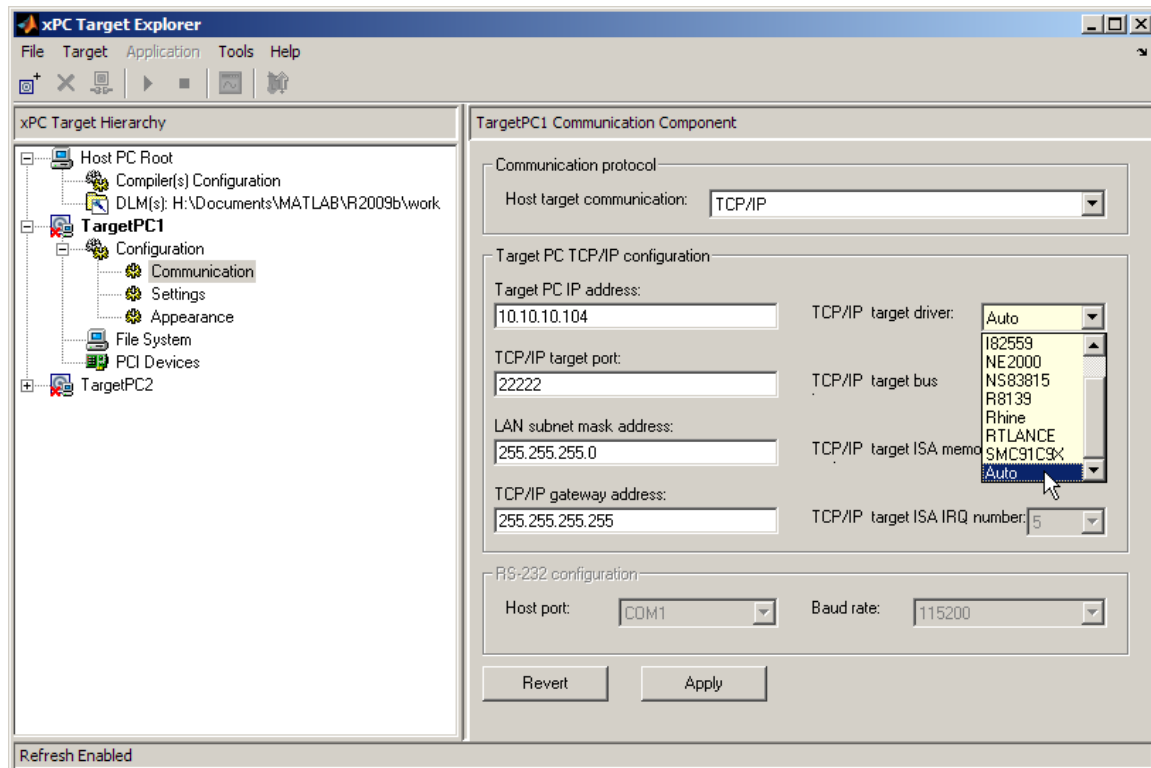


xPC Target Version 4.2 (R2009b)

Requirements for Host-Target TCP/IP Communication

This document lists the PCI-based¹ Ethernet chipsets that are supported by the xPC Target product. You can perform host PC-target PC TCP/IP communication *only if* the target PC has an installed network adapter/board with one of the supported chipsets (see *Supported Ethernet Chipsets*).

This document groups the supported chipsets by TCP/IP driver name to indicate the family of chipsets compatible with the specified driver. The drivers (e.g., I82559) correspond to the “TCP/IP target driver” list entries on the xPC Target Explorer Communication pane. Each target PC in the xPC Target Hierarchy has its own Communication pane.



xPC Target Explorer's TCP/IP target driver list.

Chipsets are identified by a Vendor ID, Device ID pair. For example, an Ethernet adapter with the Intel 82551QM chipset has the pair (Vendor ID, Device ID) of (0x8086, 0x1059). To confirm xPC Target support for an adapter, you must determine its chipset Vendor ID, Device ID pair and verify it is in the *Supported Ethernet Chipsets* list provided below. You can obtain this information from one of the following:

- Board manufacturer.
- PCI vendor and device list database (www.pcidatabase.com).
- xPC Target function `getxpcpci`.

