







RTX64 Network Abstraction Layer (NAL)

Supported Network Interface Cards

The *Supported Network Interface Cards* guide lists the NIC drivers that are provided with RTX64 for use with the Network Abstraction Layer (NAL). Note that you can write your own custom drivers for NICs that are not included in this document.

Legend

	This Network Interface card (NIC) has been tested using RTX64. The card has been tested for both Internet Protocol version 4 (IPv4) and next generation Internet Protocol version 6 (IPv6).
	This NIC has been tested using RTX64. The manufacturer has listed this chipset as End-Of-Life, and it will likely be deprecated in a future release of RTX64.
	This NIC has not been tested, but based on its chipset it should work correctly with RTX64.
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	This NIC has been tested and confirmed not to work correctly with RTX64.
	The device supports line-based interrupts only.

NOTE: Currently, the RtNalE1000 and RtNalIPCH drivers do not support timestamps or receive filtering.

NOTE: All drivers support Link Status monitoring.

NOTE: All tested ( , ) drivers support Jumbo Packets.

NOTE: Windows uses the Device ID and Vendor ID when associating devices. The friendly name of a device in Windows may differ slightly from the corresponding name provided in this document.










Driver RtNalIPCH supports:

NOTE: This driver does not support receive filtering.

NOTE: This driver does not support timestamps for receive or transmit.

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x153A	Intel® I217LM PHY 1000BASE with C220 Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x153B	Intel® I217V PHY 1000BASE with C220 Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x155A	Intel® I218LM PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x1559	Intel® I218V PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15A3	Intel® I218V PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15A2	Intel® I218LM PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	



RTX64 NAL Supported Network Interface Cards

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x15A1	Intel® I218V PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15A0	Intel® I218LM PHY 1000BASE with Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x156F	Intel PCH SPT I219 LM Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x1570	Intel PCH SPT I219 V Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15B7	Intel PCH SPT I219 LM2 Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15B8	Intel PCH SPT I219 V2 Ethernet Controller	Rx: 1 Tx: 2	2.0	
0x8086	0x15B9	Intel PCH SPT I219 LM3 Ethernet Controller	Rx: 1 Tx: 2	2.0	

Driver RtNalI10GB supports:

NOTE: This driver currently supports packet timestamps for Receive (Rx) and Transmit (Tx) read from registers.

NOTE: This driver does not support timestamps in packet buffers for receive, or timestamps in DMA descriptors for transmit.

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1528	Intel® X540 T 10GB Network Connection	Rx: 16 Tx: 16	2.0	
0x8086	0x1560	Intel® X540 T1 10GB Network Connection	Rx: 16 Tx: 16	2.0	


Driver RtNalIGB supports:





NOTE: All RtNalIGB devices support packet timestamps for receive and transmit read from the registers.

NOTE: All RtNalIGB devices support timestamps in packet buffers for receive.

NOTE: Only the I210 and I211 devices support timestamps in DMA descriptors for transmit.

NOTE: Although MSI-X is supported, it does not work correctly with these devices. Use MSI instead.

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x157B	Intel® I210 Flash-less Copper-only Ethernet Controller	Rx: 4 Tx: 4	2.0	

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1533	Intel® I210 T1 Copper-only Ethernet Controller	Rx: 4 Tx: 4	2.0	
0x8086	0x1521	Intel® I350 Quad/Dual PCIe Copper Ethernet Controller	Rx: 8 Tx: 8	2.0	
		NOTE: This controller does not support timestamps in DMA descriptors for transmit.			
0x8086	0x1523	Intel® I350 Quad/Dual PCIe 1000BASE-KX/BX Ethernet Controller	Rx: 8 Tx: 8	2.0	
		NOTE: This controller does not support timestamps in DMA descriptors for transmit.			
0x8086	0x1539	Intel® I211-AT Ethernet Controller	Rx: 2 Tx: 2	2.0	




Driver RtNalE1000 supports:









NOTE: This driver does not support shared line-based interrupts.









