



2018 Marvell Product Selector Guide

TOTAL SOLUTIONS FROM MARVELL

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

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ARMADA Series

Embedded Processors

Part Numbers	CPU Base Architecture	Ethernet	PCIe	USB	UART	SATA	Device Bus	Frequency	Cache	DDR Controller	Package Size	Package Type	Ball Pitch	I-Temp	Evaluation Board	Software
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ARMADA 7K/8K

ARMADA 7020

88F7020	ARM®v8 Cortex A72 Dual Core	2x 1/2.5GBE 1x 10GbE	1x PCIe3.0 x4/x2/x1 2x PCIe3.0 x1	2x USB3/ USB2	4x UART	2 x SATA 3	8/16 bit Device bus	800MHz , 1.0GHz, 1.2GHz, 1.6GHz	L1: 32KB/32K B L2: 1MB unified	32-bit ECC	17mm x 17mm	429L-FCBGA	0.65mm	Yes	DB-88F7040A-BP-DDR4	U-Boot, Linux, OpenWR T, Yocto
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ARMADA 7040

88F7040	ARM®v8 Cortex A72 Quad Core	2x 1/2.5GBE 1x 10GbE	1x PCIe3.0 x4/x2/x1 2x PCIe3.0 x1	2x USB3/ USB2	4x UART	2 x SATA 3	8/16 bit Device bus	800MHz , 1.0GHz, 1.2GHz, 1.4GHz	L1: 32KB/32K B L2: 1MB unified	32-bit ECC	17mm x 17mm	429L-FCBGA	0.65mm	Yes	DB-88F7040A-BP-DDR4	U-Boot, Linux, OpenWR T, Yocto
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ARMADA 8020

88F8020	ARM®v8 Cortex A72 Dual Core	4x 1/2.5GBE 2x 10GbE	1x PCIe3.0 x4/x2/x1 1x PCIe3.0 x1/ 2x 4x PCIe3 x1	3x USB3/ USB2	4x UART	4 x SATA 3	8/16 bit Device bus	1.0GHz, 1.2GHz, 1.6GHz, 2.0GHz	L1: 32KB/32K B L2: 1MB unified	32/64-bit ECC	24mm x 24mm	816 - FCBGA	0.8mm	Yes	DB-88F8040A-BP-DDR4	U-Boot, Linux, OpenWR T, Yocto
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ARMADA 8040

88F8040	ARM®v8 Cortex A72 Quad Core	4x 1/2.5GBE 2x 10GbE	1x PCIe3.0 x4/x2/x1 1x PCIe3.0 x1/ 2x 4x PCIe3 x1	3x USB3/ USB2	4x UART	4 x SATA 3	8/16 bit Device bus	1.0GHz, 1.2GHz, 1.6GHz, 2.0GHz	L1: 32KB/32K B L2: 1MB unified	32/64-bit ECC	24mm x 24mm	816 - FCBGA	0.8mm	Yes	DB-88F8040A-BP-DDR4	U-Boot, Linux, OpenWR T, Yocto
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ARMADA XP

MV78230

MV78230	ARM®v7 Dual Core	3 x GbE	2 x PCIe 2.0 2 x PCIe 2.0 (1 x4 or 4 x1 and 1 x1)	3 x USB2	4 x UART	2 x SATA 2	8/16 bit Device bus	1.06GHz, 1.2GHz, 1.33GHz, 1.6GHz	L1: 32KB-I, 32KB-D; L2: 1MB unified	32bit ECC DDR3/L-1600 with ECC	23mm x 23mm	732-FCBGA	0.65mm		DB-MV784MP-GP	u-boot, Linux, vxWork s and others
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MV78260

MV78260	ARM®v7 Dual Core	4 x GbE	3 x PCIe 2.0 (2 x4 or 4 x1, 1 x4 /x1)	3 x USB2	4 x UART	2 x SATA 2	8/16/3 2 bit Device bus	1.06GHz, 1.2GHz, 1.33GHz, 1.6GHz	L1: 32KB-I, 32KB-D; L2: 1MB unified	32/64bit ECC DDR3/L-1600 with ECC	23mm x 23mm	732-FCBGA	0.65mm		DB-MV784MP-GP	u-boot, Linux, vxWork s and others
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MV78460

MV78460	ARM®v7 Quad Core	4 x GbE	4 x PCIe 2.0 (2 x4 or 4 x1 and 2x4/ x1)	3 x USB2	4 x UART	2 x SATA 2	8/16/3 2 bit Device bus	1.2GHz, 1.33GHz, 1.6GHz	L1: 32KB-I, 32KB-D; L2: 2MB unified	32/64bit ECC DDR3/L-1600 with ECC	23mm x 23mm	732-FCBGA	0.65mm		DB-MV784MP-GP	u-boot, Linux, vxWork s and others
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ARMADA 38x