To use the latter method, create an xPC Target boot disk configured with RS-232 as the host PC-target PC communication protocol. Connect the host PC and target PC with a null modem cable, then boot the target PC. Enter the `getxpcpci('all')` in the MATLAB Command Window. In the resulting display, look for the “Ethernet Controller” section (or sections if your target PC has more than one Ethernet adapter). For example

¹ ISA-based boards having NE2000 and SMC91C9X chipsets are also supported.

```
>> getxpcpci('all')
```

```
List of installed PCI devices:
```

```
Intel                      *****
  Bus 0, Slot 0, IRQ 0
  Host Bridge
  VendorID 0x8086, DeviceID 0x7190, SubVendorID 0x0000, SubDeviceID 0x0000
```

```
Intel                      *****
  Bus 0, Slot 1, IRQ 0
  PCI-to-PCI Bridge
  VendorID 0x8086, DeviceID 0x7191, SubVendorID 0x0000, SubDeviceID 0x0000
```

```
Intel                      *****
  Bus 0, Slot 8, IRQ 10
  Ethernet Controller
  VendorID 0x8086, DeviceID 0x1209, SubVendorID 0x8086, SubDeviceID 0x0000
```

```
*****                      *****
  Bus 1, Slot 0, IRQ 9
  VGA Controller
  VendorID 0x102c, DeviceID 0x00c0, SubVendorID 0x102c, SubDeviceID 0x00c0
```

In this example, the Ethernet adapter chipset pair (Vendor ID, Device ID) is (0x8086, 0x1209). In the *Supported Ethernet Chipsets* list, you'll find this pair under the I82559 driver section; hence, the adapter is supported and will be recognized by the xPC Target kernel by selecting the I82559 TCP/IP target driver as illustrated above.

If you know your target PC has a supported Ethernet adapter, create an xPC Target boot image/disk using TCP/IP as the host PC-target PC protocol. Along with the other TCP/IP options, ensure the target driver is correctly set before building the boot image/disk.

Supported Ethernet Chipsets

Driver: [NE2000 \(Novell Ethernet 2000 series\)](#)

- (0x10EC, 0x8029), "Realtek 10 Mbit NE2000 compatible (Realtek 8129 based)"
- (0x10EC, 0x8129), "Realtek 8129 NE2000 compatible"
- (0x1500, 0x0940), "Winbond 89C940 NE2000 compatible"
- (0x1500, 0x5A5A), "Winbond 89C940 NE2000 compatible"
- (0x8C4A, 0x1980), "Winbond 89C940 NE2000 compatible (mis-programmed chip)"
- (0x11F6, 0x1401), "Compex RL2000 NE2000 compatible"
- (0x8E2E, 0x3000), "KTI ET32P2 NE2000 compatible"
- (0x4A14, 0x5000), "NetVin NV500SC NE2000 compatible"
- (0x1106, 0x0926), "VIA 86C926 NE2000 compatible (Amazon PCI Ethernet Controller)"
- (0x10BD, 0x0E34), "SureCom NE34 NE2000 compatible"
- (0x12C3, 0x0058), "Holtek HT80229 NE2000 compatible"
- (0x12C3, 0x5598), "Holtek HT80229 NE2000 compatible"

Driver: I82559 (Intel 10/100 Ethernet series)

(0x8086, 0x1030), "82559 In Business Card"

(0x8086, 0x1031), "82801CAM"

(0x8086, 0x1032), "82801CAM"

(0x8086, 0x1033), "82801CAM"

(0x8086, 0x1034), "82801CAM"

(0x8086, 0x1035), "82801CAM"

(0x8086, 0x1036), "82801CAM"

(0x8086, 0x1037), "82801CAM"

(0x8086, 0x1038), "82801CAM"

(0x8086, 0x1039), "82562ET"

(0x8086, 0x103A), "82562ET"

(0x8086, 0x103B), "82562ET"

(0x8086, 0x103C), "82562ET"

(0x8086, 0x103D), "82562ET"

(0x8086, 0x103E), "82562ET"

(0x8086, 0x1050), "82562EZ"

(0x8086, 0x1051), "82562ET"

(0x8086, 0x1059), "82551QM"

(0x8086, 0x1064), "82562EZ"

(0x8086, 0x1068), "82801FBM"

(0x8086, 0x1209), "82559ER"

(0x8086, 0x1229), "82559"

(0x8086, 0x2449), "82562"

Driver: RTLANCE (AMD PCnet-FAST Ethernet series)

(0x1022, 0x2000), "AM79c971"

