx	24 SGMII 3 XAUI	Layer 2/3+	DB-DX273-24G3XG RD-DX273-48G2XG	27	37.5mm x 37.5mm	788-HSBGA		
• <b>Prester-DX5128</b> 24-Port Gigabit Ethernet with 4 10GE Ports Packet Processor	98DX5128-xx	24 SGMII 4 XAUI	Layer 3+	DB-DX3-6XG-4HGS RD-DX3-48GE-4HGS	28	35mm x 35mm	1138-FCBGA		
• <b>Prester-DX5152</b> 8-Port Gigabit Ethernet/2.5Gigabit Ethernet with 2 10GbE Ports Packet Processor	98DX5152-xx	8 SGMII/2.5GE 2 XAUI	Layer 3+	DB-DX3-6XG-4HGS RD-DX3-48GE-4HGS	10	35mm x 35mm	1138-FCBGA		
• <b>Prester-DX5154</b> 16-Gigabit Ethernet/2.5Gigabit Ethernet with 10GbE Ports Packet Processor	98DX5154-xx	16 SGMII/2.5GE 2 XAUI	Layer 3+	DB-DX3-6XG-4HGS RD-DX3-48GE-4HGS	18	35mm x 35mm	1138-FCBGA		
• <b>Prester-DX8110</b> 10-Port 10Gigabit Ethernet Packet Processor	98DX8110-xx	10 XAUI	Layer 3+	DB-DX3-6XG-4HGS RD-DX3-48GE-4HGS	10	35mm x 35mm	1138-FCBGA		

DX Series Packet Processors with Integrated CPU		Part Numbers	Port Configuration	Type	Evaluation Board Part Numbers	Number of Ports	Package Size	Package Type	I-Temp
• <b>Prester-DX1022</b> 24-Port Fast Ethernet Plus 4-Port FlexLink Packet Processor with 333MHz CPU	98DX1022-xx	3 SSSMII 4 SGMII	Layer 2/3+ Metro	DB-xCAT-24F4GP RD-xCAT-24F4G	28	27mm x 27mm	617-HSBGA	Yes	
• <b>Prester-DX2122</b> 24-Port Fast Ethernet Plus 4-Port FlexLink Packet Processor with 800MHz CPU	98DX2122-xx	3 SSSMII 4 SGMII	Layer 3+ Metro	DB-xCAT-24F4GP RD-xCAT-24F4G	28	27mm x 27mm	617-HSBGA	Yes	
• <b>Prester-DX3005</b> 10-Port Gigabit Ethernet Packet Processor with 333MHz CPU	98DX3005-xx	2 QSGMII 2 SGMII	Layer 2+	DB-xCAT-24G4GP RD-xCAT-48G4G	10	27mm x 27mm	617-HSBGA	No	
• <b>Prester-DX3026</b> 24-Port Gigabit Ethernet Plus 4-Port XG FlexLink Packet Processor with 333MHz CPU	98DX3026-xx	6 QSGMII 2 RXAUI 2 XAUI	Layer 2+	DB-xCAT-24G4GP RD-xCAT-48G4G	28	27mm x 27mm	617-HSBGA	Yes	
• <b>Prester-DX3032</b> 24-Port Gigabit Ethernet Plus 4-Port XG FlexLink Packet Processor with 333MHz CPU	98DX3032-xx	6 QSGMII 4 XAUI	Layer 2/3+ Metro	DB-xCAT-24G4GP RD-xCAT-48G4G	28	27mm x 27mm	617-HSBGA	Yes	
• <b>Prester-DX4122</b> 24-Port Gigabit Ethernet Plus 4-Port XG FlexLink Packet Processor with 800MHz CPU	98DX4122-xx	6 QSGMII 4 XAUI	Layer 3+ Metro	DB-xCAT-24G4GP RD-xCAT-48G4G	28	27mm x 27mm	617-HSBGA	Yes	

**PRESTERA® CX**  
Series

CX Series Packet Processors	Part Numbers	Port Configuration	Type	Evaluation Board Part Numbers	Number of Ports	Package Size	Package Type	I-Temp
• Prestera-CX8248	98CX8248	48 RXAUI	L3+	RD-CX-48XG DB-CX-48XG	48	40mm x 40mm	HFCBGA	
• Prestera-CX82234	98CX8234	32 RXAUI + 4 * 40GbE	L3+	RD-CX-48XG DB-CX-48XG	32	40mm x 40mm	HFCBGA	

