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Driver Support

Microsoft Windows 7*
Microsoft Windows Vista* (32 & 64 bit)
Microsoft Windows XP* (32 & 64 bit)
Microsoft Windows CE*
Microsoft Windows NT*
Microsoft Windows 2000 Server*
Microsoft Windows Server 2003* (32 & 64 bit)
SCO UnixWare* 7.x
Open Unix* 8.0
Novell ODI*
Novell Netware*
SUSE Linux Enterprise Server* 9.0
Red Hat Enterprise Linux* 4.0
Linux*
FreeBSD*
Sun Solaris*
Microsoft DOS*
VMware ESX*

Intel® Advanced Networking Services

Teaming

Initiate a team with up to eight NICs.

Multi-Vendor Teaming

Allows teaming with third-party NICs and LOM solutions.

Adapter Fault Tolerance

Provides automatic redundancy for the server's network connection should the primary adapter fail.

Transmit and Receive Load Balancing

Balances network traffic across teamed network connections.

802.1q VLAN Tagging

Allows teaming in multiple sub-networks by creating virtual adapters.

Link Aggregation

Supports Intel® Link Aggregation, Fast EtherChannel, Gigabit EtherChannel, and IEEE 802.3ad standards. Continues to balance traffic even if one of the teamed connections loses link.



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0812/TR/TNF/PP/1000

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Intel® Ethernet Controllers and PHYs



