

## Serial High-Speed WAN Interface Cards for Cisco 1861 Router

Cisco® integrated services routers offer a wide variety of WAN connectivity modules to accommodate the range of application needs in customer networks. The new Cisco 1-Port and 2-Port Serial High-Speed WAN Interface Cards (HWICs) provide serial WAN connectivity services for the Cisco 1861 Integrated Services Router deployed in small and medium-sized businesses (SMBs) and enterprise branch offices.

### Product Overview

Cisco serial HWICs provide serial WAN connectivity to remote sites using Cisco High-Level Data Link Control (HDLC), Point-to-Point Protocol (PPP), or Frame Relay encapsulation. These HWICs also support older protocol transport such as Systems Network Architecture (SNA), Synchronous Data Link Control (SDLC) Protocol, Binary Synchronous Communications Protocol (Bisync), and X.25.

Cisco offers two serial HWICs for the Cisco 1861:

- 1-Port Serial High-Speed WAN Interface Card
- 2-Port Serial High-Speed WAN Interface Card

**Figure 1.** Cisco Serial HWICs



### Feature Summary

- 1 or 2 serial ports
- Maximum data rate of 8 Mbps per port on the 2-port serial HWIC
- Support for serial protocols: EIA-232, EIA-449, EIA-530, EIA-530A, V.35, X.21
- Support for Lead Manipulation
- Capability to measure the incoming clock rate of synchronous ports in data terminal equipment (DTE) mode

### Product Specifications

Table 1 lists the product specifications of the new serial HWICs and compares them with specifications for the Cisco 1-Port and 2-Port Serial WAN Interface Cards (WICs).

**Table 1.** Cisco Serial HWIC and WIC Specifications

Specification	1-Port HWIC (HWIC-1SER)	2-Port HWIC (HWIC-2SER)	1-Port WIC (WIC-1T)	2-Port WIC (WIC-2T)
<b>Synchronous Support</b>	Yes	Yes	Yes	Yes
<b>Synchronous Maximum Speed (per Port)</b>	2 Mbps	8 Mbps	2.048 Mbps	8 Mbps
<b>Asynchronous Support</b>	No	No	Yes	Yes
<b>Asynchronous Maximum Speed (per Port)</b>	–	–	115.2 Kbps	115.2 Kbps
<b>Bisync Support</b>	Yes	Yes	Yes	Yes
<b>Serial Protocols</b>	<ul style="list-style-type: none"> <li>• EIA-232, EIA-449,</li> <li>• EIA-530, EIA-530A,</li> <li>• V.35, X.21</li> </ul>	<ul style="list-style-type: none"> <li>• EIA-232, EIA-449,</li> <li>• EIA-530, EIA-530A,</li> <li>• V.35, X.21</li> </ul>	<ul style="list-style-type: none"> <li>• EIA-232</li> <li>• EIA-449</li> <li>• EIA-530</li> <li>• V.35</li> <li>• X.21</li> </ul>	<ul style="list-style-type: none"> <li>• EIA-232</li> <li>• EIA-449</li> <li>• EIA-530</li> <li>• EIA-530A</li> <li>• V.35</li> <li>• X.21</li> </ul>
<b>Lead Manipulation</b>	Yes	Yes	No	No
<b>Network Clock Synchronization</b>	Yes	Yes	No	No

## Connectors and Cabling

The Cisco serial HWICs have connectors and cabling that allow high port densities in the compact HWIC form factor. Tables 2 and 3 list connector and cabling specifications.

**Table 2.** Connectors and Cabling

HWIC	Connectors	Available Cables
1-Port HWIC 2-Port HWIC	Smart Serial	See Table 3

## Smart Serial Cabling

The Cisco 2-Port Serial HWIC and 1-Port Serial HWIC each have two Smart Serial ports and one Smart Serial port respectively. These ports use the same connectors and cabling as the Cisco 4-Port Serial HWIC.

**Table 3.** Smart Serial Cabling for Cisco Serial HWICs

Product Number	Cable Type	Length	Connector Type
CAB-SS-V35MT	V.35 DTE	10 ft (3m)	Male
CAB-SS-V35FC	V.35 DCE	10 ft (3m)	Female
CAB-SS-232MT	EIA/TIA-232 DTE	10 ft (3m)	Male
CAB-SS-232FC	EIA/TIA-232 DCE	10 ft (3m)	Female
CAB-SS-449MT	EIA/TIA-449 DTE	10 ft (3m)	Male
CAB-SS-449FC	EIA/TIA-449 DCE	10 ft (3m)	Female
CAB-SS-X21MT	X.21 DTE	10 ft (3m)	Male
CAB-SS-X21FC	X.21 DCE	10 ft (3m)	Female
CAB-SS-530MT	EIA/TIA-530 DTE	10 ft (3m)	Male
CAB-SS-530AMT	EIA/TIA-530A DTE	10 ft (3m)	Male

## Compliance and Hardware Specifications

### Agency Approvals

- UL 1950 (United States)
- CSA-C22.2 #950 (Canada)
- EN60950 (Europe)
- TUV GS (Germany)
- IEC 950 (International)

### Immunity

- EN300386
- EN55024/CISPR24
- EN50082-1

### Emissions

- FCC Part 15 Class A
- ICES-003 Class A
- EN55022 Class A
- CISPR22 Class A
- AS/NZS 3548 Class A
- VCCI Class A
- EN 300386
- EN61000-3-3
- EN61000-3-2

### Physical Specifications

- Single-width HWIC, no slot restrictions
- Dimensions (H x W x D) 0.8 x 3.1 x 5.6 in. (2.1 x 7.9 x 14.2 cm)

### Environmental Specifications

- Operating temperature: 32 to 104°F (0 to 40°C)
- Storage temperature: -4 to 149°F (-20 to 65°C)
- Relative humidity: 10 to 90 percent, noncondensing

### Platform Support

The Cisco serial HWICs are supported on the onboard HWIC slot of the Cisco 1861 Integrated Services Router. The minimum Cisco IOS® Software Release is 12.4(11)XW.

### Ordering Information

The Cisco serial HWICs are currently available for order from the Cisco Ordering Tool.

Table 4 lists the product numbers of the Cisco serial HWICs.

**Table 4.** Product Numbers

Product Number	Description
HWIC-1SER	1-Port Serial High-Speed WAN Interface Card
HWIC-2SER	2-Port Serial High-Speed WAN Interface Card

## Service and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

## For More Information

For more information about the Cisco 1-Port and 2-Port Serial High-Speed WAN Interface Cards and the Cisco 1861 Integrated Services Router, please visit

[http://www.cisco.com/en/US/products/ps5949/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/ps5949/products_data_sheets_list.html) or contact your local account representative.



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