**INTELLIGENT**  
**ETHERNET MACS**

Gigabit Ethernet MAC Controllers	Part Numbers	Port Configuration	Number of Ports	MAC Speed	Uplink Port	Jumbo Frames	Package Size	# Pins
• Prestera-MV82104-Cx 4x1 Gigabit Ethernet MAC Controller	MV82104-Cx	SGMII	4	10/100/1000 Mbps	SPI 4.2	Yes	35mm x 35mm	672
• Prestera-MV82110-Cx 10x1 Gigabit Ethernet MAC Controller (SGMII <-> SPI-4.2)	MV82110-Cx	SGMII	10	10/100/1000 Mbps	SPI 4.2	Yes	35mm x 35mm	672
• Prestera-MV82210-Cx 1x10 Gigabit Ethernet MAC Controller (XAUI <-> SPI-4.2)	MV82210-Cx	XAUI	1	10 Gbps	SPI 4.2	Yes	35mm x 35mm	672

Secure MAC/PHY	Part Numbers	Port Configuration	Number of Ports	MAC Speed	Uplink Port	Jumbo Frames	Package Size	# Pins
• Prestera X2220 Integrated 10GbE XAUI/XFI Secure MAC/PHY with LinkCrypt™ technology	98X2220	XAUI/XFI	4	10 Gbps	XAUI	Yes	21mm x 21mm	400



LINK@STREET®  
Series

Link Street Fast Ethernet Switches	Number of Ports	Port Configuration	Power	I-Temp	Evaluation Board	Audio Video Bridging/ IEEE 1588	MAC Size	IEEE 802.1Q Dynamic VLANs Supported
• <b>88E6031</b> 3-Port Fast Ethernet Switch	3	2 PHYs + 1 MII or 1 PHY + 2 MII	0.4W		DB-88E6061-I		1K	16
• <b>88E6035</b> 3-Port Fast Ethernet Switch	3	2 PHYs + 1 MII or 1 PHY + 2 MII	0.4W		DB-88E6065-I		1K	64
• <b>88E6060</b> 6-Port Fast Ethernet Switch	6	5 PHYs + 1 MII or 4 PHYs + 2 MII	0.7W	Yes	DB-88E6060-I		1K	0
• <b>88E6061/B</b> 6-Port Fast Ethernet Switch	6	5 PHYs + 1 MII or 4 PHYs + 2 MII	0.7W	Yes	DB-88E6061-I		1K	16
• <b>88E6063</b> 7-Port Fast Ethernet Switch	7	5 PHYs + 2 MII	0.9W	Yes	DB-88E6063-I		2K	16
• <b>88E6065 /B</b> 6-Port Fast Ethernet Switch	6	5 PHYs + 1 MII or 4 PHYs + 2 MII	0.7W	Yes	DB-88E6065-I		1K	64
• <b>88E6083</b> 10-Port Fast Ethernet Switch	10	8 PHYs + 2 MII	1.4W	Yes	RD-88E6083-I		2K	16
• <b>88E6085</b> 10-Port Fast Ethernet Switch	10	8 PHYs + 2 MII	1.2W	Yes	DB-88E6085-I		2K	64

Link Street Fast + Gigabit Ethernet Switches	Number of Ports	Port Configuration	Power	I-Temp	Evaluation Board	Audio Video Bridging/ IEEE 1588	MAC Size	IEEE 802.1Q Dynamic VLANs Supported
• <b>88E6045</b> 4 FE + 2 GbE Ethernet Switch	6	4 FE PHYs + GMII/SGMII	1.0W		DB-88E6095-8F3GC		1K	64
• <b>88E6046</b> 4 FE + 2 GbE Ethernet Switch	6	4 FE PHYs + GMII/RGMII/SGMII	1.0W	Yes	DB-88E6046-I		1K	64
• <b>88E6092/95</b> 8 FE + 3 GbE Ethernet Switch	11	8 FE PHYs + GMII/SGMII	1.5W	88E6095 only	DB-88E6095-8F3GC		8K	256
• <b>88E6095F</b> 8 FE + 3 GbE Ethernet Switch	11	8 FE PHYs + GMII/SGMII	1.5W	Yes	DB-88E6095-8F3GC		8K	256
• <b>88E6096/97</b> 8 FE + 3 GbE Ethernet Switch	11	8 FE PHYs + GMII/RGMII/ SGMII	1.5W	88E6097 only	DB-88E6097-8F3GC		8K	4096
• <b>88E6097F</b> 8 FE + 3 GbE Ethernet Switch	11	8 FE PHYs + GMII/RGMII/ SGMII	1.5W	Yes	DB-88E6097-8F3GC		8K	4096

