Product Overview

Huawei NE40E Series Universal Service Routers support 120Gbps integrated line processing units (LPUI-120 Series and LPUI-120-B Series). Both the LPUI-120 Series and LPUI-120-B Series line processing units handle all the network data-plane traffic-processing tasks of Huawei NE40E series universal service routers.

Product Features

NE40E Series 120G integrated line processing units includes 1-port 100GE, 2-port 40GE, and 10-Port/12-port 10GE line processing units, for flexible solution.

- 1-port 100GE: has industry-leading 100G line-rate Ethernet interface, which can replace a large number of 10GE link aggregation bundles to simplify network operations.

- 2-port 40GE: has 40G line-rate Ethernet interface, can be used to process traffic at the aggregation and core layers can resolve this problem by simplifying networks and reducing OPEX. It can be used at the data center egress routers or data center core/aggregation layer devices.

- 10-port/12-port 10GE : provides multiple 10 Gbit/s line-rate Ethernet interfaces and supports medium-scale 10 Gbit/s link aggregation.

These high-capacity integrated line processing units are designed to remove bandwidth bottlenecks that are caused by next-generation high-speed and high-requirement computing applications and technologies. These integrated line processing units provide economical, scalable, and reliable line-rate Ethernet and IP/MPLS services.

The 120G series integrated line processing units provide powerful service capability. The series integrated line processing units support the combination of IP, MPLS, Ethernet, L2VPN, and L3VPN services. In addition, the 120G series integrated line processing units support the 1588v2 feature, which allows for submicrosecond time synchronization based on specific hardware to ensure high-precision time synchronization between devices for applications and services that require 1588v2 clock synchronization, such as IP RAN and TDM migration. The 120G series integrated line processing units support IPv6, which helps implement smooth IPv4-to-IPv6 transition. The 120G series integrated line processing units have a flexible programmable architecture. Microcode programming can be used for new service deployment, without the need to replace hardware, which reduces investments. In addition, this architecture drastically shortens the technological innovation cycle and accelerates new service rollout, helping customers build flexible and scalable networks.

The 120G series integrated line processing units can dynamically change the number of forwarding chip processing cores, frequency, and bus bandwidth to compensate for service traffic changes, reducing boards' power consumption. The 120G Series line processing units also support dynamic frequency adjustment and intelligent fan speed adjustment, which significantly reduces power consumption, with less than 0.9 W for each gigabit, lowest in the industry.

◨ NOTE

Differences between the LPUI-120, LPUI-120-B and LPUI-102-E:

- LPUI-120 supports 1588v2, and supports L3VPN by default; does not support BRAS functions, such as Enhanced Dynamic Service Gateway (EDSG), by default. After being loaded with specific license, it supports BRAS functions.
- LPUI-120-B supports 1588v2, and does not support L3VPN by default. After being loaded with specific license, it supports L3VPN. LPUI-120-B does not support BRAS functions.
- LPUI-102-E supports L3VPN by default and supports BRAS functions by default. LPUI-102-E does not support 1588v2.

Product Compatibility

LPUI-120 Series Compatible Chassis

LPUI-120 Series Compatible Chassis("●" indicates supported items, "-" indicates unsupported items).

BOM	Order Name	Description	-	-	-	-	-	-
03054681	CR5D0L BXFA70	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-120)	●	●	●	●	●	●
03054682	CR5D0E 2MCA70	2-Port 40GBase LAN-CFP Integrated Line Processing Unit(LPUI-120)	●	●	●	●	●	●
03054683	CR5D00 E1NC76	1-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-120)	●	●	●	●	●	●
03054684	CR5D0L BXFA7B	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-120-B)	●	●	●	●	●	●
03054685	CR5D0E 2MCA7B	2-Port 40GBase LAN-CFP Integrated Line Processing Unit B(LPUI-120-B)	●	●	●	●	●	●
03054686	CR5D00 E1NC7B	1-Port 100GBase-CFP Integrated Line Processing Unit B(LPUI-120-B)	●	●	●	●	●	●
03057087	CR5DLA XFAJ7F	10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-120-E)	●	●	●	●	●	●
03057445	CR5D00 E1NC78	1-Port 100GBase-CFP2 Integrated Line Processing Unit (LPUI-120)	●	●	●	●	●	●
03057482	CR5D00 E1ND71	1-Port 100GBase-QSFP28 Integrated Line Processing Unit (LPUI-120)	●	●	●	●	●	●
03057446	CR5D00 E1NC7C	1-Port 100GBase-CFP2 Integrated Line Processing Unit B(LPUI-120-B)	●	●	●	●	●	●
03057483	CR5D00 E1ND72	1-Port 100GBase-QSFP28 Integrated Line Processing Unit B(LPUI-120-B)	●	●	●	●	●	●

