



Intel® Ethernet Controller E610

Feature Support Matrix

Network Solutions Group (NSG)

Rev. 1.60

June 2026



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Revision History

Revision	Date	Comments
1.60	June 12, 2026	Updates include the following: <ul style="list-style-type: none"> General updates in support of Releases 31.2 and 31.2.1
1.50	March 1, 2026	Updates include the following: <ul style="list-style-type: none"> General updates in support of Release 31.1
1.41	February 06, 2026	Updates include the following: <ul style="list-style-type: none"> General updates in support of Release 31.0
1.3	October 07, 2025	Updated Table 3: Operating System Supported for Physical Function Driver for the E610 .
	September 9, 2025	Updates include the following: <ul style="list-style-type: none"> General updates in support of Release 30.4
1.21	August 4, 2025	Updated Table 6: NVM Transition Support for the E610 .
	June 12, 2025	Updates include the following: <ul style="list-style-type: none"> General updates in support of Release 30.1.1
1.1	February 27, 2025	Initial release. Updated for Release 30.0 and 30.0.1.
Note: Document revision number corresponds to the most recent NVM release.		

1.0 Features Supported

The following tables list the feature support provided by the NVM and software drivers for a given release starting with the production release (NVM 1.00). The *Intel® Ethernet Controller E610 Datasheet* reflects the silicon device capability, while this document reflects what is supported in the NVM and software for a given release.

- Throughout this document:
 - The Intel® Ethernet Controller E610 is represented as “E610”.
 - “X” = Supported with Intel® NVM and software driver.
 - “---” = Not supported with Intel® NVM and software driver.
 - “SNV” = Supported but Not Validated
- The following table lists software releases and associated NVMs:

Release	NVM Version	Silicon Stepping	SRev
30.0	1.00	A0	0x1
30.0.1	1.10	A0	0x1
30.1.1	1.21	A0	0x1
30.4	1.3	A0	0x1
31.0	1.41	A0	0x1
31.1	1.50	A0	0x1
31.2/31.2.1	1.60	A0	0x1

- Features not listed in this document are not officially supported.

Table 1. Interfaces Supported for the E610

Feature	Supported in Release				
	30.0	30.0.1	30.1.1	30.4	31.0 through 31.2.1
Link Modes 10 GbE					
10GBASE-T	X	X	X	X	X
Link Modes 5 GbE					
5GBASE-T	X	X	X	X	X
Link Modes 2.5 GbE					
2.5GBASE-T	X	X	X	X	X
Link Modes 1 GbE					
1000BASE-T	X	X	X	X	X
Link Modes 100 Mb/s					
100BASE-TX	X	X	X	X	X

Table 2. General Features for the E610

Feature	Supported in Release					
	30.0	30.0.1	30.1.1	30.4	31.0	31.1 through 31.2.1
Link Flow Control ¹	X	X	X	X	X	X
Priority Flow Control ²	X	X	X	X	X	X
PCI Express Version 4 (Gen4)	X	X	X	X	X	X
PCI Express Version 3 (Gen3)	X	X	X	X	X	X
Message Signaled Interrupts (MSI-X) and MSI with Auto-Clear	X	X	X	X	X	X
TCP Timer Interrupt	X	X	X	X	X	X
Receive Side Scaling (RSS)	X	X	X	X	X	X
Header Split	X	X	X	X	X	X
Header Replication	X	X	X	X	X	X
IP, TCP, and UDP checksum offload	X	X	X	X	X	X
TCP Segmentation Offload (TSO)	X	X	X	X	X	X
IPv4 and IPv6 support for all partial offloads	X	X	X	X	X	X
Transmit Scaling with 128 transmit queues	X	X	X	X	X	X
128 Receive Queues	X	X	X	X	X	X
256 on-chip context for transmit requests	X	X	X	X	X	X
VMDq2	X	X	X	X	X	X
SR-IOV with 64/32/16 PCIe endpoints	X	X	X	X	X	X
FlexFilters	X	X	X	X	X	X
NC-SI over MCTP	X	X	X	X	X	X
MCTP over SMBus/IOSF	X	X	X	X	X	X
NC-SI 1.2	X	X	X	X	X	X
PLDM Support - Monitor and Control (DSP0248)	X	X	X	X	X	X
continued...						

