Product Brief

Intel® 82567 Gigabit Network Connections

Ethernet Controllers

Intel® 82567LM/LF/V Gigabit Network Connections

High-performance Gigabit Network Connectivity with Support for Intel® vPro™ technology and Intel® Viiv™ technology

- High-performing, PCI Express*-based Gigabit Ethernet connection
- Flexible board design options via shared LAN and BIOS Flash storage, integrated MDI termination components and integrated voltage regulation circuitry
- Simple installation and maintenance with Intel® Stable Image Platform Program (SIPP) drivers
- Supports Intel® Active Management Technology[1] (Intel® AMT) and Intel® Virtualization Technology[2] (Intel® 82567LM Gigabit Network Connection only)
- Supports Intel® Viiv™ technology-based software and applications
- Enables improved battery life for notebook designs with integrated Intel® Auto-Connect Battery Saver (Intel® ACBS) technology

Overview

The Intel® 82567 family of Gigabit Ethernet Controllers are compact, single-port integrated physical layer devices that connect to appropriate Intel® chipsets with an integrated Media Access Controller (MAC). The 82567 family of products are Gigabit copper networking components for mobile, desktop, workstation, and value-server designs with critical space constraints. The 82567LM supports Intel AMT to help IT better discover, heal and protect their PCs as well as Intel Virtualization Technology through the Intel® Virtual Gigabit Network Connection. The 82567LM/LF products can also support Intel® Standard Manageability or ASF2.0 legacy manageability with appropriate Intel chipset. The Intel 82567 family of products can also support the latest Intel Viiv technology features for advanced Digital Home capabilities.

- **Flexible, low-cost system design:** The Intel 82567 family of networking components provide a small-package (8x8 mm) networking option for convenient board layout. Additionally, the 82567 family of products also help to reduce board space by integration of the MDI termination components as well as the voltage regulation circuitry.
- **Intel® business client features:** The Intel 82567LM Network Connection is a key platform ingredient for enabling Intel vPro technology on notebook and desktop systems by providing always-available network connectivity and hardware filters for advanced security. Intel® vPro™ technology provides built-in manageability, proactive security and energy-efficient performance for corporate applications.

- **Intel® digital home features:** The Intel 82567 family is a key ingredient for enabling Intel Viiv technology. The 82567 family of products has been validated on platforms with Intel Viiv technology to ensure seamless performance and usability on consumer platforms.
- **Performance-enhancing features:** Each of the Intel 82567 family of network components includes advanced interrupt-handling features to reduce CPU overheard. Other performance-enhancing features include offloading TCP/UDP (for both IPv4 and IPv6) checksum calculations and performing TCP segmentation. Advanced features such as Jumbo Frame support for extra-large packets and Receive Side Scaling are also available on the Intel 82567LM product.
- **Simplified installation and maintenance:** The Intel 82567LM and 82567LF products also support the Intel® Stable Image Platform Program (SIPP), which provides system image stability (both hardware and software) and consistency for >12 months from the product launch date. This helps IT to better manage the system images in their environment.
- **Environmentally friendly design:** The Intel 82567 family of products are all lead free[3] and halogen free[4] in their silicon and package design to reduce the potential for environmental impact.
- **Reduced Power and Thermal Footprint:** The Intel 82567 family of products drastically reduces the power consumption at the chip to <700 mW in fully active conditions. In addition, for mobile designs, Intel ACBS can help reduce the cable disconnected power of the chip to <40 mW while still maintaining full usability. The products also support advanced link downshifting capabilities to provide additional power headroom for system regulatory compliance such as Energy Star* 4.0 by lowering the link speed under certain conditions to save power.

Component Summary

Controller	Distinguishing Features	Order Code
82567LM	Support for Intel® vPro™ technology, Intel® AMT[1] 4.0/5.0, MACSec (802.1AE)[5], Intel® SIPP, and enhanced performance features	WG82567LM
82567LF	Support for Intel® Standard Manageability or ASF2.0 with appropriate Intel® chipsets, and Intel® SIPP	WG82567LF
82567V	Support for Intel® Viiv™ technology and basic Gigabit performance capabilities for consumer environments	WG82567V

Feature Summary

Feature	82567LM	82567LF	82567V
MACSec (802.1AE)[5]	▪		
Intel® vPro™ technology	▪		
Intel® Viiv™ technology	▪	▪	▪
ASF2.0	▪	▪	
Shared Flash with system BIOS	▪	▪	▪
Integrated linear voltage regulator	▪	▪	▪
TCP/UDP checksum and segmentation offload (IPv4 and IPv6)	▪	▪	▪
Receive Side Scaling	▪		
Dual TX and RX queues	▪		
ACBS battery savings	▪	▪	
Teaming	▪	▪	
VLAN	▪	▪	
Intel® Stable Image Platform Program (SIPP)	▪	▪	
Intel® Standard Manageability	▪	▪	

Specifications

Intel® 82567LM/LF/V Gigabit Network Connections

Electrical

Power supply	3.3 V, 1.8 V, 1.0 V
Typical targeted power dissipation	650 mW at 1000 Mbps active

Packaging

Operating temperature	0° C to 85° C (maximum); simplified thermal design
Storage temperature	-40° C to 125° C
Storage temperature	Lead-free, halogen-free, 8x8 mm, 56-pin QFN, 0.5 mm pin pitch (simplifies board designs)

For more information, contact your Intel sales representative.

[1]Intel® Active Management Technology (AMT) 4.0, and 5.0 and Intel® Standard Manageability require specific Intel chipsets in addition to the Intel® 82567LF (Intel® Standard Manageability only) and the Intel® 82567LM (Intel® Standard Manageability or Active Management Technology 4.0 and 5.0) networking components.

[2]Intel® Virtualization Technology requires a computer system with a processor, chipset, BIOS, virtual machine monitor (VMM) and applications enabled for virtualization technology. Functionality, performance or other virtualization technology benefits will vary depending on hardware and software configurations.

[3]Lead has not been intentionally added, but lead may still exist as an impurity below 1000 ppm.

[4]Lead and other materials banned in the RoHS Directive are either (1) below all applicable substance thresholds as proposed by the EU or (2) an approved/pending exemption applies.

[5]MACSec (802.1AE) security requires appropriate Intel® Chipset and will be enabled via a software upgrade in the first quarter of 2009.

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