LPUI-120 Series Compatible Optical/Electrical Modules

LPUI-120 Series Compatible Optical/Electrical Modules

BOM Number	Order Name	Board Name	Optical type supported

BOM Number	Order Name	Board Name	Optical type supported
03054681	CR5D0LBXFA70	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-120)	1Gbps electrical module 1.25Gbps eSFP optical module 1.25Gbps eSFP CWDM optical module 1.25Gbps eSFP BIDI optical module 125M~2.67Gbps eSFP DWDM optical module 10Gbps SFP+ optical module 10Gbps SFP+ CWDM optical module 10Gbps SFP+ BIDI optical module 10Gbps SFP+ DWDM optical module 1.25/9.953/10.3125Gbps SFP+ optical module
03054682	CR5D0E2MCA70	2-Port 40GBase LAN-CFP Integrated Line Processing Unit(LPUI-120)	40Gbps CFP optical module
03054683	CR5D00E1NC76	1-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-120)	100Gbps CFP optical module
03057087	CR5DLAXFAJ7F	10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-120-E)	10Gbps SFP+ optical module 10Gbps SFP+ CWDM optical module 10Gbps SFP+ BIDI optical module 10Gbps SFP+ DWDM optical module
03057445	CR5D00E1NC78	1-Port 100GBase-CFP2 Integrated Line Processing Unit (LPUI-120)	100Gbps CFP2 optical module **NOTE** When optical modules with the BOM number 02311LYG are used, 2x40G and 10x10G breakout optical fibers are not supported.
03054684	CR5D0LBXFA7B	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-120-B)	1Gbps electrical module 1.25Gbps eSFP optical module 1.25Gbps eSFP CWDM optical module 1.25Gbps eSFP BIDI optical module 125M~2.67Gbps eSFP DWDM optical module 10Gbps SFP+ optical module 10Gbps SFP+ CWDM optical module 10Gbps SFP+ BIDI optical module 10Gbps SFP+ DWDM optical module 1.25/9.953/10.3125Gbps SFP+

BOM Number	Order Name	Board Name	Optical type supported
			optical module
03054685	CR5D0E2MCA7B	2-Port 40GBase LAN-CFP Integrated Line Processing Unit B(LPUI-120-B)	40Gbps CFP optical module
03054686	CR5D00E1NC7B	1-Port 100GBase-CFP Integrated Line Processing Unit B(LPUI-120-B)	100Gbps CFP optical module
03057446	CR5D00E1NC79	1-Port 100GBase-CFP2 Integrated Line Processing Unit B(LPUI-120-B)	100Gbps CFP2 optical module
03057482	CR5D00E1ND71	1-Port 100GBase-QSFP28 Integrated Line Processing Unit (LPUI-120)	100Gbps QSFP28 optical module 40Gbps QSFP+ optical module
03057483	CR5D00E1ND72	1-Port 100GBase-QSFP28 Integrated Line Processing Unit B(LPUI-120-B)	100Gbps QSFP28 optical module 40Gbps QSFP+ optical module

12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-120) Specifications

12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-120) Specifications

Item	Description
Order Name	CR5D0LBXFA70
Silkscreen	LPUI-120 12x10GBase LAN/WAN-SFP+ -A
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	7.9 kg (17.42 lb)
Typical power consumption	201.7 W
Typical heat dissipation	654.3 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	SFP/SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

2-Port 40GBase LAN-CFP Integrated Line Processing Unit(LPUI-120) Specifications

2-Port 40GBase LAN-CFP Integrated Line Processing Unit(LPUI-120) Specifications

Item	Description
Order Name	CR5D0E2MCA70
Silkscreen	LPUI-120 2x40GBase LAN-CFP-A

Item	Description
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	9.6 kg (21.17 lb)
Typical power consumption	206.0 W
Typical heat dissipation	668.4 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	CFP
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

1-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-120) Specifications

1-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-120) Specifications

Item	Description
Order Name	CR5D00E1NC76
Silkscreen	LPUI-120 1x100GBase LAN-CFP-A
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	7.9 kg (17.42 lb)
Typical power consumption	200.7 W
Typical heat dissipation	651.1 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	Hot swappable.