Feature	Supported in Release					
	30.0	30.0.1	30.1.1	30.4	31.0	31.1 through 31.2.1
PLDM Support - Firmware Update (DSP0267)	X	X	X	X	X	X
RDE Schemas	X	X	X	X	X	X
Vendor Authorized Debug (VAD)	---	---	---	---	---	---
PTM1.0a, IEEE1588, 802.1AS-2020	---	---	---	---	---	---
Intel® Ethernet Flow Director (Intel® Ethernet FD) (SW ATR not supported)	X	X	X	X	X	X
Legacy PXE	X	X	X	X	X	X
Remote Boot: PXE (UEFI)	X	X	X	X	X	X
Remote Boot: iSCSI (UEFI)	---	---	---	---	---	---
Flat NVM	X	X	X	X	X	X
Low Power Link Up (LPLU)	X	X	X	X	X	X
Energy Efficient Ethernet (EEE)	---	---	---	---	---	X
Malicious Driver Detection (MDD)	X	X	X	X	X	X
Wake on LAN	X ³	X ³	X ³	X ³	X ³	X ³
Jumbo Frames	X	X	X	X	X	X
Firmware Management Protocol (FMP)	---	---	---	---	---	X
VLAN support	X	X	X	X	X	X
Notes: 1. LFC always enabled at 100M and 1G. 2. PFC not supported at 100M and 1G. 3. Not supported on Windows from the S3 and S4 states.						

2.0 Operating Systems Supported

The following tables list the supported operating systems and virtualized operating systems. For the latest OS support, see <http://intel.com/support/ethernetos>.

Table 3. Operating Systems Supported for Physical Function Driver for the E610

Operating System	In-box/ In-distro/ In-kernel	Out-of- tree/ Async	Supported in Release							Notes
			30.0 ²	30.0.1	30.1.1	30.4	31.0 through 31.1	31.2	31.2.1	
Azure Local 2511	No	No	---	---	---	---	X	X	X	a
Azure Stack HCI 24H2	No	No	X	X	X	X	X	X	X	a
Azure Stack HCI 23H2	No	Yes	X	X	X	X	X	X	X	a
Azure Stack HCI 22H2	No	Yes	X	X	X	X	X	X	X	a
Windows Server 2025	No	Yes	X	X	X	X	X	X	X	a
Windows Server 2022	No	Yes	X	X	X	X	X	X	X	a
Windows Server 2019	No	Yes	---	---	---	---	X	X	X	a
Windows 11	No	Yes ³	X ³	X ³	X ³	X ³	X ³	X ³	X ³	a
Windows 10	No	Yes ³	---	---	---	---	X ³	X ³	X ³	a
Linux Kernel 6.18	Yes ⁵	Yes ⁴	---	---	---	---	X ⁴	X ⁴	X ⁴	a
Linux Kernel LTS 6.12/6.6/6.1/5.15/5.10	No	Yes ⁴	X ⁴	X ⁴	X ⁴	X ⁴	X ⁴	X ⁴	X ⁴	a
Linux RHEL 10.2	Yes ⁵	Yes	---	---	---	---	---	---	X	a
Linux RHEL 10.1	Yes ⁵	Yes	---	---	---	---	X	X	X	a
Linux RHEL 10.0	Yes ⁵	Yes	---	---	X	X	X	X	X	a

continued...