ARMADA Series

Embedded Processors

ARMADA Series	Part Numbers	CPU Base Architecture	Ethernet	PCIe	USB	UART	SATA	Device Bus	Frequency	Cache	DDR Controller	Package Size	Package Type	Ball Pitch	I-Temp	Evaluation Board	Software
ARMADA 380	88F6810	ARM [®] v7 Cortex A9 Single Core with NEON	2 x 1/2.5GbE	3 x PCIe 2.0 x1	2 x USB3/USB2 and 1 x USB2	2x UART	2 x SATA 3	8/16 bit Device bus	1.0GHz, 1.33GHz, 1.6GHz	L1: 32KB/32KB L2: 512MB unified	16-bit, ECC DDR3/ L-1600 and DDR4-1800	17x17mm	372-TFBGA	0.8mm	Yes	DB-88F6820-GP-A0; DB-88F6820-AP-A0	U-Boot, Linux, OpenWR T, Yocto, FreeBSD
ARMADA 381	88F6811	ARM [®] v7 Cortex A9 Single Core with NEON	1 x 1/2.5GbE	3 x PCIe 2.0 x1	1 x USB3/USB2 and 1 x USB2	2x UART	2 x SATA 3	8/16 bit Device bus	1.0GHz, 1.33GHz	L1: 32KB/32KB L2: 1MB unified	16-bit, ECC DDR3/ L-1333	14x14mm	298-TFBGA	0.65mm	No	DB-88F6821-BP-A0	U-Boot, Linux, OpenWR T, Yocto, FreeBSD
ARMADA 382	88F6821	ARM [®] v7 Cortex A9 Dual Core with NEON	1 x 1/2.5GbE	3 x PCIe 2.0 x1	1 x USB3/USB2 and 1 x USB2	2x UART	2 x SATA 3	8/16 bit Device bus	1.0GHz, 1.33GHz	L1: 32KB/32KB L2: 1MB unified	16-bit, ECC DDR3/ L-1333	14x14mm	298-TFBGA	0.65mm	No	DB-88F6821-BP-A0	U-Boot, Linux, OpenWR T, Yocto, FreeBSD
ARMADA 385	88F6820	ARM [®] v7 Cortex A9 Dual Core with NEON	3 x 1/2.5GbE	4 x PCIe 2.0 x1 or 1 x4	2 x USB3/USB2 and 1 x USB2	2x UART	2 x SATA 3	8/16 bit Device bus	1.0GHz, 1.33GHz, 1.6GHz, 1.8GHz, 2.0GHz	L1: 32KB/32KB L2: 1MB unified	16/32-bit, ECC DDR3/ L-1600 and DDR4-1800	17x17mm	372-TFBGA	0.8mm	Yes	DB-88F6820-GP-A0; DB-88F6820-AP-A0	U-Boot, Linux, OpenWR T, Yocto, FreeBSD
ARMADA 388	88F6828	ARM [®] v7 Cortex A9 Dual Core with NEON	3 x 1/2.5GbE	4 x PCIe 2.0 x1 or 1 x4	2 x USB3/USB2 and 1 x USB2	2x UART	4 x SATA 3	8/16 bit Device bus	1.0GHz, 1.33GHz, 1.6GHz, 1.8GHz, 2.0GHz	L1: 32KB/32KB L2: 1MB unified	16/32-bit, ECC DDR3/ L-1600 and DDR4-1800	17x17mm	372-TFBGA	0.8mm	Yes	DB-88F6820-GP-A0	U-Boot, Linux, OpenWR T, Yocto, FreeBSD
ARMADA 375																	
88F6720	88F6720	ARM [®] v7 Cortex A9 Dual Core with NEON	2 x GbE	2 x PCIe 2.0 x1	1 x USB3/USB2 and 1 x USB2	2x UART	2 x SATA 2	8/16 bit Device bus	800MHz, 1.0GHz	L1: 32KB-I, 32KB-D; L2: 256KB unified	16/32-bit, DDR3/ L-1066	19mm x 19mm	511-TFBGA	0.65mm	Yes	DB-88F6720-A0	u-boot, Linux

ARMADA Series

Embedded Processors

ARMADA LP

Part Numbers	CPU Base Architecture	Ethernet	PCIe	USB	UART	SATA	Device Bus	Frequency	Cache	DDR Controller	Package Size	Package Type	Ball Pitch	I-Temp	Evaluation Board	Software
88F3710	ARM [®] v8 Cortex A53 Single Core with NEON	2 x 1/2.5G bE	1 x PCIe 2.0 x1	1 x USB3/ USB2 and 1 x USB2	1x UART	1 x SATA 3	None	800MHz , 1.0GHz and 1.2GHz	L1: 32KB-I, 32KB-D; L2: 256KB unified	16 bit DDR3/3L/ 4	10.5m m x11.5m m	271L TFBGA	0.5mm	Yes	DB-88F3720-DDR3-1	u-boot, Linux
88F3720	ARM [®] v8 Cortex A53 Dual Core with NEON	2 x 1/2.5G bE	1 x PCIe 2.0 x1	1 x USB3/ USB2 and 1 x USB2	1x UART	1 x SATA 3	None	800MHz , 1.0GHz and 1.2GHz	L1: 32KB-I, 32KB-D; L2: 256KB unified	16 bit DDR3/3L/ 4	10.5m m x11.5m m	271L TFBGA	0.5mm	Yes	DB-88F3720-DDR3-1	u-boot, Linux

LINK STREET[®] Series

Gateways

CPU	Memory	Port Configuration	Evaluation Board	Cache	GPIO	MAC Size	Power	Package Size	Package Type	Priority, 4 Queues per Port	QoS IEEE 802.1p	IEEE 802.1Q Dynamic VLANs Supported	IEEE 802.1D Spanning Tree Support	I-Temp
Link Street 88E6218 6-Port FE Gateway Router	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	24mm x 24mm	216-QFP	Yes	No	Yes	
Link Street 88E6218R 5-Port FE Gateway Router	133MHz ARM [®] 9 CPU	16-bit SDRAM	5 FE PHYs, 1 UART, 1 JTAG	DB1-88E6218R-1	I&D 8K/8K 4- way	9	1K	2.25W	14mm x 20mm	128-QFP	Yes	No	Yes	
Link Street 88E7251 6-Port FE AVB Gateway Router	400MHz ARM [®] 9 CPU	8-bit DDR2/ DDR3	5 FE PHYs, 1 MII, 1 UART, 1 JTAG, USB, SDIO, I2S/ TDM Audio	RD1-88E7251-1	I&D 16K/16K 4-way	16	1K	1.0W	14mm x 20mm	128-QFP	Yes	64	Yes	
Link Street 88E7221	400MHz ARM [®] 9 CPU	16-bit DDR2/ DDR3	2 FE PHYs, 1 MII, 1 UART, 1 JTAG, USB, SDIO, I2S/ TDM Audio	RD1-88E7221-1	I&D 16K/16K 4-way	16	1K	0.7W	14mm x 20mm	128-QFP	Yes	64	Yes	

