

## Product Overview

Huawei NE40E Series Universal Service Routers support 120 Gbps flexible card line processing units (LPUF-120 Series). The LPUF-120 Series line processing units handle all the network data-plane traffic-processing tasks of Huawei NE40E series universal service routers.

### [Line Processing Units and Flexible Cards of LPUF-120 Series](#)



Flexible Card Line Processing Unit(LPUF-120)



Flexible Card Line Processing Unit(LPUF-120) B



6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)



1-Port 100GBase-CFP Flexible Card A(P120-A)



1-Port 100GBase-CFP2 Flexible Card A(P120-A)



1-Port 100GBase-QSFP28 Flexible Card A(P120-A)



12-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)



24-Port 100/1000Base-X-SFP Flexible Card A(P101-A)



24-Port 1000Base-X-SFP Flexible Card E(P52-E)



5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A)



5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E)



1-Port 40GBase LAN-CFP Flexible Card A(P101-A)



8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120)



2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A)



20-Port 10/100/1000Base-RJ45 Flexible Card A(P51-A)



6-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E)



2-Port 50GBase/1-Port 100GBase-QSFP28 FlexE Flexible Card (P120)

## Product Features

The LPUF-120 Series supports 1-port 100GE, 1-port 40GE, 12-port/6-port/5-port 10GE, 24-port FE/GE, and 8-port/2-port POS flexible cards, for flexible solutions.

- 1-port 100GE flexible card: has industry-leading 100G line-rate Ethernet interface, which can replace a large number of 10GE link aggregation bundles to simplify network operations.
- 1-port 40GE flexible card: 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.
- 12-port/6-port/5-port 10GE flexible card: provides multiple 10 Gbit/s line-rate Ethernet interfaces and supports medium-scale 10 Gbit/s link aggregation.
- 24-port FE/GE flexible card: boasts high port density and supports compatibility and communications with standard fast Ethernet. It can be used for large-scale 10M, 100M, and 1000M Ethernet interconnection.
- 8-port/2-port POS flexible card: can be used for transmitting IP over SONET/SDH link, which can be used in the access/aggregation layer of LAN network and the uplink of WAN network.

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

LPUF-120 uses provides powerful service capability. LPUF-120 supports the combination of IP, MPLS, Ethernet, L2VPN, and L3VPN services. In addition, the LPUF-120 supports the 1588v2 feature (-E flexible card does not support 1588v2), 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.

LPUF-120 supports IPv6, which helps implement smooth IPv4-to-IPv6 transition. LPUF-120 has 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.

LPUF-120 Series 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. LPUF-120 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.

LPUF-120 Series line processing units and flexible cards support for online insertion and removal (OIR) without system impact, which offers maximum investment protection and flexibility by allowing operators to upgrade to future LPU on NE40E.

#### NOTE

Differences between the LPUF-120, LPUF-120-B and LPUF-120-E:

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

Differences between the -A flexible card and the -E flexible card:

- -A flexible card supports 1588v2 and can be used in LPUF-120, LPUF-120-B and LPUF-120-E.
- -E flexible card (P101-E/P51-E) has eTM sub-card, and does not support 1588v2, and can be used only in LPUF-120-E. P120 does not support 1588v2.

## Product Compatibility

### LPUF-120 Series Compatible Chassis

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

BOM	Order Name	Description	-	-	-	-	-	-
03030PM E	CR5D0L2 XFA71	2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A)	●	●	●	●	●	●
03030QK	CR5D0E	20-Port 10/100/1000Base-RJ45	●	●	●	●	●	●