**LINK@STREET®**  
Series

Link Street Gigabit Ethernet Switches	Number of Ports	Port Configuration	Power	I-Temp	Evaluation Board	Audio Video Bridging/ IEEE 1588	MAC Size	IEEE 802.1Q Dynamic VLANs Supported
• <b>88E6121</b> 3-Port Gigabit Ethernet Switch	3	2 GbE PHYs + 1 GMII	1.5W	Yes	DB-88E6122-6G		1K	64
• <b>88E6122</b> 6-Port Gigabit Ethernet Switch	6	2 GbE PHYs + 3 SerDes + 1 GMII	2.0W	Yes	DB-88E6122-6G		1K	64
• <b>88E6123</b> 3-Port Gigabit Ethernet Switch	3	2 GbE PHYs + 1 GMII/RGMII/ SerDes	1.1W		DB-88E6123-1		1K	64
• <b>88E6131</b> 8-Port Gigabit Ethernet Switch	8	3 GbE PHYs + 4 SerDes + 1 GMII	2.7W	Yes	DB-88E6131-8G		1K	256
• <b>88E6152/55</b> 6-Port Gigabit Ethernet Switch	6	6 SerDes or 5 SerDes + 1 GMII	1.2W		DB-88E6185-10G		8K	256
• <b>88E6161</b> 6-Port Gigabit Ethernet Switch	6	5 GbE PHYs + 1 GMII/RGMII/ SerDes or 4 GbE PHYs + 2 GMII/RGMII/SerDes	2.5W	Yes	DB-88E6161-1		1K	64
• <b>88E6165</b> 6-Port Gigabit Ethernet Switch	6	5 GbE PHYs + 1 GMII/RGMII/ SerDes or 4 GbE PHYs + 2 GMII/RGMII/SerDes	2.5W	Yes	DB-88E6165-1		8K	4096
• <b>88E6171R</b> 7-Port Gigabit Ethernet Switch	7	5 GbE PHYs + 2 RGMII/MII	2.5W		DB1-88E6171R-1		1K	64
• <b>88E6171</b> 7-Port Gigabit Ethernet Switch	7	5 GbE PHYs + 2 GMII/RGMII/MII	2.5W		DB1-88E6171R-1		1K	64
• <b>88E6175R</b> 7-Port Gigabit Ethernet Switchh	7	5 GbE PHYs + 2 RGMII/MII	2.5W		DB1-88E6175R-1		8K	4096
• <b>88E6175</b> 7-Port Gigabit Ethernet Switch	7	5 GbE PHYs + 2 GMII/RGMII/MII	2.5W		DB1-88E6175R-1		8K	4096
• <b>88E6182/85</b> 10-Port Gigabit Ethernet Switch	10	10 SerDes or 9 SerDes + 1 GMII	1.5W	88E6185 only	DB-88E6185-10G		8K	256
• <b>88E6350R</b> 7-Port AVB Gigabit Ethernet Switch	7	5 GbE PHYs + 2 RGMII/MII	2.5W	Yes	DB1-88E6350R-1	Yes	1K	64
• <b>88E6350</b> 7-Port AVB Gigabit Ethernet Switch	7	5 GbE PHYs + 2 GMII/RGMII/MII	2.5W		DB1-88E6350R-1	Yes	1K	64
• <b>88E6351</b> 7-Port AVB Gigabit Ethernet Switch with Sync-E	7	5 GbE PHYs + 2 GMII/RGMII/MII	2.5W	Yes	DB1-88E6350R-1	Yes	8K	4096