EZ Connect

Microcontrollers

88MW300

Microcontroller with Wi-Fi connectivity

88MW302

Microcontroller with Wi-Fi connectivity

88MB300

Microcontroller with BT/BLE

Processor	Frequency	Connectivity	Memory	execute-In-Place	Security	DMA	Clock	Timers	Digital Interfaces	Analog	GPIOs	Debug	Package
ARM Cortex-M4F with MPU	200 MHz	802.11 b/g/n 1x1	ROM: 128KB, SRAM: 512KB, Always-On SRAM: 4KB	Yes	Secure Boot, AES engine, WLAN TKIP/AES	32x channels	On-chip RTC	2x GPT with LED PWM, Watch Dog	I2C (2x), UART (3x), SSP/SPI (3x), I2S (3x), QSPI (with 32KB Flash-cache)	ADC, DAC, Analog Comparator	Up to 35	JTAG/SWD	68-pin QFN 8x8 mm
ARM Cortex-M4F with MPU	200 MHz	802.11 b/g/n 1x1	ROM: 128KB, SRAM: 512KB, Always-On SRAM: 4KB	Yes	Secure Boot, AES engine, WLAN TKIP/AES	32x channels	RTC	4x GPT with LED PWM, Watch Dog	I2C (2x), UART (3x), SSP/SPI (3x), I2S (3x), QSPI (with 32KB Flash-cache), USB OTG	ADC, DAC, Analog Comparator	Up to 50	JTAG/SWD	88-pin QFN 10x10 mm
ARM Cortex-M3 with MPU	128 MHz	Bluetooth 4.2, BDR/EDR BLE	ROM: 320KB, SRAM: 512KB	No	Bluetooth AES	6x channels	RTC	2x GPT, Watch Dog	I2C (2x), UART (2x), SSP/SPI (2x), I2S/PCM (2x), QSPI 16x16 Keyscan controller, Touch-button module, Trackball controller	ADC, DAC, Analog Comparator	Up to 32	JTAG/SWD	48-pin QFN, 69-bump eWLP

SATA Storage Controllers

Storage Switching

Part Numbers	Port Count	Bus Type	Queuing	Port Multiplier Support	Flash	Marvell Firmware	Power	Package Size	Package Type	I-Temp	Ball Pitch	Evaluation Board Part Number
88SE9345 PCIe 2.0x4 to 4 SATA 6Gb/s Ports Without RAID	4S	PCI-Express 2.0x4	Tag and Native Command	Yes	Flash BIOS I/F	N/A	-5W	19mm x 19mm	481-TFBGA	No	0.8mm	EV1-88SE9345
88SE9230 PCIe 2.0x2 to 4 SATA 6Gb/s Ports RAID Controller	4S	PCI-Express 2.0x2	Tag and Native Command	FIS-Based	Flash BIOS I/F	HW RAID 0/1	1w	9mm x 9mm	76-QFN	No	0.4mm	EV1-88SE9230
88SE9235 PCIe 2.0x2 to 4 SATA 6Gb/s Ports Without RAID	4S	PCI-Express 2.0x2	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	1w	9mm x 9mm	76-QFN	No	0.4mm	EV1-88SE9235
88SE9215 PCIe 2.0x1 to 4 SATA 6Gb/s Ports Without RAID	4S	PCI-Express 2.0x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	1w	9mm x 9mm	76-QFN	No	0.4mm	EV1-88SE9215
88SE9170 PCIe 2.0x1 to 2 SATA 6Gb/s Ports Without RAID	2S	PCI Express 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	0.8w	7mm x 7mm	56-QFN	Yes	0.4mm	EV1-88SE9170
88SE9182 PCIe 2.0x2 to 2 SATA 6Gb/s Ports Without RAID	2S	PCI-Express 2.0x2	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	0.8w	7mm x 7mm	56-QFN	Yes	0.4mm	EV1-88SE9182
88SE9130 PCIe 2.0x1 to 2 SATA 6Gb/s Ports RAID controller	2S	PCI-Express 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	HW RAID 0/1	1W	9mm x 9mm	76-QFN	No	0.4mm	EV1-88SE9130
88SE9128 PCIe 2.0x1 to 2 SATA 6Gb/s Ports (1 PATA Port) RAID controller	2S 1P	PCI-Express 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	HW RAID 0/1	1W	9mm x 9mm	76-QFN	No	0.4mm	EV1-88SE9128
88SE9120 PCIe 2.0x1 to 2 SATA 6Gb/s Ports (1 PATA Port) Without RAID	2S 1P	PCI-Express 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	1W	9mm x 9mm	76-QFN	Yes	0.4mm	EV1-88SE9120
88SE9125 PCIe 2.0x1 to 2 SATA 6Gb/s Ports Without RAID	2S	PCI-Express 2.0 x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	1W	9mm x 9mm	76-QFN	Yes	0.4mm	EV1-88SE9125

SATA Storage Controllers

Storage Switching

88SE1475

PCIe 3.0x8 to 16 SATA 6Gb/s Ports Without RAID

88SE9171

PCIe 2.0x1 to 1 SATA 6Gb/s Port

Part Numbers	Port Count	Bus Type	Queueing	Port Multiplier Support	Flash	Marvell Firmware	Power	Package Size	Package Type	I-Temp	Ball Pitch	Evaluation Board Part Number
88SE1475	16S	PCI-Express 3.0 x8	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	9W	21mm x 21mm	625 HFCBGA	No	0.8mm	EV1-88SE1475
88SE9171	1S	PCI-Express 2.0x1	Tag and Native Command	FIS-Based	Flash BIOS I/F	N/A	0.8w	7mm x 7mm	56-QFN	Yes	0.4mm	EV1-88SE9171

SAS/SATA Storage Controllers

Storage Switching

88RC9580

PCIe 2.0x8 to 8 SAS/SATA 6Gb/s Ports RAID Controller

88SE9485

PCIe 2.0 x8 to 8 SAS/SATA 6Gb/s Ports I/O Controller

88SE9445

PCIe 2.0 x4 to 4 SAS/SATA 6Gb/s Ports I/O Controller

88SE1495

PCIe 3.0x8 to 16 Ports 12Gb/s SAS or 6Gb/s SATA Without RAID

88SE1485

PCIe 3.0x8 to 8 Ports 12Gb/s SAS or 6Gb/s SATA Without RAID

Part Numbers	Port Count	Bus Type	Queueing	SAS Expander Support	Flash	Target Mode	Marvell RAID Software	Power	Package Size	Package Type	I-Temp	Ball Pitch	Evaluation Board Part Number
88RC9580	8	PCI-Express 2.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A	-8W	27mm x 27mm	676-FCBGA		1.0mm	DB1-88RC9580
88SE9485	8	PCI-Express 2.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	No	N/A	-6W	23mm x 23mm	484-HSBGA		1.0mm	HA2VA6800m-RC1Vxx
88SE9445	4	PCI-Express 2.0 x4	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A	-5W	19mm x 19mm	481-TFBGA		0.8mm	EV1-88SE9445
88SE1495	16	PCI-Express 3.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A	9.5W	21mm x 21mm	625 HFCBGA		0.8mm	EV1-88SE1485
88SE1485	8	PCI-Express 3.0 x8	Tag and Native Command	Yes	Flash BIOS I/F	Yes	N/A	7.5W	21mm x 21mm	625 HFCBGA		0.8mm	EV1-88SE1485