BOM	Order Name	Description	-	-	-	-	-	-
N	EGEA70	Flexible Card A(P51-A)						
03031LU	CR5D00 P2XX72	2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A)	•	•	•	•	•	•
03031XQ J	CR5D0E FGFE71	24-Port 1000Base-X-SFP Flexible Card E(P52-E)	-	•	•	•	•	•
03031XQ D	CR5D0L2 XFE75	2-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P52-E)	•	•	•	•	•	•
03030RX S	CR5D00 P8UF70	8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120)	•	•	•	•	•	•
03030PM N	CR5D0E FGFA71	24-Port 100/1000Base-X-SFP Flexible Card A(P101-A)	•	•	•	•	•	•
03030PM K	CR5D0L5 XFA72	5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A)	•	•	•	•	•	•
03030PM Q	CR5D00 E1MC70	1-Port 40GBase LAN-CFP Flexible Card A(P101-A)	•	•	•	•	•	•
03030QD E	CR5D0L6 XFA70	6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)	•	•	•	•	•	•
03030PY U	CR5D00 E1NC75	1-Port 100GBase-CFP Flexible Card A(P120-A)	•	•	•	•	•	•
03030NV F	CR5D00L BXF72	12-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)	•	•	•	•	•	•
03031XP V	CR5D0L5 XFE76	5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E)	•	•	•	•	•	•
03032HG F	CR5D00 E1ND70	1-Port 100GBase-QSFP28 Flexible Card A(P120-A)	•	•	•	•	•	•
03054679	CR5DLP UFB070	Flexible Card Line Processing Unit(LPUF-120)	•	•	•	•	•	•
03054680	CR5DLP UFB07B	Flexible Card Line Processing Unit(LPUF-120) B	•	•	•	•	•	•
03054628	CR5DLP UFB07E	Flexible Card Line Processing Unit(LPUF-120) E	•	•	•	•	•	•
03032GK Y	CR5D00 E1NC77	1-Port 100GBase-CFP2 Flexible Card A(P120-A)	•	•	•	•	•	•
03032MV X	CR5DE2 VE1N70	2-Port 50GBase/1-Port 100GBase-QSFP28 FlexE Flexible Card (P120)	•	•	•	•	•	•

## LPUF-120 Series Compatible Optical/Electrical Modules

LPUF-120 Series Compatible Optical/Electrical Modules

BOM Number	Order Name	Board Name	Optical type supported
03030RXS	CR5D00P8UF70	8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120)	2.5Gbps eSFP optical module

BOM Number	Order Name	Board Name	Optical type supported
03030PME	CR5D0L2XFA71	2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A)	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
03030QDE	CR5D0L6XFA70	6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)	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
03030PYU	CR5D00E1NC75	1-Port 100GBase-CFP Flexible Card A(P120-A)	100Gbps CFP optical module
03030NVF	CR5D00LBXF72	12-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)	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

BOM Number	Order Name	Board Name	Optical type supported
03031LUU	CR5D00P2XX7 2	2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A)	10Gbps XFP optical module 10Gbps XFP CWDM optical module
03030PMK	CR5D0L5XFA7 2	5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A)	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
03030PMN	CR5D0EFGFA7 1	24-Port 100/1000Base-X-SFP Flexible Card A(P101-A)	155Mbps eSFP optical module 155Mbps eSFP BIDI optical module 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
03031XQD	CR5D0L2XFE7 5	2-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P52-E)	10Gbps SFP+ optical module 10Gbps SFP+ CWDM optical module 10Gbps SFP+ BIDI optical module 10Gbps SFP+ DWDM optical module
03031XQJ	CR5D0EFGFE7 1	24-Port 1000Base-X-SFP Flexible Card E(P52-E)	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
03031XPV	CR5D0L5XFE7 6	5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E)	10Gbps SFP+ optical module 10Gbps SFP+ CWDM optical module 10Gbps SFP+ BIDI optical module 10Gbps SFP+ DWDM optical

