Cisco HWIC-1GE-SFP Datasheet



Cisco HWIC-1GE-SFP GigE High Speed WIC With One SFP Slot

HWIC-1GE-SFP

Cisco HWIC-1GE-SFP GigE High Speed WIC With One SFP Slot

The single-port Cisco Gigabit Ethernet HWIC provides Gigabit Ethernet optical and copper connectivity in a compact form factor for all Cisco Integrated Service Routers (ISRs).

The Gigabit Ethernet HWIC enables branch offices to cost-effectively use high-speed uplinks in numerous environments. The enhanced performance of Gigabit Ethernet in Cisco ISRs to enable new applications and services, as well as provide greater capacity for existing inter-VLAN routing and bridging capabilities. Additionally, branch offices can now connect to metropolitan-area networks (MANs).

Note: The HWIC provides Gigabit Ethernet connectivity but will not support line rate since the throughput is limited by the platforms.

For flexibility, the HWIC includes one Small Form-Factor Pluggable (SFP) slot to carry any Cisco copper or optical SFP (Table 1), allowing customers to use different SFPs for special distance, cost, existing infrastructure, and future expansion requirements.

Cisco IOS ® Software provides enhanced capabilities such as quality of service (QoS), Multiprotocol Label Switching (MPLS), IP Security (IPSec), and Layer 3 VPNs. Since this is a true routed port card, the user can configure an IP address directly on the HWIC-1GE-SFP interface and does not have to configure the port for VLAN trunking as is done in Switched Virtual Interface (SVI) configurations.

Table 1. Cisco Gigabit Ethernet HWIC Product Part Numbers and Descriptions

Part Number	Product Description
HWIC-1GE-SFP	Gigabit Ethernet HWIC with One SFP
	Slot
0.50	
SFPs	
GLC-T=	1000BASE-T SFP
	†
GLC-LH-SM=	Gigabit Ethernet SFP, LC connector,
	LX/LH transceiver
	0: 1:454
GLC-SX-MM=	Gigabit Ethernet SFP, LC connector, SX transceiver
	Hanselver
GLC-ZX-SM=	1000BASE-ZX SFP
Coarse Wavelength Division Multiplexing (CWDM) SFPs	
CWDM-SFP-1470=	CWDM 1470 NM SED Gigshit Ethornot
GVVDIVI-3FF-1410=	CWDM 1470 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1490=	CWDM 1490 NM SFP Gigabit Ethernet
	and 1G/2G Fibre Channel
	L J

CWDM-SFP-1510=	CWDM 1510 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1530=	CWDM 1530 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1550=	CWDM 1550 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1570=	CWDM 1570 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1590=	CWDM 1590 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel
CWDM-SFP-1610=	CWDM 1610 NM SFP Gigabit Ethernet and 1G/2G Fibre Channel

Features

- Ethernet and VLAN Features
 - IEEE802.3 with IEEE802.2 Service Advertising Protocol (SAP)
 - IEEE802.3 with IEEE802.2 and Subnetwork Access Protocol (SNAP)
 - IEEE 802.1Q VLAN tagging
 - Flow control (802.3x)
 - Gigabit EtherChannel® for link redundancy
- Network Management Features
 - CiscoWorks
 - Simple Network Management Protocol (SNMP) support
 - Remote Monitoring (RMON) support

- Cisco NetFlow accounting
- QoS Features
 - Weighted Random Early Detection (WRED)
 - Precedence setting and mapping (802.1p)
 - Committed access rate (CAR)
 - Access control lists (ACLs)
 - MAC address filtering
 - Extended ACLs
 - Voice and remaining QoS features, per platform and per Cisco IOS Software release

Additional Features

- Jumbo frame support up to 9576 bytes
- Cisco Group Management Protocol and Internet Group Management Protocol (IGMP) for multicasting
- High availability, supporting Hot Standby Router Protocol (HSRP), Virtual Router Redundancy Protocol (VRRP), and Gateway Load Balancing Protocol (GLBP)
- Hot insertion and removal for SFPs on all platforms
- Media or SFP type display through a command-line interface (CLI)
- Gigabit Ethernet Applications
 - In a branch office, the Cisco Gigabit Ethernet HWIC provides a high-speed uplink. Figure 2 shows the HWIC being used to bridge non-routable protocols, while providing Layer 3 connectivity. The HWIC is also useful in situations that require IEEE 802.1q inter-VLAN routing and in any LAN requiring fiber connectivity.

Specifications

- Minimum Memory Requirements
 - For information regarding memory requirements, please refer to the hardware-software compatibility matrix or the Cisco IOS Software release notes.
- Ethernet Specifications
 - IEEE 802.3 with 802.2 SAP
 - IEEE 802.3 with 802.2 and SNAP
 - IEEE 802.1p
 - IEEE 802.1q VLAN
 - Gigabit Ethernet IEEE 802.3z, IEEE 802.3x, IEEE 802.3ab
- Agency Approvals
 - UL 1950 (United States)
 - CSA-C22.2 #950 (Canada)

- EN60950 (Europe)
- TUV GS (Germany)
- IEC 950 (International)

• Immunity

- o EN300386
- o EN55024/CISPR24
- o EN50082-1

• Emissions

- FCC Part 15 Class A
- o ICES-003 Class A
- o EN55022 Class A
- CISPR22 Class A
- o AS/NZS 3548 Class A
- VCCI Class A
- o EN 300386
- EN61000-3-3
- o EN61000-3-2
- Physical Specifications
 - Single-wide HWIC, no slot restrictions
 - Dimensions (H x W x D) 0.8 x 3.1 x 4.8 in. (2.1 x 7.9 x 12.2 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, non-condensing

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