Discovery™ VI Series	System Controllers								
	Part Numbers	CPU Interface	I/O Support	Memory	Device Support	On-Board SRAM	Frequency	Voltage	
<ul style="list-style-type: none"> <li>Discovery VI MV64660 PowerPC System Controllers</li> </ul>	MV64660	PowerPC 60x and MPX	1 x 32-Bit PCI-X 1 x 4 PCIe, 1x4 OR 4x1 PCIe 3 x GbE (2 x SGMII), 2 x UART, 2 x USB, 1x SATA	DDR2 64/72-bits 533MHz Up to 16GB	16-Bit, 166MHz, 5 Chip Selects	N/A	240 MHz	1.2V Core, 1.8V/2.5V/3.3V I/O	

Discovery™ V Series	System Controllers								
	Part Numbers	CPU Interface	I/O Support	Memory	Device Support	On-Board SRAM	Frequency	Voltage	
<ul style="list-style-type: none"> <li>Discovery V MV64560 PowerPC System Controllers</li> </ul>	MV64560	PowerPC 60x and MPX	1 x 64-Bit PCI-X, 1 x 32-Bit PCI-X OR 1 x 4 PCIe, 3 x GbE (2 x SGMII), 2 x UART, 2 x USB	DDR/DDR2 64/72-bits 400MHz Up to 8GB	16-Bit, 166MHz, 5 Chip Selects	N/A	200MHz	1.2V Core, 1.8V/2.5V/3.3V I/O	

Discovery™ III Series	System Controllers								
	Part Numbers	CPU Interface	I/O Support	Memory	Device Support	On-Board SRAM	Frequency	Voltage	
<ul style="list-style-type: none"> <li>Discovery III MV64460 PowerPC System Controllers</li> </ul>	MV64460	PowerPC 60x and MPX	2 x 64-Bit PCI-X 3 x GbE, 2 x MPSC	DDR 400MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	2Mb	200MHz	1.8V Core, 2.5V/ 3.3V I/O	
<ul style="list-style-type: none"> <li>Discovery III MV64461 PowerPC System Controllers</li> </ul>	MV64461	PowerPC 60x and MPX	2 x 32-Bit PCI-X 2 x GbE, 2 x MPSC	DDR 400MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	2Mb	200MHz	1.8V Core, 2.5V/ 3.3V I/O	
<ul style="list-style-type: none"> <li>Discovery III MV64462 PowerPC System Controllers</li> </ul>	MV64462	PowerPC 60x and MPX	1 x 64-Bit PCI-X 1 x 32-Bit PCI-X 1 x GbE, 2 x MPSC	DDR 400MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	N/A	200MHz	1.8V Core, 2.5V/ 3.3V I/O	
<ul style="list-style-type: none"> <li>Discovery III MV64440 MIPS System Controllers</li> </ul>	MV64440	MIPS 64-Bit SysAD	2 x 32-Bit PCI-X 2 x GbE, 2 x MPSC	DDR 400 MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	2Mb	200MHz	1.8V Core, 2.5V/ 3.3V I/O	
<ul style="list-style-type: none"> <li>Discovery III MV64441 MIPS System Controllers</li> </ul>	MV64441	MIPS 64-Bit SysAD	2 x 32-Bit PCI-X 2 x GbE, 2 x MPSC	DDR 400MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	2Mb	200MHz	1.8V Core, 2.5V/ 3.3V I/O	
<ul style="list-style-type: none"> <li>Discovery III MV64442 MIPS System Controllers</li> </ul>	MV64442	MIPS 64-Bit SysAD	1 x 64-Bit PCI-X 1 x 32-Bit PCI-X 1 x GbE, 2 x MPSC	DDR 400MHz, Up to 8GB	32-Bit, 133MHz, 5 Chip Selects	N/A	200MHz	1.8V Core, 2.5V/ 3.3V I/O	