Product	Device	Package Size/ Physical Package	Host Interface/ Bus Type	Performance Features	Target Applications	Management Features	Power (Typical)	Power (Standby)	Operating Temp	Power Supply	Order Code	Footprint Compatible with:	Recommended for New Designs
10 GbE Silicon													
Intel® 82599ES	Dual Port 10GbE MAC/PHY, KR, SFI, XAUI, KX/KX4, CX4, BX, SGMII	25x25 mm 576-pin Flip-Chip	PCI Express* v2.0 (5.0 GT/s) x8/x4/x2/x1	128 Tx and 128 Rx queues, Receive Side Coalescing (RSC), low latency interrupts, Intel® Ethernet Flow Director, Intel® Virtualization Technology for Connectivity (Intel® VT-c) (VMDq, SR-IOV), FCoE CRC offload, FCoE direct data placement	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, iSCSI boot, WoL, PXE remote boot, VLAN filtering	4.5 W (KX4/KR Dual Port)	~1.3 W (D3 Cold, WoL enabled, 1000 Mb/s)	0-70° C	3.3, 1.2 V	JL82599ES	JL82599EN	Yes
Intel® 82599EB	Dual Port 10GbE MAC/PHY, XAUI, KX/KX4, CX4, BX, SGMII	25x25 mm 576-pin Flip-Chip	PCI Express* v2.0 (5.0 GT/s) x8/x4/x2/x1	128 Tx and 128 Rx queues, Receive Side Coalescing (RSC), low latency interrupts, Intel® Ethernet Flow Director, Intel® Virtualization Technology for Connectivity (Intel® VT-c) (VMDq, SR-IOV), FCoE CRC offload, FCoE direct data placement	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, iSCSI boot, WoL, PXE remote boot, VLAN filtering	4.5 W (KX4/KR Dual Port)	~1.3 W (D3 Cold, WoL enabled, 1000 Mb/s)	0-70° C	3.3, 1.2 V	JL82599EB	—	Yes
Intel® 82599EN	Single Port 10GbE MAC/PHY, SFI	25x25 mm 576-pin Flip-Chip	PCI Express* v2.0 (5.0 GT/s) x8/x4/x2/x1	64 Tx and 64 Rx queues, Receive Side Coalescing (RSC), low latency interrupts, Intel® Ethernet Flow Director, Intel® Virtualization Technology for Connectivity (Intel® VT-c) (VMDq, SR-IOV), FCoE CRC offload, FCoE direct data placement	Enterprise servers, blades, embedded systems	Advanced: IPMI pass-through via SMBus or NC-SI, iSCSI boot standard: WoL, PXE remote boot, VLAN filtering	~3.3 W (SFI)	~1.3 W (D3 Cold, WoL enabled, 1000 Mb/s)	0-70° C	3.3, 1.2 V	JL82599EN	JL82599ES	Yes
Intel® X540AT	Dual Port 10GbE MAC/PHY, 10GBASE-T, 1000BASE-T, 100BASE-T	25x25 mm 576-pin Flip-Chip	PCI Express* v2.1 (5.0 GT/s) x8/x4/x2/x1	128 Tx and 128 Rx queues, Receive Side Coalescing (RSC), low latency interrupts, Intel® Ethernet Flow Director, Intel® Virtualization Technology for Connectivity (Intel® VT-c) (VMDq, SR-IOV), FCoE CRC offload, FCoE direct data placement	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, iSCSI boot, WoL, PXE remote boot, VLAN filtering	~11.5 W (Copper)	~3 W (D3 Cold, WoL enabled, 100 Mb/s)	0-55° C	3.3, 1.2 V	JLX540AT2	NH1350BT2	Yes
Intel® 82598EB	Dual Port 10GbE MAC XAUI, KX4, CX4	31x31 mm 883-pin FCBGA	PCI Express* x8/x4/x2	32 Tx and 64 Rx queues, message signaled interrupts, receive side scaling, low latency interrupt, flow interrupt priority, priority grouping, congestion management, virtual machine device queues	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	~4.8 W (Dual Port) ~3.5 W (Single Port)	~1.6 mW (D3 Cold, WoL enabled, 1000 Mb/s)	0-55° C	3.3, 1.8, 1.0 V	JL82598EB	—	—
10/100/1000 Silicon													
Intel® I350AM2	Dual Port GbE Controller MAC/PHY/SerDes/SGMII	17x17 mm 256-pin FCBGA	PCI Express* v2.1 (5.0 GT/s & 2.5 GT/s) x4/x2/x1	8 Tx and 8 Rx queues per port, Receive Side Scaling (RSS), Message Signal Interrupt Extension (MSI-X), UDP, TCP and IP checksum offloads, UDP and TCP Transmit Segmentation Offload (TSO), SCTP receive and transmit checksum offloads, stateless offloads (header splitting), jumbo frames (9.5k), Intel® VT-c (VMDq, SR-IOV), IEEE 1588 (time sync) / 802.1AS	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	Intel® I350-AM2 ~2.1 W (Copper), ~1.8 W (SerDes)	~470 mW (D3 cold, WoL enabled, 100 Mb/s, EEE enabled)	-10-85° C	3.3, 1.8 V	NH1350AM2	NH82580EB	Yes