SATA Port Multiplier/Multiplexer

Storage Switching

88SM9715

1 Port to 5 Port 6Gb/s SATA Port Multiplier With Enclosure Management

88SM9705

1 Port to 5 Port 6Gb/s SATA Port Multiplier

88SM9602

1 Port to 2 Port 6Gb/s SATA Port

88SM4140

1:4 Serial ATA 3Gb/s Port Multiplier

Part Numbers	Port Count	Data Rate	Power	Package Size	Package Type	I-Temp	Evaluation Board Part Number
88SM9715	6	SATA 6Gb/s	0.88W	10mm x 10mm	84-QFN	Yes	EV1-88SM9715
88SM9705	6	SATA 6Gb/s	0.88W	10mm x 10mm	84-QFN	Yes	EV1-88SM9705
88SM9602	3	SATA 6Gb/s	0.50W	6mm x 6mm	48-MQFN		EV1-88SM9602
88SM4140	5	SATA 3Gb/s	1.6W	12mm x 12mm	80-LQFP		DB1-88SM4140C1-8087

SATA Bridge

Storage Switching

88SA8052

SATA/PATA Bridge

Part Numbers	Port Count	Data Rate	Power	Package Size	Package Type	I-Temp	Evaluation Board Part Number
88SA8052	Host or Device	SATA 3Gb/s to PATA 133	0.25W	9mm x 9mm	64-QFN or TQFP	Yes (QFN)	DB-88SA8052-D, DB-88SA8052-H

SAS to SATA Protocol Converter

Storage Switching

	Part Number	SAS Port	SATA port	Data Rate	Internal Flash	Power	Package Size	Package Type	I-Temp	Evaluation Board Part Number
88SF9210 6Gb/s SAS to SATA Protocol Converter	88SF9210	2	2	SAS/SATA 6.0 Gb/s	N/A	1.35W	10mm x 10mm	84-QFN		DB1-88SF9210
88SF9110 6Gb/s SAS to SATA Protocol Converter	88SF9110	2	1	SAS/SATA 6.0 Gb/s	N/A	1.20W	10mm x 10mm	84-QFN		DB1-88SF9110

Link Street® - Fast Ethernet Switches

SOHO Switching

88E6020
4-Port FE Switch

88E6070
5-Port FE Switch

88E6071
5-Port FE Switch

88E6085
10-Port FE Switch

88E6065/B
6-Port FE Switch

Port Configuration	Number of Ports	2.5G	Number of (R)XAUI	SGMII / 100Base X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX
2 PHYs 2 MII/RMII	4	0	0	0	0	1	2	2	2	0	1
5 PHYs	5	0	0	0	0	0	0	0	5	0	1
5 PHYs 2 RMII (or 1 MII/RGMII)	7	0	0	0	0	2	1	2	5	0	1
8 PHYs 2 MII	10	0	0	0	0	0	2	0	8	0	0
5 PHYs 1 MII or 4 PHYs 2 MII	6	0	0	0	0	0	2	2	5	0	2

Link Street® - Fast Gigabit Ethernet Switches

SOHO Switching

88E6046
6-Port FE+GE Switch

Port Configuration	Number of Ports	2.5G	Number of (R)XAUI	SGMII / 100Base X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX
4 FE PHYs GMII/RGMII/SGMII	6	0	0	2	1	0	2	0	4	0	0

Link Street® - Fast Gigabit Ethernet Switches

SOHO Switching

Port Configuration	Number of Ports	2.5G	Number of (R)XAU	SGMII / 100Base X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX
4 FE PHYs 1 GE PHY 1 Serdes 1 RGMII/MII/RMII 1 GMII/RGMII/MII/RMII	7	0	0	1	1	2	2	2	5	1	1
8 FE PHYs GMII/RGMII/SGMII	11	0	0	3	1	1	2	0	8	0	0
8 FE PHYs GMII/RGMII/SGMII	11	0	0	3	2	1	2	0	8	0	8
8 FE PHYs 1 RGMII/MII/RMII 2 2.5G Serdes/SGMII	11	2	0	2	0	1	1	1	8	0	0

Link Street® - Gigabit Ethernet Switches

SOHO Switching

Port Configuration	Number of Ports	2.5G	Number of (R)XAU	SGMII / 100Base-X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX	
4 GE PHYs 1 RGMII/MII/RMII 1 2.5G/1G SERDES	6	1	0	1	0	1	1	1	1	4	4	0
6 SerDes or 5 SerDes 1 GMII	6	0	0	6	1	0	1	0	0	0	0	0

Link Street[®] - Gigabit Ethernet Switches

SOHO Switching

88E6352
7-Port AVB GE Switch

88E6321
7-Port AVB GE Switch

88E6185
10-Port GE Switch

88E6390
11-Port AVB GE Switch, 8 GE PHYs + 1 RGMII/MII/RMII + 2 2.5G SerDes/SGMII

88E6122
6-Port GE Switch

88E6131
8-Port GE Switch

Port Configuration	Number of Ports	2.5G	Number of (R)XAUI	SGMII / 100Base X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX
5 GE PHYs 1 SerDes 1 RGMII/MII/RMII 1 GMII/RGMII/MII/RMII	7	0	0	1	1	2	2	2	5	5	1
2 GE PHYs 3 RGMII/MII/RGMII 2 SerDes/SGMII	7	0	0	2	1	3	3	3	2	2	2
10 SerDes or 9 SerDes 1 GMII	10	0	0	10	1	0	1	0	0	0	0
8 GE PHYs 1 RGMII/MII/RMII 2 2.5G SerDes/SGMII	11	2	0	2	0	1	1	1	8	8	0
2 GE PHYs 3 SerDes 1 GMII	6	0	0	3	1	0	1	0	2	2	3
3 GE PHYs 4 SerDes 1 GMII	8	0	0	4	1	0	1	0	3	3	4