**ALASKA**  
Series

Gigabit Ethernet (GbE) PHY	LINE INTERFACES				MAC INTERFACES								FEATURES						
	Number of Ports	10/100/1000BASE-T	100BASE-FX	1000BASE-X	SGMII	MII	GMI	RGMII	SGMII	QSGMII	TBI	RTBI	SerDes	JTAG	RoHS 6/6, Green*	Production	Package Type	I-Temp	
<b>Single-Port Devices</b>																			
• Alaska 88E1111 10/100/1000BASE-T PHY with multiple MAC Interfaces	1	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	R	Yes	Multiple Packages	Yes
• Alaska 88E1112 10/100/1000BASE-T PHY with Dual SERDES/SGMII	1	Yes	Yes	Yes	Yes				Yes					Yes		R	Yes	64-QFN	Yes
• Alaska 88E1118R 10/100/1000BASE-T PHY with RGMII	1	Yes						Yes						Yes	R	Yes	64-QFN		
• Alaska 88E1119R 10/100/1000BASE-T PHY with GMI	1	Yes												Yes	G	Yes	72-QFN	Yes	
• Alaska 88E1310 10/100/1000BASE-T PHY with RGMII	1	Yes				Yes	Yes	Yes							G	Yes	48-QFN		
<b>Dual-Port Devices</b>																			
• Alaska 88E1121R 10/100/1000BASE-T PHY with RGMII	2	Yes						Yes						Yes	R	Yes	100-TQFP		
• Alaska 88E1322 10/100/1000BASE-T PHY with SGMII, SyncE, IEEE 1588 Time Stamping, Copper/Fiber Autotmedia Detect	2	Yes	Yes	Yes	Yes				Yes					Yes	G	Yes	196-TFBGA	Yes	
<b>Quad-Port Devices</b>																			
• Alaska 88E1145 10/100/1000BASE-T PHY with SGMII /SERDES	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	R	Yes	Multiple Packages	Yes
• Alaska 88E1340S 10/100/1000BASE-T PHY with SGMII, QSGMII, Copper/Fiber Autotmedia Detect, SyncE, IEEE 1588 Time-stamping	4	Yes	Yes	Yes	Yes				Yes	Yes				Yes	G	Yes	196-TFBGA	Yes	

\* RoHS 6/6 + Halogen-Free

Fast Ethernet (FE) PHY	LINE INTERFACES		MAC INTERFACES						FEATURES						
	Number of Ports	10/100BASE-T	100BASE-FX	MII	RMII	SMII	SSSMII	RGMI	DDR-SSSMII	JTAG	RoHS 6/6, Green*	Production	Package Type	I-Temp	
Single-Port Devices															
• <b>88E3015/16/18</b> 10/100BASE-T Fast Ethernet PHY	1	Yes	Yes	Yes					Yes		Yes	R	Yes	Multiple Packages	Yes
• <b>88E3019</b> 10/100BASE-T Fast Ethernet PHY	1	Yes		Yes	Yes				Yes		G	Yes	32-QFN		
Octal-Port Devices															
• <b>88E3082/3083</b> 10/100BASE-T Octal PHY	8	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	R	Yes	Multiple Packages	Yes

\* RoHS 6/6 + Halogen-Free

**ALASKA X**  
Series

10 Gigabit Ethernet PHY	LINE INTERFACES		MAC INTERFACES		MODULES			FEATURES							
	Number of Ports	10GBASE-SR/ER/LR	10GBASE-SW/EW/LW	XAUI	XGMII	XENPAK	X2	XFP	Programmable LED	JTAG	RoHS 6/6	Production	Package Type	I-Temp	
Single-Port Devices															
• <b>Alaska X 88X2010</b> XAUI to XFI Serial 10G SERDES (LAN PHY)	1	Yes		Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	256-TFBGA	
• <b>Alaska X 88X2011</b> XAUI to XFI Serial 10G SERDES (WAN & LAN PHY)	1	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	256-TFBGA	Yes
• <b>Alaska X 88X2012</b> XAUI to XFI Serial 10G SERDES (LAN PHY)	1	Yes			Yes				Yes	Yes	Yes	Yes	Yes	256-TFBGA	
• <b>Alaska X 88X2013</b> XAUI to XFI Serial 10G SERDES (WAN & LAN PHY)	1	Yes	Yes		Yes				Yes	Yes	Yes	Yes	Yes	256-TFBGA	
XGXS Devices															
• <b>Alaska X 88X2040</b> 10GE XAUI and 4 Channel 3.125 Gigabit per second SERDES	1			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	256-TFBGA	
• <b>Alaska X 88X2080</b> Dual XAUI to XGMII SERDES	2			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	448-PBGA	