Operating System	In-box/ In-distro/ In-kernel	Out-of- tree/ Async	Supported in Release							Notes
			30.0 ²	30.0.1	30.1.1	30.4	31.0 through 31.1	31.2	31.2.1	
Linux RHEL 9.8	Yes ⁵	Yes	---	---	---	---	---	---	X	a
Linux RHEL 9.7	Yes ⁵	Yes	---	---	---	---	X	X	X	a
Linux RHEL 9.6	Yes ⁵	Yes	---	---	X	X	X	X	X	a
Linux RHEL 8.10/9.4/9.5	No	Yes	X	X	X	X	---	---	---	a
Linux: SLES 16	Yes ⁵	Yes	---	---	---	---	X	X	X	a
Linux: SLES 15 SP7	Yes ⁵	Yes	---	---	---	X	X	X	X	a
Linux: SLES 15 SP6	No	Yes	X	X	X	X	X	X	X	a
Linux: SLES 15 SP5	No	Yes	X	X	X	---	---	---	---	a
Ubuntu 26.04	No	Yes	---	---	---	---	---	X	X	a
Ubuntu 24.04	No	Yes	X	X	X	X	X	X	X	a
Ubuntu 22.04	No	Yes	X	X	X	X	X	X	X	a
VMware vSphere 9.1 (ESXi 9.1)	No	Yes ¹	---	---	---	---	---	X	X	a,b
VMware vSphere 9.0 (ESXi 9.0)	No	Yes ¹	---	---	---	---	X	X	X	a,b
VMware vSphere 8 (ESXi 8.x)	No	Yes ¹	X	X	X	X	X	X	X	a,b
VMware vSphere 7 (ESXi 7.x)	No	Yes ¹	X	X	X	X	---	---	---	a,b
FreeBSD 15.0	Yes	Yes	---	---	---	---	X	X	X	a
FreeBSD 14.4	No	Yes	---	---	---	---	---	X	X	a
FreeBSD 14.3	No	Yes	---	---	---	---	X	X	X	a
FreeBSD 13.5	No	Yes	---	---	---	---	X	X	X	a
FreeBSD 14.1/14.2	No	Yes	X	X	X	X	---	---	---	a
FreeBSD 13.3/13.4	No	No	X	X	X	X	---	---	---	a
UEFI 2.9/2.8/2.7/2.6/2.4/2.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
continued...										

Operating System	In-box/ In-distro/ In-kernel	Out-of- tree/ Async	Supported in Release							Notes
			30.0 ²	30.0.1	30.1.1	30.4	31.0 through 31.1	31.2	31.2.1	
Option ROM support (Legacy PXE, x64 UEFI driver)	N/A	N/A	X	X	X	X	X	X	X	
<i>Note:</i> a. 64 bit only. b. Driver available at VMware website.										
<i>Notes:</i> 1. The VMware ESXi async drivers are developed by Intel. They are certified, signed, and officially supported by VMware. Releases of these drivers can be obtained through the VMware Compatibility Guide, "IO Devices" section. 2. This was a targeted production release. 3. The Windows Client drivers are not certifiable in Modern Standby systems. 4. The out-of-tree Linux driver(s) are only officially supported on the Kernels listed above. The driver(s) might compile successfully on an older kernel back to 3.10, but such configurations are not officially supported. 5. Refer to kernel documentation for detailed information on features supported.										

Table 4. Virtualized Operating Systems Supported for the E610

Virtualized OS	Host OS	PF Driver	Guest OS	Guest OS VF Driver
VMware	ESXi 9.0 (vSphere 9): GA ESXi 8.0 (vSphere 8): GA, U1, U2, U3	ESXi ixgben	RHEL 10.x RHEL 9.x SLES 16 SLES 15	ixgbevf
			Windows Server 2025 Windows Server 2022 Windows Server 2019	vxs
Linux	RHEL 10.x/KVM RHEL 9.x/KVM SLES 16/KVM SLES 15/KVM	Linux ixgbe	RHEL 10.x RHEL 9.x SLES 16 SLES 15	ixgbevf
			Windows Server 2025 Windows Server 2022 Windows Server 2019	vxs
Windows Hyper-V	Azure Local Azure Stack HCI Window Server 2025 Window Server 2022 Window Server 2019	ixw	RHEL 10.x RHEL 9.x SLES 16 SLES 15	ixgbevf
			Windows Server 2025 Windows Server 2022 Windows Server 2019	vxs

3.0 NVM and Software Compatibility

With Intel® Ethernet Network Adapters, both the firmware (device NVM image) and network drivers are field-serviceable, and the NVM image and network driver are updated as a matched set. Updating the device image and driver together can increase key features including performance and manageability.

The following table lists the sets of NVM images and Intel® Ethernet Controllers software releases that go together. Intel recommends that you update the NVM and Software Driver to compatible versions.

NOTE

Update to the device driver for given release prior to running the NVM Update tool.