NOTE: This driver does not support timestamps for receive or transmit.









NOTE: This driver does not support receive filtering,



NOTE: This driver does not support, receive or transmit packet callbacks, receive polling, and transmitting multiple packets in one request.

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1502	Intel® 82579 Ethernet Controller Integrated with the Intel C202 PCH, C216 PCH, or C220 PCH. NOTE: This controller is also supported by the RtNalIPCH driver. NOTE: This controller does not work correctly on systems with the Intel C200 PCH.	Rx: 1 Tx: 1	2.0	
0x8086	0x1503	Intel® 82579V Gigabit Network Adapter NOTE: This controller is also supported by the RtNalIPCH driver.	Rx: 1 Tx: 1	2.0	
0x8086	0x100E	Intel® 82540EM Pro 1000 MT Desktop NOTE: Although MSI/MSI-X is supported, it does not work correctly. Use the line-based interrupt type instead.	Rx: 1 Tx: 1	2.0	

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1010	Intel® PRO/1000 MT Dual Port Gigabit Ethernet Adapter NOTE: Although MSI/MSI-X is supported, it does not work correctly. Use the line-based interrupt type instead.	Rx: 1 Tx: 1	2.0	
0x8086	0x107C	Intel® 82541GI/82541PI LF Pro 1000 GT Desktop β	Rx: 1 Tx: 1	2.0	
0x8086	0x107D	Intel® 82572 PT Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x109A	Intel® PRO/1000 PL Network Adapter	Rx: 1 Tx: 1	2.0	
0x8086	0x104B	Intel® 82566 DC Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x10D3	Intel® 82574L Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x1000	Intel® 82542 Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x1004	Intel® 82543GC Gigabit Ethernet Controller Copper	Rx: 1 Tx: 1	2.0	

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1003	Intel® 82543PC Ethernet Controller Copper	Rx: 1 Tx: 1	2.0	
0x8086	0x100D	Intel® 82544GC LOM Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x1015	Intel® 82540EM LOM Gigabit Ethernet Controller PRO/1000 MT Mobile Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x1016	Intel® 82540EP LOM Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x1017	Intel® 82540EP Gigabit Ethernet Controller LOM	Rx: 1 Tx: 1	2.0	
0x8086	0x101E	Intel® 82540EP LP Gigabit Ethernet Controller Mobile	Rx: 1 Tx: 1	2.0	
0x8086	0x100F	Intel® 82545EM Copper Gigabit Ethernet Controller PRO/1000 MT Gigabit Ethernet	Rx: 1 Tx: 1	2.0	
0x8086	0x1077	Intel® 82541GI/82541EI Mobile Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x1051	Intel® PRO/100 VE Network Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x108B	Intel® PRO/1000 PM Network Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x108C	Intel® PRO/1000 PM Network Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x105E	Intel® PRO/1000 PT Dual Port Ethernet Controller	Rx: 1 Tx: 1	2.0	
0x8086	0x105F	Intel® PRO/1000 PF Dual Port Server Adapter	Rx: 1 Tx: 1	2.0	
0x8086	0x1060	Intel® PRO/1000 PB Dual Port Server Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x107E	Intel® PRO/1000 PF Network Connection	Rx: 1 Tx: 1	2.0	
0x8086	0x107F	Intel® PRO/1000 PB Server Connection	Rx: 1 Tx: 1	2.0	

Vendor ID	Device ID	Device Description	Number of Supported Queues (Rx, Tx)	Minimum RTX64 NAL Version	Status
0x8086	0x10B9	Intel® PRO/1000 PT Desktop Adapter	Rx: 1 Tx: 1	2.0	
0x8086	0x10a4	Intel® PRO/1000 PT Quad Port Server Adapter	Rx: 1 Tx: 1	2.0	
0x8086	0x150C	Intel® 82583 Gigabit Ethernet Controller	Rx: 1 Tx: 1	2.0	