\* RoHS 6/6 + Halogen-Free

**KYOTO**  
Series

Video Processors	Part Numbers	Input Ports	Output Ports	OSD Support	Embedded CPU	Memory Interface	External FLASH	Voltage
<ul style="list-style-type: none"> <li>• <b>88DE2710</b> Adaptive Digital Video Format Converter with Qdeo™ Video Processing</li> </ul>	88DE2710	3	2	External	None	32bit DDR1 @ 200Mhz	Not required	1.2V core, 3.3V/2.5V I/O
<ul style="list-style-type: none"> <li>• <b>88DE2750</b> Adaptive Digital Video Format Converter with Qdeo™ Video Processing</li> </ul>	88DE2750	1	1	External	None	'-2' 16bit DDR2 @ 200Mhz '-4' 16bit DDR2 @ 400Mhz	Not required	1.0V core, 3.3V/1.8V I/O

**BALI**  
Series

Hybrid Demodulator	Part Numbers	Input Ports	Output Ports	OSD Support	Embedded CPU	Memory Interface	External FLASH	Voltage
<ul style="list-style-type: none"> <li>• <b>88DE8020</b> Single-Chip Hybrid Demodulator for DVB-T/C/NTSC/PAL/SECAM</li> </ul>	88DE8020	1	1	Not Applicable	None	Not required	Not required	1.2V core, 3.3V

Wireless	Part Number	Wireless Technologies Support	Interface Support	Package Type	Package Size	Ball Pitch	Embedded CPU	I-Temp	Evaluation Board Part Numbers
<ul style="list-style-type: none"> <li>• <b>88W8686</b> Single-Chip 802.11b/g</li> </ul>	88W8686	802.11b/g	SDIO, GSPI	QFN, CSP	8x8 & Chip Scale	400um, 500um	Yes	Yes	RD-88W-SD-8686GJ-C3
<ul style="list-style-type: none"> <li>• <b>88W8688</b> Single-Chip 802.11 a/b/g + BT 3.0 + HS</li> </ul>	88W8688	802.11 a/b/g + BT 3.0 + HS	SDIO, GSPI, HS-UART	TFBGA, CSP	6x10 & Chip Scale	400um, 500um	Yes	Yes	RD-88W-GS-8686GJ-C3 RD-88W-SD-8688AJ-D2
<ul style="list-style-type: none"> <li>• <b>88W8786</b> Single-Chip 802.11n/b/g</li> </ul>	88W8786	802.11n/b/g	SDIO, USB	QFN	8x8	400um	Yes	Yes	RD-88W-USB-8786-A1
<ul style="list-style-type: none"> <li>• <b>88W8366 / 88W8063</b> 3x3 802.11 a/b/g/n</li> </ul>	88W8366 88W8063	802.11 a/b/g/n	PCIe	TFBGA (88W8366) VFBGA (88W8063)	8x8 (88W8366) 7x11	500um (88W8366) 650um (88W8063)	Yes	Yes	CD-88W-AP95-A0
<b>AVASTAR™ Series</b>									
AVASTAR 8700 Family									
<ul style="list-style-type: none"> <li>• <b>88W8787</b> Single-Chip 802.11 a/b/g/n 1x1 + BT 3.0 + HS + FMTx/Rx</li> </ul>	88W8787	802.11 a/b/g/n 1x1 + BT 3.0 + HS + FMTx/Rx	SDIO, UART	TFBGA, CSP	7x7 & Chip Scale	500um, 260um	Yes	Yes	
<ul style="list-style-type: none"> <li>• <b>88W8790</b> Single-Chip BT 3.0 + HS + FMTx/Rx</li> </ul>	88W8790	BT 3.0 + HS + FMTx/Rx	SDIO, GSPI, UART	TFBGA, CSP	5x5 & Chip Scale	500um, 280um	Yes	Yes	



## MARVELL: A NEXT GENERATION SEMICONDUCTOR COMPANY

Founded in 1995, Marvell Technology Group Ltd. has operations worldwide and approximately 5,000 employees. Marvell's U.S. operating subsidiary is based in Santa Clara, California and Marvell has international design centers located in the U.S., Europe, Israel, Singapore and China. A leading fabless semiconductor company, Marvell ships over one billion chips a year. Marvell's expertise in microprocessor architecture and digital signal processing, drives multiple platforms including high volume storage solutions, mobile and wireless, networking, consumer and green products. World class engineering and mixed-signal design expertise helps Marvell deliver critical building blocks to its customers, giving them the competitive edge to succeed in today's dynamic market.