BOM Number	Order Name	Board Name	Optical type supported
			module
03032GKY	CR5D00E1NC77	1-Port 100GBase-CFP2 Flexible Card A(P120-A)	<p>100Gbps CFP2 optical module</p> <p><b>NOTE</b> When optical modules with the BOM number 02311LYG are used, 2x40G and 10x10G breakout optical fibers are not supported.</p>
03032MVX	CR5DE2VE1N70	2-Port 50GBase/1-Port 100GBase-QSFP28 FlexE Flexible Card (P120)	<p>50Gbps QSFP28 optical module</p> <p>50Gbps QSFP28 BIDI optical module</p> <p>100Gbps QSFP28 optical module</p> <p><b>NOTE</b> In 100GE mode, FEC is not supported. When the 02312AUE optical module is used, only the 30km transmission distance is supported. In addition, the 0.1km multi-mode optical module is not supported.</p>
03032HGF	CR5D00E1ND70	1-Port 100GBase-QSFP28 Flexible Card A(P120-A)	<p>100Gbps QSFP28 optical module</p> <p>40Gbps QSFP+ optical module</p>
03030PMQ	CR5D00E1MC70	1-Port 40GBase LAN-CFP Flexible Card A(P101-A)	40Gbps CFP optical module
03032KGQ	CR5D0L6XFE70	6-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E)	<p>10Gbps SFP+ optical module</p> <p>10Gbps SFP+ CWDM optical module</p> <p>10Gbps SFP+ BIDI optical module</p> <p>10Gbps SFP+ DWDM optical module</p>

## Flexible Card Line Processing Unit(LPUF-120) Specifications

Flexible Card Line Processing Unit(LPUF-120) Specifications

Item	Description
Order Name	CR5DLPUB070
Silkscreen	LPUF-120
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	7.2 kg (15.88 lb)
Typical power consumption	150.2 W
Typical heat dissipation	487.3 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)

Item	Description
Reliability and availability	Hot swappable.

## Flexible Card Line Processing Unit(LPUF-120) B Specifications

Flexible Card Line Processing Unit(LPUF-120) B Specifications

Item	Description
Order Name	CR5DLPUB07B
Silkscreen	LPUF-120-B
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	7.2 kg (15.88 lb)
Typical power consumption	150.2 W
Typical heat dissipation	487.3 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)
Reliability and availability	Hot swappable.

## Flexible Card Line Processing Unit(LPUF-120) E Specifications

Flexible Card Line Processing Unit(LPUF-120) E Specifications

Item	Description
Order Name	CR5DLPUE07E
Silkscreen	LPUF-120-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	7.2 kg (15.88 lb)
Typical power consumption	150.2 W
Typical heat dissipation	487.3 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)
Reliability and availability	Hot swappable.

## 6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A) Specifications

6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A) Specifications

Item	Description
Order Name	CR5D0L6XFA70
Silkscreen	P101-6x10GBase LAN/WAN-SFP+ -A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.7 kg (1.54 lb)
Typical power consumption	34.0 W
Typical heat dissipation	110.3 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.

## 1-Port 100GBase-CFP Flexible Card A(P120-A) Specifications

1-Port 100GBase-CFP Flexible Card A(P120-A) Specifications

Item	Description
Order Name	CR5D00E1NC75
Silkscreen	P120-1x100GBase LAN-CFP-A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.3 kg (2.87 lb)
Typical power consumption	51.0 W
Typical heat dissipation	165.5 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 Flexible Card A(P120-A) Specifications

1-Port 100GBase-CFP2 Flexible Card A(P120-A) Specifications

Item	Description
Order Name	CR5D00E1NC77
Silkscreen	P120-1x100GBase-CFP2-A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	40.0 W
Typical heat dissipation	129.7 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 Flexible Card A(P120-A) Specifications

1-Port 100GBase-QSFP28 Flexible Card A(P120-A) Specifications

Item	Description
Order Name	CR5D00E1ND70
Silkscreen	P120-1x100GBase-QSFP28-A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	34.0 W
Typical heat dissipation	110.3 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	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+ Flexible Card A(P120-A) Specifications

12-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A) Specifications

Item	Description
Order Name	CR5D00LBXF72
Silkscreen	P120-12x10GBase LAN/WAN-SFP+ -A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	52.0 W
Typical heat dissipation	168.7 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.

