

ALASKA GIGABIT ETHERNET TRANSCEIVERS

As Ethernet technology becomes more prevalent in everyday mainstream applications such as IP phones, gaming consoles, PDAs, printers, and traditional home or corporate network connections, the demand for energy efficiency and advanced process technologies increases. The efficient design of the Marvell Alaska® Gigabit Ethernet (GbE) PHY transceivers enables increased density, reduced power, and smaller package size. The Alaska Gigabit PHYs build on the Marvell legacy of providing unique, best-in-class features that enable customers to expand their Ethernet applications.

With the launch of the Alaska V family, Marvell delivers a new class of Gigabit PHYs designed to meet the demands of next-generation green networks.

Alaska V Features:

- The industry's first 40nm ultra-low-power, eight-port energy-efficient Gigabit Ethernet transceivers
- The 88E1680 transceiver delivers the lowest active power-per-port at 10/100/1000Mbps data rates
- Incorporates Energy Efficient Ethernet (EEE) features, based on IEEE 802.3az, for significant power savings during idle periods

[Download the Product Brief](#)

Additional features of the Alaska GbE PHYs include a high-level of integration in thermally-efficient packages that optimize PCB real estate and enable fan-less heat-sink-less designs. In addition, Alaska GbE PHYs feature Marvell Virtual Cable Tester® (VCT™) fault detection technology that is continuously extended, and which now enables "proactive" cable performance monitoring.

The Alaska GbE PHY transceivers address a full range of demands:

- Security: IEEE 802.1ae MACsec:
- Synchronous Ethernet
- IEEE 1588v2
- Lower power dissipation, enabling smaller and more mobile applications

PRODUCT DOCUMENTATION

[88E1680 Product Brief](#)

[88E1545 Product Brief](#)

[88E1543 Product Brief](#)

[88E1512 Product Brief](#)

[88E1510 Product Brief](#)

[88E1322 Product Brief](#)

[88E1310/1318 Product Brief](#)

[88E1240 Technical Product Brief](#)

[88E1145 Product Brief](#)

[88E1118R Technical Product Brief](#)

[88E1116R Product Brief](#)

[88E1116R Technical Product Brief](#)

[88E1112 Product Brief](#)

[88E1112 Technical Product Brief](#)

[88E1111 Product Brief](#)

PRODUCT SELECTOR GUIDE

Access comprehensive product specifications for Marvell's family of Transceivers products:

- [Alaska Gigabit Ethernet](#)
- [Fast Ethernet PHY](#)
- [Alaska X 10 Gigabit Ethernet](#)

- Reduced PCB real estate, allowing either more compact platform design or additional physical space for increased application support
- Simplified layout overcoming technical routing and thermal limitations
- Higher performance, pushing the envelope on technical performance
- Cable performance monitoring, allowing qualitative cable diagnostics

Marvell PHY products can also be combined with Marvell's [switching products](#) for a complete networking solution. With design and support centers located across the globe, Marvell provides comprehensive global engineering and technical support.

Alaska Products

Part Number	Description	Documentation
88E1680	10/100/1000 BASE-T PHY, Octal Port, EEE, QSGMII to Cu Transceiver	Product Brief
88E1545	10/100/1000 BASE-T PHY, Quad Port, EEE, QSGMII to Cu Transceiver	Product Brief
88E1543	10/100/1000 BASE-T PHY, Quad Port, EEE, SGMII to Cu/Fiber Transceiver	Product Brief
88E1512	10/100/1000 BASE-T PHY, Single Port, EEE, RGMII/SGMII to Cu/Fiber/SGMII Transceiver	Product Brief
88E1510/1518	10/100/1000 BASE-T PHY, Single Port, EEE, RGMII to Cu Transceiver	Product Brief
88E1340	10/100/1000 BASE-T PHY, Quad Port, SGMII/QSGMII to Cu/Fiber Transceiver	
88E1322	10/100/1000 BASE-T PHY, Dual Port, SGMII to Cu/Fiber Transceiver	Product Brief
88E1310/1318	10/100/1000 BASE-T PHY, Single Port, RGMII to Cu Transceiver	Product Brief
88E1240	10/100/1000 BASE-T PHY with SGMII	Technical Product Brief
88E1145	10/100/1000 BASE-T PHY with SGMII/SERDES	Product Brief
88E1118R	10/100/1000 BASE-T PHY with RGMII	Technical Product Brief
88E1116R	10/100/1000 BASE-T PHY with RGMII	Product Brief Technical Product Brief
88E1112	10/100/1000 BASE-T PHY with Dual SERDES/SGMII	Product Brief Technical Product Brief
88E1111	10/100/1000 BASE-T PHY with multiple MAC Interfaces	Product Brief

Or download the entire [Product Guide](#) in PDF format.

ADDITIONAL INFORMATION

Marvell and its partners provide innovative and customized SoC products. Contact your [local sales office](#) for information on solutions tailored to your business needs.