Link Street[®] - Gigabit 10G Ethernet Switches

SOHO Switching

88E6390X
11-Port AVB GE+10G Switch

Port Configuration	Number of Ports	2.5G	Number of (R)XAUI	SGMII / 100Base X	GMII	RGMII	MII	RMII	100Base T	100Base T	100Base FX
8 GE PHYs 1 RGMII/MII/RMII 2 XAUI/RXAUI	11	2	2	8	0	1	1	1	8	8	0

PRESTERA® DX

Switching

Part Numbers

Port Configuration

Type

Evaluation Boards

Number of Ports

Package Size

Package Type

I-Temp

DX Series

Prestera-DX107
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

Prestera-DX160
16-Port Gigabit Ethernet Packet Processor

98DX160-xx

16 SGMII

Layer 2

RD-DX240-24G

16

31mm x 31mm

458-HSBGA

Prestera-DX167
16-Port Gigabit Ethernet Packet Processor

98DX167-xx

16 SGMII

Layer
2/3

RD-DX247-24G

16

31mm x 31mm

458-HSBGA

Yes

Prestera-DX240
24-Port Gigabit Ethernet Packet Processor

98DX240-xx

24 SGMII

Layer 2

RD-DX240-24G

24

31mm x 31mm

458-HSBGA

Prestera-DX249
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

Prestera-DX253
24-Port Gigabit Ethernet Packet Processor

98DX253-xx

24 SGMII

Layer
2/3DB-DX273-24G3XG, RD-
DX273-48G2XG

24

37.5mm x
37.5mm

788-HSBGA

Yes

Prestera-DX269
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

Prestera-DX273
24-Port Gigabit Ethernet with 3 HGS Ports Packet Processor

98DX273-xx

24 SGMII, 3 XAUI

Layer
2/3DB-DX273-24G3XG, RD-
DX273-48G2XG

27

37.5mm x
37.5mm

788-HSBGA

Prestera-DX5128
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

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PRESTERA® DX

Switching

	Part Numbers	Port Configuration	Type	Evaluation Boards	Number of Ports	Package Size	Package Type	I-Temp
Presteria-DX8110 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	
Presteria-DXx24 24-Port Gigabit Ethernet Packet Processor	98DX324-A0-LKJ2C000, 98DX224-A0-LKJ2C000	6 QSGMII	Layer 2	RD-DX-24G-A RD-DX-22GE2C-A	24	14mm x 20mm	LQFP	No
Presteria-DXx16 16-Port Gigabit Ethernet Packet Processor	98DX316-A0-LKJ2C000, 98DX216-A0-LKJ2C000	4 QSGMII	Layer 2	RD-DX-16UNM	16	14mm x 20mm	LQFP	No
Presteria-DXx08 8-Port Gigabit Ethernet Packet Processor	98DX308-A0-LKJ2C000, 98DX208-A0-LKJ2C000	2 QSGMII	Layer 2	RD-DX-8G-A	8	14mm x 20mm	LQFP	No

PRESTERA® CX

Switching

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

Intelligent Ethernet MAC

Switching

Part Numbers
Port Configuration
Number of Ports
MAC Speed
Uplink Port
Jumbo Frames
Package Size
Pins
Package Type
I-Temp
Ball Pitch
Evaluation Boards

Gigabit Ethernet MAC Controllers

Prestera-MV82104-Cx
4x1 GE Gigabit Ethernet MAC Controller

MV82104-Cx SGMII 4 10/100/1000 Mbps SPI 4.2 Yes 35mm x 35mm 672 HSBGA 1.0mm

Prestera-MV82110-Cx
10x1 GE Gigabit Ethernet MAC Controller (SGMII <-> SPI-4.2)

MV82110-Cx SGMII 10 10/100/1000 Mbps SPI 4.2 Yes 35mm x 35mm 672 HSBGA 1.0mm

Prestera-MV82210-Cx
1x10 GE Gigabit Ethernet MAC Controller (XAUI <-> SPI-4.2)

MV82210-Cx XAUI 1 10 Gbps SPI 4.2 Yes 35mm x 35mm 672 HSBGA 1.0mm

Secure MAC/PHY

Prestera X2220
Integrated 10GbE XAUI/XFI Secure MAC/PHY with LinkCrypt technology

98X2220 XAUI/XFI 4 10 Gbps XAUI Yes 21mm x 21mm 400 FCBGA 1.0mm

Fast Ethernet (FE) PHY

Transceivers

Number of Ports
Optical (Line)
MACSec (LinkCrypt)
I-Temp
1-Step PTP (1588 v2)
10/100BASE-T
100BASE-FX
Mac Interfaces
Core Voltage
Digital I/O
Analog Voltage
Internal Regulator
Virtual Cable Tester
Programmable LED
RoHS 6/6, Green*
JTAG
Package Type

Single-Port Devices

88E3015 10/100BASE-T Fast Ethernet PHY	1	Yes	No	No	No	Yes	Yes	MII, RGMII	1.2V	2.5V/3.3V	2.5V	Yes	Yes	Yes	R	No	56-QFN
88E3016 10/100BASE-T Fast Ethernet PHY	1	Yes	No	No	No	Yes	Yes	RGMII	1.2V	2.5V/3.3V	2.5V	Yes	Yes	Yes	R	Yes	64-QFN
88E3018 10/100BASE-T Fast Ethernet PHY	1	Yes	No	Yes	No	Yes	Yes	MII, RGMII	1.2V	2.5V/3.3V	2.5V	Yes	Yes	Yes	R	Yes	64-QFN
88E3019 10/100BASE-T Fast Ethernet PHY	1	No	No	No	No	Yes	No	MII, RMII, RGMII	1.2V	2.5V/3.3V	2.5V	No	Yes	Yes	G	No	32-QFN