Intel® I350AM4	Quad Port GbE Controller MAC/PHY/SerDes/SGMII						Intel® I350-AM4 ~3.4W (Copper), ~2.3 W (SerDes)				NH1350AM4	NH82580DB	
Intel® I350BT2	Dual Port GbE Controller MAC/PHY/SerDes/SGMII	25x25 mm 576-pin Flip-Chip	PCI Express* v2.1 (5.0 GT/s & 2.5 GT/s) x4/x2/x1	8 Tx and 8 Rx queues per port, Receive Side Scaling (RSS), Message Signal Interrupt Extension (MSI-X), UDP, TCP and IP checksum offloads, UDP and TCP Transmit Segmentation Offload (TSO), SCTP receive and transmit checksum offloads, stateless offloads (header splitting), jumbo frames (9.5k), Intel® VT-c (VMDq, SR-IOV), IEEE 1588 (time sync) / 802.1AS	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	Intel® I350-BT2 ~2.1W (Copper)	~470 mW (D3 cold, WoL enabled, 100 Mb/s, EEE enabled)	-10-85° C	3.3, 1.8 V	NH1350BT2	JLX540AT2	Yes
Intel® 82580DB	Dual Port GbE Controller MAC/PHY/SerDes/SGMII	17x17 mm 256-pin FCBGA	PCI Express* v2.0 (5.0 GT/s & 2.5 GT/s) x4/x2/x1	8 Tx and 8 Rx queues per port, Receive Side Scaling (RSS), Message Signal Interrupt Extension (MSI-X), UDP, TCP and IP checksum offloads, UDP and TCP Transmit Segmentation Offload (TSO), SCTP receive and transmit checksum offloads, stateless offloads (header splitting), jumbo frames (9.5k), Intel® VT-c (VMDq, SR-IOV), IEEE 1588 (time sync) / 802.1AS	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	Intel® 82580DB ~2.1 W (Copper), ~1.4 W (SerDes)	~690 mW (D3 cold, WoL enabled, 100 Mb/s)	-10-85° C	3.3, 1.8 V	NH82580DB	NH1350AM2	Yes
Intel® 82580EB	Quad Port GbE Controller MAC/PHY/SerDes/SGMII						Intel® 82580EB ~3.3 W (Copper), ~2.0 W (SerDes)				NH82580EB	NH1350AM4	
Intel® 82576EB2	Dual Port GbE Controller MAC/PHY/SerDes/SGMII	25x25 mm 576-pin FCBGA	PCI Express* v2.0 (2.5 GT/s) x4/x2/x1	16 Rx and 16 Tx queues per port, Intel® QuickData Technology, MSI-X, Receive Side Scaling (RSS), checksum and segmentation offload, header splitting/replication, low latency interrupts, jumbo frames (9.5k), Intel® VT-c (VMDq, SR-IOV), IEEE 1588 (time sync) / 802.1AS, Security (IPsec offload, LinkSec3)	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	~2.4W (Copper) ~700 mW (SerDes)	~790 mW (D3 cold, WoL enabled, 100 Mb/s)	0-55° C	3.3, 1.8, 1.0 V	JL82576EB	JL82575EB	Yes
Intel® 82575EB	Dual Port GbE Controller MAC/PHY/SerDes/SGMII	25x25 mm 576-pin FCBGA	PCI Express* v2.0 (2.5 GT/s) x4/x2/x1	4 Rx and 4 Tx queues, MSI-X, Receive Side Scaling (RSS), checksum and segmentation offload, header splitting/replication, low latency interrupts, jumbo frames (9.5k), Intel® VT-c (VMDq)	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, ASF 2.0, iSCSI boot, VLAN filtering	~2.4 W (Copper) ~700 mW (SerDes)	~780 mW (D3 cold, WoL enabled, 100 Mb/s)	0-70° C	3.3, 1.8, 1.0 V	JL82575EB	—	—
Intel® 82572EI	Single Port GbE Controller MAC/PHY/SerDes	17x17 mm 256-pin FCBGA	PCI Express* x4/x2/x1	2 Tx and 2 Rx queues per port, message signaled interrupts, receive side scaling, header splitting	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus or FML, WoL, PXE remote boot, ASF 2.0, iSCSI boot, serial over LAN, VLAN filtering	Intel® 81572EI ~1.4 W (Copper), ~0.7 W (SerDes)	780 mW (D3 cold, WoL enabled, 100 Mb/s) for 82571EB	0-70° C	3.3, 1.8, 1.1 V	HL82572EI	—	—
Intel® 82571EB	Dual Port GbE Controller MAC/PHY/SerDes						Intel® 82571EB ~2.8 W (Copper), ~1.2 W (SerDes)		0-70° C ¹		HL82571EB		
Intel® 82574L2	Single Port GbE Controller MAC/PHY	9x9 mm 64-pin QFN	PCI Express* v1.1 x1	2 Tx and 2 Rx queues, TCP segmentation offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, VLAN support, 9k jumbo frames, RSS, MSI, MSI-X	Server and embedded systems	IPMI pass-through via SMBus or NC-SI, WoL, PXE remote boot, iSCSI boot, VLAN filtering	~727 mW	188 mW (D3 cold, WoL enabled, 100 Mb/s)	0-85° C	3.3 V	WG82574L	WG82583V	Yes
Intel® 82574IT2									-40-85° C		WG82574IT		