1-Port 100GBase-CFP2 Integrated Line Processing Unit (LPUI-120) Specifications

1-Port 100GBase-CFP2 Integrated Line Processing Unit (LPUI-120) Specifications

Item	Description
Order Name	CR5D00E1NC78
Silkscreen	LPUI-120 1x100GBase-CFP2-A

Item	Description
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	8.0 kg (17.64 lb)
Typical power consumption	190.2 W
Typical heat dissipation	617.1 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	Hot swappable.

1-Port 100GBase-QSFP28 Integrated Line Processing Unit (LPUI-120) Specifications

1-Port 100GBase-QSFP28 Integrated Line Processing Unit (LPUI-120) Specifications

Item	Description
Order Name	CR5D00E1ND71
Silkscreen	LPUI-120 1x100GBase-QSFP28-A
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	7.9 kg (17.42 lb)
Typical power consumption	184.2 W
Typical heat dissipation	597.6 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	QSFP28/QSFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-120-B) Specifications

12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-120-B) Specifications

Item	Description
Order Name	CR5D0LBXFA7B
Silkscreen	LPUI-120-B 12x10GBase LAN/WAN-SFP+ -A

Item	Description
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	7.9 kg (17.42 lb)
Typical power consumption	201.7 W
Typical heat dissipation	654.3 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	SFP/SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

2-Port 40GBase LAN-CFP Integrated Line Processing Unit B(LPUI-120-B) Specifications

2-Port 40GBase LAN-CFP Integrated Line Processing Unit B(LPUI-120-B) Specifications

Item	Description
Order Name	CR5D0E2MCA7B
Silkscreen	LPUI-120-B 2x40GBase LAN-CFP-A
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	9.6 kg (21.17 lb)
Typical power consumption	206.0 W
Typical heat dissipation	668.4 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	CFP
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

1-Port 100GBase-CFP Integrated Line Processing Unit B(LPUI-120-B) Specifications

1-Port 100GBase-CFP Integrated Line Processing Unit B(LPUI-120-B) Specifications

Item	Description
Order Name	CR5D00E1NC7B
Silkscreen	LPUI-120-B 1x100GBase LAN-CFP-A

Item	Description
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	8.5 kg (18.74 lb)
Typical power consumption	200.7 W
Typical heat dissipation	651.1 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	Hot swappable.

1-Port 100GBase-CFP2 Integrated Line Processing Unit B(LPUI-120-B) Specifications

1-Port 100GBase-CFP2 Integrated Line Processing Unit B(LPUI-120-B) Specifications

Item	Description
Order Name	CR5D00E1NC79
Silkscreen	LPUI-120-B 1x100GBase-CFP2-A
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	8.0 kg (17.64 lb)
Typical power consumption	190.2 W
Typical heat dissipation	617.1 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	Hot swappable.

1-Port 100GBase-QSFP28 Integrated Line Processing Unit B(LPUI-120-B) Specifications

1-Port 100GBase-QSFP28 Integrated Line Processing Unit B(LPUI-120-B) Specifications

Item	Description
Order Name	CR5D00E1ND72
Silkscreen	LPUI-120-B 1x100GBase-QSFP28-A

Item	Description
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	7.9 kg (17.42 lb)
Typical power consumption	184.2 W
Typical heat dissipation	597.6 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	QSFP28/QSFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-120-E) Specifications

10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-120-E) Specifications

Item	Description
Order Name	CR5DLAXFAJ7F
Silkscreen	LPUI-120-E 10x10GBase LAN/WAN-SFP+ -E
Dimensions (H x W x D)	40.1 mm x 399.2 mm x 535.6 mm (1.58 in. x 15.72 in. x 21.09 in.)
Weight	8.2 kg (18.08 lb)
Typical power consumption	280.2 W
Typical heat dissipation	909.1 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	SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

For More Information

For more information about the   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

Huawei Technologies Co., Ltd.

Address:Huawei Industrial Base Bantian, Longgang Shenzhen 518129 People's Republic of China

Website:www.huawei.com