Octal-Port Devices

88E3082 10/100BASE-T Octal PHY	8	Yes	No	Yes	No	Yes	Yes	RMII, SMII, SSSMII, DDR-SSSMII	1.5V	2.5V/3.3V	2.5V	Yes	Yes	Yes	R	Yes	224-TFBGA
88E3083 10/100BASE-T Octal PHY	8	Yes	No	No	No	Yes	Yes	SMII, SSSMII, DDR-SSSMII	1.5V	2.5V/3.3V	2.5V	Yes	Yes	Yes	R	Yes	128-LQFP

1-Gigabit Ethernet (ALASKA®)

Transceivers

Number of Ports
Optical (Line)
MACSec (LinkCrypt)
1-Temp
1-Step PTP (1588 v2)
2-Step PTP
SyncE
BASE-T Speeds (CU)
Optical Line Interfaces (SGMII)
Mac Interfaces
Energy Efficient Ethernet
Core Voltage
Digital I/O
Analog Voltage
Internal Regulator
Integrated Passives
Reference Clock
JTAG
Package Type

Single Port Devices

Alaska 88E1518
EEE 10/100/1000BASE-T PHY with RGMII

Alaska 88E1514P
EEE 10/100/1000BASE-T PHY with SGMII, Copper/
Fiber Autmedia Detect and Low-Latency (1Step-PTP)
1588 v2 support

Alaska 88E1514
EEE 10/100/1000BASE-T PHY with SGMII, Copper/
Fiber Autmedia Detect

Alaska 88E1512P
EEE 10/100/1000BASE-T PHY with RGMII, SGMII,
Copper/Fiber Autmedia Detect and Low-Latency
(1Step-PTP) 1588 v2 support

Alaska 88E1512
EEE 10/100/1000BASE-T PHY with RGMII, SGMII
Copper/Fiber Autmedia Detect

Alaska 88E1510Q
EEE 10/100/1000BASE-T PHY with RGMII and Low-
Latency (1Step-PTP) 1588 v2 support

Alaska 88E1510P
EEE 10/100/1000BASE-T PHY with RGMII and Low-
Latency (1Step-PTP) 1588 v2 support

Alaska 88E1510
EEE 10/100/1000BASE-T PHY with RGMII

1	No	No	No	No	Yes	Yes	10M/100M/1G	No	RGMII	Yes	1.0V	1.8V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	48-QFN
1	No	No	No	Yes	Yes	Yes	10M/100M/1G	No	SGMII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	56-QFN
1	No	No	No	No	Yes	Yes	10M/100M/1G	No	SGMII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	56-QFN
1	Yes	No	Yes	Yes	Yes	Yes	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	RGMII, SGMII, MII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	56-QFN
1	Yes	No	Yes	No	Yes	Yes	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	RGMII, SGMII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	56-QFN
1	No	No	Yes	Yes	Yes	Yes	10M/100M/1G	No	RGMII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	48-QFN
1	No	No	Yes	Yes	Yes	Yes	10M/100M/1G	No	RGMII, MII	Yes	1.0V	1.8V/2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	48-QFN
1	No	No	Yes	No	Yes	Yes	10M/100M/1G	No	RGMII	Yes	1.0V	2.5V/3.3V	1.8V/3.3V	Switch-cap Regulator	Yes	25 MHz	No	48-QFN

1-Gigabit Ethernet (ALASKA®)

Transceivers

Alaska 88E1112

10/100/1000BASE-T PHY with Dual SERDES/SGMII

Alaska 88E1111

10/100/1000BASE-T PHY with multiple MAC Interfaces

Quad-Port Devices

Alaska 88E1548P

EEE 100/100/1000BASE-T PHY with QSGMII

Alaska 88E1548M

EEE 100/100/1000BASE-T PHY with SGMII plus MACSec, Automedia Detect

Alaska 88E1548

EEE 100/100/1000BASE-T PHY with QSGMII

Alaska 88E1545M

EEE 100/100/1000BASE-T PHY with QSGMII plus MACSec

Alaska 88E1545

EEE 100/100/1000BASE-T PHY with QSGMII

Alaska 88E1543M

EEE 100/100/1000BASE-T PHY with SGMII plus MACSec

Alaska 88E1543

EEE 100/100/1000BASE-T PHY with SGMII

Comprehensive Ethernet Switch Feature Matrix																			
Port Configuration		Security & Protocols			Timing & Sync			Speed & Standards		Interface & Ethernet		Power & Voltage		Signal & I/O		Regulation & Passives		Clock & Package	
Number of Ports	Optical (Line)	MACSec (LinkCrypt)	1-Temp	1-Step PTP (1588 v2)	2-Step PTP	SyncE	BASE-T Speeds (Cu)	Optical Line Interfaces (SGMII)	Mac Interfaces	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Internal Regulator	Integrated Passives	Reference Clock	JTAG	Package Type	
Features	1	Yes	No	Yes	No	No	No	10M/100M/1G	100BASE-FX, 1000BASE-X, SFP	SGMII	No	1.2V	2.5V	2.5V	No	No	25 MHz	No	64-QFN
	1	Yes	No	Yes	No	No	No	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	RGMII, SGMII, GMII, MII, TBI, RTBI	No	1.0V/1.2V	2.5V	2.5V	No	No	25, 125 MHz	Yes	Multiple Packages
Performance	4	Yes	Yes	Yes	Yes	Yes	Yes	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	SGMII, QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	15mm x 15mm 196-pin TFBGA
	4	Yes	Yes	No	No	Yes	Yes	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	SGMII, QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	196-TFBGA
Reliability	4	Yes	No	No	No	No	No	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	SGMII, QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	15mm x 15mm 196-pin TFBGA
	4	No	Yes	No	No	No	No	10M/100M/1G	No	QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	128-LQFP
Scalability	4	No	No	No	No	No	No	10M/100M/1G	No	QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	128-LQFP
	4	Yes	Yes	No	No	No	No	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	SGMII	Yes	1.0V	2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	128-LQFP
Flexibility	4	Yes	No	No	No	No	No	10M/100M/1G	SGMII, 100BASE-FX, 1000BASE-X, SFP	SGMII	Yes	1.0V	2.5V/3.3V	1.8V/3.3V	No	Yes	25, 125, 156.25 MHz	Yes	128-LQFP

