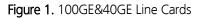# NE20E-S Series 100GE&40GE Line Cards

Product Overview

Huawei NE20E-S series universal service routers support 100GE&40GE line cards.

Figure 1. 100GE&40GE Line Cards

2 x 100G QSFP28/1x100G QSFP28+4x 10GBase-SFP+MACsec

2x100GE-QSFP28

1x100GE-CFP2(03032AML)

1x100G QSFP28+MACsec

1x100GE-CFP2(03032TTY)

1x40GE-CFP

Product Features

Since mid-1990s, the network capacity has quadrupled every five or six years from 622 Mbps through 2.5 Gbps to the current 10 Gbps. New-generation computing applications and technologies, such as server virtualization and cloud computing, data center optical fiber consolidation, and end users' requirements for high-performance computing, create demand for a new 40Gbps/100Gbps era and promote the application of 40GE/100GE line cards.

To improve the link rate, multiple links are typically bundled into a higher-rate link using link aggregation, which increases the complexity of the spanning tree architecture and brings more loop risks. Link aggregation may cause network bottlenecks over time. Using 40GE/100GE line cards to process traffic at the aggregation and core layers can resolve this problem by simplifying networks and reducing OPEX.

Huawei NE20E-S series 40GE/100GE line cards can be used at the data center egress routers or data center core/aggregation layer devices.

Product Compatibility

Table 1. 100GE/40GE Line Cards Compatible Chassis ("●" indicates supported items, "-" indicates unsupported items) (1)

BOM	Order Name	Description	NE20E-S4	NE20E-S8	NE20E-S16	NE20E-S8A	NE20E-S16A
03032VEM	CR5DE2NE4X10	2-Port 100GBase-QSFP28/1-Port100GBase-QSFP28+4-Port 10GBase-SFP+MACsec Interface Card	-	-	-	●	-
03032VEN	CR5D00E1NB20	1-Port 100GBase-QSFP28+MACsec Interface Card	-	-	-	●	●
03032TTW	CR2D00E2NF10	2-Port 100GBase-QSFP28 Physical Interface Card(PIC)	-	-	-	●	-
03032TTY	CR2D00E1NC11	1-Port 100GBase-CFP2Physical Interface Card(PIC)	-	-	●	●	●
03032AML	CR2D00E1NC10	1-Port 100GBase-CFP2 Physical Interface Card(PIC)	-	-	●	●	●
03031LPW	CR2D00E1MF70	1-Port 40GBase-CFP Physical Interface Card(PIC)	●	●	●	●	●

Table 2. 100GE/40GE Line Cards Compatible Chassis ("●" indicates supported items, "-" indicates unsupported items) (2)

BOM	Order Name	Description	NE20E-S2E	NE20E-S2F
03031LPW	CR2D00E1MF70	1-Port 40GBase-CFP Physical Interface Card(PIC)	-	●

Product Specifications

Table 3. 2-Port 100GBase-QSFP28/1-Port100GBase-QSFP28+4-Port 10GBase-SFP+MACsec Interface Card CM (Default Enable 1*100GE+4*10GE) Specifications

Item	Description
Order Name	CR5DE2NE4X10
Silkscreen	2x100GE-4x10G
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	48.0 W
Typical heat dissipation	145.99 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	QSFP28 , SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap.

Table 4. 1-Port 100GBase-QSFP28+MACsec Interface Card Specifications

Item	Description
Order Name	CR5D00E1NB20
Silkscreen	1x100GE-QSFP28
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.7 kg (1.54 lb)
Typical power consumption	30.0 W

Item	Description
Typical heat dissipation	129.78 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	QSFP28
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap.

Table 5. 2-Port 100GBase-QSFP28 Physical Interface Card(PIC) Specifications

Item	Description
Order Name	CR2D00E2NF10
Silkscreen	2x100GE-QSFP28
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.7 kg (1.54 lb)
Typical power consumption	63.0 W
Typical heat dissipation	204.4 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	QSFP28
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap.

Table 6. 1-Port 100GBase-CFP2Physical Interface Card(PIC) Specifications

Item	Description
Order Name	CR2D00E1NC11
Silkscreen	1x100GE-CFP2
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	46.6 W

Item	Description
Typical heat dissipation	151.2 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	CFP2
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap.

Table 7. 1-Port 100GBase-CFP2 Physical Interface Card(PIC) Specifications

Item	Description
Order Name	CR2D00E1NC10
Silkscreen	1x100GE-CFP2
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	52.5 W
Typical heat dissipation	170.3 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	CFP2
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap

Table 8. 1-Port 40GBase-CFP Physical Interface Card(PIC) Specifications

Item	Description
Order Name	CR2D00E1MF70
Silkscreen	1x40GE-CFP
Dimensions (H x W x D)	19.8 mm x 193.8 mm x 209.3 mm (0.78 in. x 7.63 in. x 8.24 in.)
Weight	0.6 kg (1.32 lb)
Typical power consumption	23.0 W

Item	Description
Typical heat dissipation	74.6 BTU/hour
Ambient temperature	Long terms: 0 °C to 45 °C (32°F to 113°F) Short terms: -5 °C to 55 °C (23°F to 131°F)
Connector type	CFP
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP, and Ethernet_SNAP
Reliability and availability	Support for hot swap

For More Information

For more information about the Huawei NE20E-S Series Routers, visit http://e.huawei.com or contact us in the following ways:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Logging into the Huawei Enterprise technical support web: http://support.huawei.com/enterprise/
- Sending an email to the customer service mailbox: support_e@huawei.com

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