Driver: R8139 (Realtek R8139 series)

(0x10EC, 0x8139), "Realtek"

(0x1113, 0x1211), "SMC1211TX EZCard/Accton MPX5030"

(0x1039, 0x0900), "SiS 900: 8139B"

(0x1039, 0x7016), "SiS 7016: 8139C"

(0x1186, 0x1300), "DLink 530 TX+"

Driver: 3C90x (3Com Etherlink 90x series)

(0x10B7, 0x9200), "3c905c"

(0x10B7, 0x9055), "3c905B-TX"

(0x10B7, 0x9005), "3c900B Combo"

(0x10B7, 0x1000), "3c905CX-TXNM"

(0x10B7, 0x9051), "3c905-T4"

(0x10B7, 0x9056), "3c905B-T4"

(0x10B7, 0x9058), "3c905B Combo"

(0x10B7, 0x905A), "3c905B-FX"

Driver: NS83815 (National Semiconductor 83815 series)

(0x100B, 0x0020), "DP83815"

Driver: I8254x (Intel Gigabit Ethernet series)

(0x8086, 0x1000), "82542"

(0x8086, 0x1001), "82543GC_FIBER"

(0x8086, 0x1004), "82543GC_COPPER"

(0x8086, 0x1008), "82544EI_COPPER"

(0x8086, 0x1009), "82544EI_FIBER"

(0x8086, 0x100C), "82544GC_COPPER"

(0x8086, 0x100D), "82544GC_LOM"

(0x8086, 0x100E), "82540EM"

(0x8086, 0x100F), "82545EM_COPPER"

(0x8086, 0x1010), "82546EB_COPPER"

(0x8086, 0x1011), "82545EM_FIBER"

(0x8086, 0x1012), "82546EB_FIBER"

(0x8086, 0x1013), "82541EI"

(0x8086, 0x1015), "82540EM_LOM"

(0x8086, 0x1016), "82540EP_LOM"

(0x8086, 0x1017), "82540EP"

(0x8086, 0x1018), "82541EI_MOBILE"

(0x8086, 0x1019), "82547EI"

(0x8086, 0x101D), "82546EB_QUAD_COPPER"

Driver: I8254x (Intel Gigabit Ethernet series) – Continued

(0x8086, 0x101E), "82540EP_LP"
(0x8086, 0x1026), "82545GM_COPPER"
(0x8086, 0x1027), "82545GM_FIBER"
(0x8086, 0x1028), "82545GM_SERDES"
(0x8086, 0x105E), "82571EB_COPPER"
(0x8086, 0x105F), "82571EB_FIBER"
(0x8086, 0x1060), "82571EB_SERDES"
(0x8086, 0x1075), "82547GI"
(0x8086, 0x1076), "82541GI"
(0x8086, 0x1077), "82541GI_MOBILE"
(0x8086, 0x1078), "82541ER"
(0x8086, 0x1079), "82546GB_COPPER"
(0x8086, 0x107A), "82546GB_FIBER"
(0x8086, 0x107B), "82546GB_SERDES"
(0x8086, 0x107C), "82541GI_LF"
(0x8086, 0x107D), "82572EI_COPPER"
(0x8086, 0x107E), "82572EI_FIBER"
(0x8086, 0x107F), "82572EI_SERDES"
(0x8086, 0x108A), "82546GB_PCIE"
(0x8086, 0x108B), "82573E"
(0x8086, 0x108C), "82573E_IAMT"
(0x8086, 0x1096), "80003ES2LAN_COPPER_DPT"
(0x8086, 0x1098), "80003ES2LAN_SERDES_DPT"
(0x8086, 0x1099), "82546GB_QUAD_COPPER"
(0x8086, 0x109A), "82573L"
(0x8086, 0x10B5), "82546GB_QUAD_COPPER_KSP3"
(0x8086, 0x10B9), "82572EI"

Driver: Rhine (VIA VT6105L PCI Ethernet series)

(0x1106, 0x3106), "VT6105L_Rhine_III"

(0x1106, 0x3053), "VT6105L_2_Rhine_III"

(0x1106, 0x2006), "VT6105_Rhine_III"

(0x1106, 0x3065), "VT8235_Rhine_II"

(0x1106, 0x6100), "VT86C100A_Rhine_II"

(0x1106, 0x3043), "VT86C100A_2_Rhine_II"

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