Table 5. Software/NVM Compatibility for the E610

Version	Release							
	30.0	30.0.1	30.1.1	30.4	31.0	31.1	31.2	31.2.1
NVM Version	1.00	1.10	1.21	1.3	1.41	1.50	1.60	1.60
Firmware Version	4.7.8.12	4.7.8.18	4.7.9.6	4.7.10.3	4.7.11.4	4.7.12.1	4.7.13.1	4.7.13.1
NVM Update Tool Version	1.42.24.4	1.42.24.6	1.43.8.0	1.42.20.0	1.43.30.0	1.43.32.0	1.43.36.0	1.43.36.0
ixw (Windows)	1.2.43.0 PV	1.2.43.0	1.2.43.0	1.4.73.0	1.6.25.0	1.7.44.0	1.8.54.0	1.8.54.0
vxs (Windows)	2.3.2.4	2.3.2.4	2.3.2.4	2.3.2.4	2.3.7.0	2.3.7.0	2.3.7.0	2.3.7.0
ixgbe (Linux)	6.0.5	6.0.6	6.1.5	6.2.5	6.3.4	6.3.6	6.4.1	6.4.4
ixgbev (Linux)	5.0.2	5.0.2	5.1.3	5.1.6	5.2.2	5.2.2	5.3.25	5.3.36
ixgben (ESX) ¹	1.19.3	1.19.3	1.20.1.0	1.20.2.0	1.23.3.0	1.24.1.0	1.24.1.0	1.24.1.0
continued...								

Version	Release							
	30.0	30.0.1	30.1.1	30.4	31.0	31.1	31.2	31.2.1
ix (FreeBSD)	3.4.29	3.4.29	3.4.29	3.4.31	3.4.37	3.4.38	3.4.38	3.4.38
ixv(FreeBSD)	1.6.9	1.6.9	1.6.9	1.6.9	1.6.12	1.6.12	1.6.12	1.6.12

Note: 1. Drivers posted in VCG (VMware Compatibility Guide) might differ in version from drivers listed in this document at publication.

Additionally, the NVM update package that comes with the Intel® Ethernet Controllers Software Release allows updates from older NVM versions. The following table indicates the version of NVM from which the tool allows updates.

Table 6. NVM Transition Support for the E610

Current (Old) NVM	New NVM (with Associated Tools, and Base Driver Version) ^{1,2}						
	1.00 ³	1.1 ³	1.21 ³	1.3	1.41	1.50	1.60
1.00 ³	N/A ³	Yes	Yes	Yes	Yes	Yes	Yes
1.1 ³	No	N/A ³	Yes	Yes	Yes	Yes	Yes
1.21 ³	Yes	Yes	N/A ³	Yes	Yes	Yes	Yes
1.3	Yes	Yes	Yes	N/A ³	Yes	Yes	Yes
1.41	Yes	Yes	Yes	Yes	N/A ³	Yes	Yes
1.50	Yes	Yes	Yes	Yes	Yes	N/A ³	Yes
1.60	Yes	Yes	Yes	Yes	Yes	Yes	N/A ³

Notes: 1. NVM transition must be done with the Tools and Base Driver from the latest release. Refer to [Table 5](#) for supported NVM, Tools, and Base Driver versions.
2. Each step of a NVM transition requires a reboot (PCIe reset).
3. Updating to same image again is allowed.

NOTE

The MinSRev on your device determines if you can downgrade to an older SRev. For details on how this works, see the [Minimum Security Revision Control for Intel® Ethernet Products Application Note](#) (Doc ID: 635205).

4.0 DPDK Compatibility

The following table lists the driver, firmware, and package versions recommended for use with the supported DPDK version.

Table 7. DPDK Recommended Matching List

DPDK	Release	ixgbe Kernel Driver	ixgbevf Kernel Driver	NVM Version	Firmware
24.11.1	30.0	6.0.5	5.0.2	1.00	4.7.8.12
24.11.1	30.0.1	6.0.6	5.0.2	1.10	4.7.8.18
25.03	30.1.1	6.1.5	5.1.3	1.21	4.7.9.6
25.07	30.4	6.2.5	5.1.6	1.3	4.7.10.3
25.11	31.0	6.3.4	5.2.2	1.41	4.7.11.4
25.11	31.1	6.3.6	5.2.2	1.50	4.7.12.1
26.03	31.2	6.4.1	5.3.25	1.60	4.7.13.1
26.03	31.2.1	6.4.4	5.3.36	1.60	4.7.13.1