## KEY MARKETS

- **Storage Solutions:** Marvell is the market leader in data storage silicon solutions spanning consumer, mobile, desktop and enterprise market segments. The company's storage solutions enable customers to engineer high-volume products for hard disk drives, tape drives, optical disks, and solid state drives, as well as host adaptors and bridges.
- **Mobile Connectivity Solutions:** From laptops to smart phones to gaming devices and from the home to the office to a hotel room: wireless and mobile technologies now touch nearly every facet of our lives. Marvell offers industry leading power management for extended battery life with exceptional ease of use and security. Marvell solutions power the complete value chain of mobile and wireless devices, providing full-featured, media-rich experiences and robust services to everyone from the business user to the consumer.
- **Enterprise Solutions:** Designed for networking and stand-alone applications, Marvell enterprise products include packet processors, switching, Ethernet transceivers and controllers, and system-on-chip solutions based on Sheeva™ CPU technology. Marvell enables reliable, resilient service delivery with industry leading performance for enterprise applications such as routers, switches, laser printers, media servers, point of service and network attached storage devices.
- **Consumer Solutions:** Through technologies that span WLAN, system controllers, power management, award-winning Qdeo™ video processing, PC connectivity, storage solutions and embedded CPUs, Marvell delivers a broad range of technologies for the digital home.
- **Green Technology:** Marvell is committed to developing green technology as both a supplier and user of technology to save energy and to help reduce our collective carbon footprint. With our digital Power Factor Correction (PFC) controllers, Marvell is using its power management expertise to take the lead in energy-efficient technology for AC/DC power supplies and low power LED and CFL lighting solutions.

## THE MARVELL ADVANTAGE

Marvell products come with complete reference designs, which include board layout designs, software, manufacturing diagnostic tools, documentation and other items, to assist customers with product evaluation and production. Marvell collaborates closely with customers to develop and deliver new leading-edge products for quick time-to-market. Marvell uses world-class semiconductor foundry and packaging services to reliably deliver high-volume and low-cost total solutions. For more information, visit our web site at [www.marvell.com](http://www.marvell.com).

Copyright © 2010. Marvell International Ltd. All rights reserved. Marvell, the Marvell logo, Alaska, Feroceon, Link Street, Pretera, Virtual Cable Tester, and Yukon are registered trademarks of Marvell or its affiliates. Armada, Avanta, Avastar, Kirkwood, Pantheon, Qdeo, and Sheeva are trademarks of Marvell or its affiliates. Other names and brands may be claimed as the property of others. PN# Marvell PSG April\_2010 Public-002 5/10

## Key Corporate Facts

**Founded:**  
1995

**Stock Symbol:**  
MRVL (NASDAQ)

**Chairman, President and Chief Executive Officer:**  
Dr. Sehat Sutardja

**Worldwide Employment:**  
Approximately 5,000

**Net Revenues:**  
\$2.95 billion (fiscal 2009, ended January 31, 2009)

**Marvell Technology Group Ltd.**  
Canon's Court  
22 Victoria Street  
Hamilton HM 12, Bermuda

**Marvell US Headquarters:**  
Marvell Semiconductor, Inc.  
5488 Marvell Lane  
Santa Clara, CA 95054  
Phone: 408-222-2500

**Marvell Asia Headquarters:**  
Marvell Asia Pte, Ltd.  
No. 8 Tai Seng Link  
Singapore 534158  
Phone: (65) 6756-1600

**Marvell European Headquarters:**  
Marvell Switzerland Sarl  
Route de Pallatex 17  
CH-1163 Etoy  
Switzerland

**Website:**  
[www.marvell.com](http://www.marvell.com)