1-Gigabit Ethernet (ALASKA®)

Transceivers

Alaska 88E1540M

EEE 100/100/1000BASE-T PHY with QSGMII plus MACSec

Number of Ports	Optical (Line)	MACSec (LinkCrypt)	I-Temp	1-Step PTP (1588 v2)	2-Step PTP	SyncE	BASE-T Speeds (Cu)	Optical Line Interfaces (SGMII)	Mac Interfaces	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Internal Regulator	Integrated Passives	Reference Clock	JTAG	Package Type	
4	No	Yes	No	No	No	Yes	Yes	10M/100M/1G	No	QSGMII	Yes	1.0V	1.2V/1.8V/2.5V/3.3V	1.8V/3.3V	No	Yes		Yes	196-TFBGA

Octal-Port-Devices

Alaska 88E1685

EEE 10/100/1000BASE-T PHY with QSGMII

8	No	No	No	No	No	No	No	10M/100M/1G	No	QSGMII	Yes	0.9V	1.2V/1.8V/2.5V/3.3V	1.5V/1.8V	No	Yes	125 MHz	Yes	128-LQFP
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Alaska 88E1680M

EEE 10/100/1000BASE-T PHY with QSGMII plus MACSec, PTP, SyncE

8	No	Yes	No	Yes	Yes	Yes	Yes	10M/100M/1G	No	QSGMII	Yes	0.9V	1.2V/1.8V/2.5V/3.3V	1.5V/1.8V	No	Yes	125, 156.25 MHz	Yes	128-LQFP
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Alaska 88E1680

EEE 10/100/1000BASE-T PHY with QSGMII, MACSec, PTP, SyncE

8	No	No	No	No	Yes	Yes	Yes	10M/100M/1G	No	QSGMII	Yes	0.9V	1.2V/1.8V/2.5V/3.3V	1.5V/1.8V	No	Yes	125, 156.25 MHz	Yes	128-LQFP
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10-Gigabit Ethernet (ALASKA® X)

Transceivers

Alaska X 88X3340P

Quad EEE 10/100/1G/2.5G/5G/10GBASE-T PHY with XFI, MACSec, PTP

Number of Ports	Optical (Line)	MACSec (LinkCrypt)	I-Temp	1-Step PTP (1588 v2)	2-Step PTP	SyncE	Supported Speeds	Host Interfaces	Optical Interface	Optical Module Types	Direct Attach Copper	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Reference Clock	JTAG	Package Type
4	Yes	Yes	No	Yes	Yes	Yes	10G, 5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAUI, 5GBASE-R, 2500BASE-X, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	484-HFCBGA

Copper (Base-T) PHYs

10-Gigabit Ethernet
(ALASKA® X)

Transceivers

10-Gigabit Ethernet (ALASKA® X)		Transceivers																		
		Number of Ports	Optical (Line)	MACSec (LinkCrypt)	I-Temp	1-Step PTP (1588 v2)	2-Step PTP	SyncE	Supported Speeds	Host Interfaces	Optical Interface	Optical Module Types	Direct Attach Copper	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Reference Clock	JTAG	Package Type
Alaska X 88X3340 Quad EEE 10/100/1G/2.5G/5G/10GBASE-T PHY with XFI		4	Yes	No	No	No	No	Yes	10G, 5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAUI, 5GBASE-R, 2500BASE-X, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	484-HFCBGA
Alaska X 88X3310P Single EEE 10/100/1G/2.5G/5G/10GBASE-T PHY with XFI, MACSec, PTP		1	Yes	Yes	No	Yes	Yes	Yes	10G, 5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAUI, XAUI, 5GBASE-R, 2500BASE-X, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	168-HFCBGA
Alaska X 88X3310 Single EEE 10/100/1G/2.5G/5G/10GBASE-T PHY with XFI		1	Yes	No	No	No	No	Yes	10G, 5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAUI, XAUI, 5GBASE-R, 2500BASE-X, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	168-HFCBGA
Alaska X 88X3240P Quad EEE 10/100/1G/10GBASE-T PHY with XFI, MACSec, PTP		4	Yes	Yes	No	Yes	Yes	Yes	10G, 1G, 100M, 10M	XFI, RXAUI, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 2.0V, 2.5V	50, 156.25 MHz	Yes	484-HFCBGA
Alaska X 88X3240 Dual EEE 10/100/1G/10GBASE-T PHY with XFI		4	Yes	No	No	No	No	Yes	10G, 1G, 100M, 10M	XFI, RXAUI, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 2.0V, 2.5V	50, 156.25 MHz	Yes	484-HFCBGA
Alaska X 88X3220P Dual EEE 10/100/1G/10GBASE-T PHY with XFI, MACSec, PTP		2	Yes	Yes	No	Yes	Yes	Yes	10G, 1G, 100M, 10M	XFI, RXAUI, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 2.0V, 2.5V	50, 156.25 MHz	Yes	256-HFCBGA
Alaska X 88X3220 Dual EEE 10/100/1G/10GBASE-T PHY with XFI		2	Yes	No	No	No	No	Yes	10G, 1G, 100M, 10M	XFI, RXAUI, SGMII	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	Yes	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 2.0V, 2.5V	50, 156.25 MHz	Yes	256-HFCBGA
Fiber/Backplane PHYs																				
Alaska X 88X2340P Quad-10G PHY with MacSec and PTP		4	Yes	Yes	No	Yes	Yes	No	10G, 1G	XFI	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	No	0.80V	1.2V/1.5V/1.8V/2.5V /3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	484-HFCBGA

10-Gigabit Ethernet
(ALASKA® X)