Intel® 82583V	Single Port GbE Controller MAC/PHY	9x9 mm 64-pin QFN	PCI Express* v1.1 x1	TCP segmentation offload, TCP, UDP, IPv4 checksum offload, VLAN support, 9k jumbo frames	Consumer electronics, SFF embedded applications	PXE remote boot	~727 mW	188 mW (D3 cold, WoL enabled, 100 Mb/s)	0-85° C	3.3 V	WG82583V	WG82574L WG82574IT	Yes
Intel® 82573E/V	Single Port GbE Controller MAC/PHY	15x15 mm 196-pin TFBGA	PCI Express* x1	TCP segmentation offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, jumbo frames	Enterprise clients, workstations, embedded systems	Intel® Active Management Technology, IPMI pass-through via SMBus, WoL, PXE remote boot, ASF 2.0	~1.4 W (82573E) ~1.3 W (82573V)	Intel® 82573E/V ~408 mW (D3 cold, WoL enabled, 100 Mb/s)	0-70° C	3.3, 2.5, 1.2 V	RC82573E RC82573V	—	—
Intel® 82573L							~1.2 W (82573L)	Intel® 82573L ~303 mW (D3 cold, WoL enabled, 100 Mb/s)			RC82573L		
Intel® 82579LM2	Single Port GbE PHY	6x6 mm 48-pin QFN	PCI Express*	2 Tx and 2 Rx queues, TCP segmentation offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, jumbo frames (9k)	Mobile and embedded applications	Intel® vPro™ Technology, MACSec (802.1ae), WoL, PXE remote boot, iSCSI Boot and VLAN filtering	~ 620 mW	~176 mW (D3 cold, WoL enabled, 100 Mb/s, EEE enabled)	0-85° C	3.3, 1.05 V	WG82579LM	82579V	Yes
Intel® 82579V2	Single Port GbE PHY	6x6 mm 48-pin QFN	PCI Express*	2Tx and 2 Rx queues, TCP segmentation offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, jumbo frames (9k)	Mobile and embedded applications	WoL, PXE remote boot, and VLAN filtering	~ 620 mW	~176 mW (D3 cold, WoL enabled, 100 Mb/s, EEE enabled)	0-85° C	3.3, 1.05 V	WG82579V	82579LM	Yes
Intel® 82577LM	Single Port GbE PHY	6x6 mm 48-pin QFN	PCI Express*	2Tx and 2 Rx queues, TCP segmentation offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, jumbo frames (4k)	Mobile and embedded applications	Intel® vPro™ Technology, WoL, PXE remote boot, iSCSI Boot and VLAN filtering	~ 707 mW	~251 mW (D3 cold, WoL enabled, 100 Mb/s)	0-85° C	3.3, 1.05 V	WG82577LM	—	Yes
Intel® 82567LM2	Single Port GbE PHY	8x8 mm 56-pin QFN	PCI Express*	2 Rx and 2 Tx queues, jumbo frames (9k), RSS, on Intel ICH9M, ICH9, ICH10 chipsets	Enterprise clients, consumer, embedded systems	Intel® Active Management Technology, WoL, PXE remote boot, ASF 2.0	~670mW	~140 mW (D3 cold, WoL enabled, 10 Mb/s)	0-85° C	3.3, 1.8, 1.05 V	WG82567LM	—	Yes
Intel® 82567V	Single Port GbE PHY	8x8 mm 56-pin QFN	PCI Express*	On Intel® ICH8M, ICH9M, ICH9, ICH10 chipsets	Enterprise clients, consumer, embedded systems	WoL, PXE remote boot, ASF 2.0	~670mW	~140 mW (D3 cold, WoL enabled, 10 Mb/s)	0-85° C	3.3, 1.8, 1.05 V	WG82567V	—	Yes
Intel® 82545GM	Single Port GbE Controller	21x21 mm 364-pin TFBGA	PCI/PCI-X* 33/66/133 MHz	TCP segmentation offload, large send offload, TCP, UDP, IPv4 checksum offload, interrupt moderation, jumbo frames (16k)	Enterprise servers, blades, embedded systems	IPMI pass-through via SMBus, WoL, PXE remote boot, ASF 2.0, VLAN filtering	Intel® 82545GM ~1.5 W (Copper), ~540 mW SerDes	~400 mW (D3 cold, WoL enabled, 100 Mb/s)	0-70° C	3.3, 2.5, 1.5 V	RC82545GM	—	—
Intel® 82546GB	Dual Port GbE Controller MAC/PHY/SerDes	364-pin PBGA	PCI/PCI-X* 33/66/133 MHz				Intel® 82546GB ~2.7 W (Copper), ~900 mW SerDes	(82545GM/82546GB)	0-55° C		FW82546GB		
Intel® 82541PI	Single Port GbE Controller MAC/PHY	15x15 mm 196-pin PBGA	PCI 2.3 33/66 MHz	TCP segmentation offload, TCP, UDP, IPv4 checksum offload	Enterprise clients, workstations, embedded systems	IPMI pass-through via SMBus, WoL, PXE remote boot, ASF 2.0	~1.1 W	~300 mW (D3 cold, WoL enabled, 100 Mb/s)	0-70° C	3.3, 2.5, 1.5 V	GD82541PI	—	—
Intel® 82541ER											GD82541ER		

All products are RoHS compliant. All products are compatible with all major operating systems. ¹ 0-70° C with thermal management ² Halogen-free ³ LinkSec enabled. Functionality available when the ecosystem is ready to support this new technology.