Transceivers

10-Gigabit Ethernet (ALASKA® X)																				
Transceivers		Number of Ports	Optical (Line)	MACSec (LinkCrypt)	1-Temp	2-Step PTP (1588 v2)	SyncE	Supported Speeds	Host Interfaces	Optical Interface	Optical Module Types	Direct Attach Copper	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Reference Clock	JTAG	Package Type	
Alaska X 88X2320P Dual-10G PHY with MacSec and PTP		2	Yes	Yes	No	Yes	Yes	No	10G, 1G	XFI	XFI/SFI	10GBASE-SR/ER/LR, 1000BASE-SX/LX	Yes	No	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	256-HFCBGA
Alaska X 88X2242 40G/Quad-10G EDC PHY		4	Yes	No	No	Yes	Yes	Yes	40G, 10G, 1G	XLAUI, XFI, XAUI, RXAUI	SFI, XLPPi	40GBASE-SR4/LR4, 10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-SX/LX	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA
Alaska X 88X2222 Dual-10G EDC PHY with MacSec		2	Yes	No	No	No	No	Yes	10G, 1G	XAUI, RXAUI, XFI	SFI	10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-X	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA
Alaska X 88X2242M 40G/Quad-10G EDC PHY with MacSec		4	Yes	Yes	No	No	No	Yes	40G, 10G, 1G	XLAUI, XFI, XAUI, RXAUI	SFI, XLPPi	40GBASE-SR4/LR4, 10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-SX/LX	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA
Alaska X 88X2222M Dual-10G EDC PHY with MacSec		2	Yes	Yes	No	No	No	Yes	10G, 1G	XAUI, RXAUI, XFI	SFI	10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-X	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA
Alaska X 88X2242P 40G/Quad-10G EDC PHY with MacSec and PTP		4	Yes	Yes	No	Yes	Yes	Yes	10G, 1G	XAUI, RXAUI, XFI, KR	SFI	10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-X	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA
Alaska X 88X2222P Dual-10G EDC PHY with MacSec, and PTP		2	Yes	Yes	No	Yes	Yes	Yes	10G, 1G	XAUI, RXAUI, XFI, KR	SFI	10GBASE-SR/ER/LR, 10GBASE-SW/EW/LW, 10GBASE-LRM, 1000BASE-X	Yes	No	1.0V	1.5V/1.8V/2.5V/3.3V	1.1V/1.5V	156.25, 155.52 MHz	Yes	324-FCBGA

Copper (NBASE-T) Multispeed Ethernet (ALASKA® M)

Transceivers

	Number of Ports	Optical (Line)	MACSec (LinkCrypt®)	I-Temp	1-Step PTP (1588 v2)	2-Step PTP	SyncE	BASE-T Speeds (Copper)	Host Interfaces	Optical Interface	Optical Module Types	Direct Attach Copper	Energy Efficient Ethernet	Core Voltage	Digital I/O	Analog Voltage	Reference Clock	JTAG	Package Type
88E2180 Octal EEE 10/100/1G/2.5G/5GBASE-T PHY	8	No	No	Yes	No	No	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII-M, XFI, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V, 3.3V	50, 156.25 MHz	Yes	529-HFCBGA
88E2110 Single EEE 10/100/1G/2.5G/5GBASE-T PHY	1	No	No	Yes	No	No	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII-M, XFI, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V, 3.3V	50, 156.25 MHz	Yes	104-HFCBGA
88E2040P Quad EEE 10/100/1G/2.5G/5GBASE-T PHY with MACSec, PTP	4	No	Yes	No	Yes	Yes	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAU, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	484-HFCBGA
88E2040 Quad EEE 10/100/1G/2.5G/5GBASE-T PHY	4	No	No	No	No	No	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAU, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	484-HFCBGA
88E2010P Single EEE 10/100/1G/2.5G/5GBASE-T PHY with MACSec, PTP	1	No	Yes	No	Yes	Yes	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAU, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	168-HFCBGA
88E2010 Single EEE 10/100/1G/2.5G/5GBASE-T PHY	1	No	No	No	No	No	Yes	5G, 2.5G, 1G, 100M, 10M	USXGMII, XFI, RXAU, 5GBASE-R, 2500BASE-X, SGMII	No	No	No	Yes	0.80V	1.2V/1.5V/1.8V/2.5V/3.3V	1.5V, 1.8V/2.0V, 2.3V/2.5V	50, 156.25 MHz	Yes	168-HFCBGA

AVASTAR™

Wireless

Part Number
Wireless Technologies
Interface Support
Package Type
Package Size
Ball Pitch
Embedded CPU
Temp
Evaluation Boards
Process

AVASTAR 8900 Family

88W8997	88W8997	802.11 a/b/g/n/ac 2x2 + BT 4.0, Dual-mode	PCIe, SDIO 3.0, USB 3.0/2.0, UART	QFN, CSP	9mm x 9mm & Chip Scale	400um, 350um	Yes	-30 to +85C	RD-88W-8997-PCIe/SD/USB	28nm
88W8977	88W8977	802.11 a/b/g/n/ac 1x1 + BT 4.0, Dual-mode	SDIO 3.0, UART	QFN, eWLP	8mm x 8mm & Wafer-Level	400um	Yes	-30 to +85C	RD-88W-8977e/Q	28nm
88W8964	88W8964	802.11 a/b/g/n/ac 4x4	PCIe, UART	aQFN	11.8mm x 11mm	650um	Yes	0 to +70C	RD-88W-AP8964-DR2	28nm

AVASTAR 8800 Family

88W8897	88W8897	802.11 a/b/g/n/ac 2x2 + BT 4.0, Dual-mode	PCIe, SDIO 3.0, USB 2.0, UART	QFN, CSP	9.5mm x 11mm & Chip Scale	400um	Yes	-30 to +85C	RD-88W-8897PCIe/SD	40nm
88W8887	88W8887	802.11a/b/g/n/ac 1x1 + BT 4.0 Dual-mode	SDIO 3.0, UART	QFN, CSP	9mm x 9mm & Chip Scale	400um	Yes	-30 to +85C	RD-88W-8887-AGC/Q	40nm
88W8864	88W8864	802.11 a/b/g/n/ac 4x4	PCIe, UART	aQFN	11.8mm x 11mm	800um	Yes	0 to +70C	RD-88W-AP-8864DR2	40nm
88W8801	88W8801	802.11a/b/g/n 1x1 Dual-mode	SDIO 3.0, USB 2.0	QFN	6mm x 6mm	400um	Yes	-30 to +85C	RD-88W-SD/USB 8801	40nm

Marvell

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