## 24-Port 100/1000Base-X-SFP Flexible Card A(P101-A) Specifications

24-Port 100/1000Base-X-SFP Flexible Card A(P101-A) Specifications

Item	Description
Order Name	CR5D0EFGFA71
Silkscreen	P101-24xFE/GE-SFP-A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.0 kg (2.21 lb)
Typical power consumption	37.0 W
Typical heat dissipation	120.0 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.

## 24-Port 1000Base-X-SFP Flexible Card E(P52-E) Specifications

24-Port 1000Base-X-SFP Flexible Card E(P52-E) Specifications

Item	Description
Order Name	CR5D0EFGFE71
Silkscreen	P52-24xGE-SFP-E
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.2 kg (2.65 lb)
Typical power consumption	77.1 W
Typical heat dissipation	250.2 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	SFP
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

## 5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A) Specifications

5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A) Specifications

Item	Description
Order Name	CR5D0L5XFA72
Silkscreen	P101-5x10GBase LAN/WAN-SFP+ -A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.9 kg (1.98 lb)
Typical power consumption	29.0 W
Typical heat dissipation	94.1 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/SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

# 5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E) Specifications

5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E) Specifications

Item	Description
Order Name	CR5D0L5XFE76
Silkscreen	P120-5x10GBase LAN/WAN-SFP+ -E
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.0 kg (2.21 lb)
Typical power consumption	65.0 W
Typical heat dissipation	210.9 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.

# 1-Port 40GBase LAN-CFP Flexible Card A(P101-A) Specifications

1-Port 40GBase LAN-CFP Flexible Card A(P101-A) Specifications

Item	Description
Order Name	CR5D00E1MC70
Silkscreen	P101-1x40GBase LAN-CFP-A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.2 kg (2.65 lb)
Typical power consumption	28.0 W
Typical heat dissipation	90.8 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

## 8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120) Specifications

8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120) Specifications

Item	Description
Order Name	CR5D00P8UF70
Silkscreen	P120-8xOC48c/STM16c POS-SFP
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.9 kg (1.98 lb)
Typical power consumption	33.4 W
Typical heat dissipation	108.4 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	SFP
Working mode	Full-duplex
Frame format	PPP and HDLC
Reliability and availability	Hot swappable.

## 2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A) Specifications

2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A) Specifications

Item	Description
Order Name	CR5D00P2XX72
Silkscreen	P51-2xOC192c/STM64c POS-XFP
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.5 kg (1.10 lb)
Typical power consumption	24.7 W
Typical heat dissipation	80.1 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	XFP
Working mode	Full-duplex
Frame format	PPP and HDLC
Reliability and availability	Hot swappable

## 20-Port 10/100/1000Base-RJ45 Flexible Card A(P51-A) Specifications

20-Port 10/100/1000Base-RJ45 Flexible Card A(P51-A) Specifications

Item	Description
Order Name	CR5D0EEGEA70
Silkscreen	P51-20x10/100/1000 Base-RJ45
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.7 kg (1.54 lb)
Typical power consumption	31.0 W
Typical heat dissipation	100.6 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	RJ45
Working mode	10M/100M/1000M auto-sensing, supports the full-duplex mode.
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

## 6-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E) Specifications

6-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P120-E) Specifications

Item	Description
Order Name	CR5D0L6XFE70
Silkscreen	P120-6x10GBase LAN/WAN-SFP+ -E
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.0 kg (2.21 lb)
Typical power consumption	67.0 W
Typical heat dissipation	217.2 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	SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

## 2-Port 50GBase/1-Port 100GBase-QSFP28 FlexE Flexible Card (P120) Specifications

2-Port 50GBase/1-Port 100GBase-QSFP28 FlexE Flexible Card (P120) Specifications

Item	Description
Order Name	CR5DE2VE1N70
Silkscreen	P120-2x50GBase-QSFP28
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.8 kg (1.76 lb)
Typical power consumption	69.0 W
Typical heat dissipation	223.9 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	Hot swappable.

## 2-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P52-E) Specifications

2-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P52-E) Specifications

Item	Description
Order Name	CR5D0L2XFE75
Silkscreen	P52-2x10GBase LAN/WAN-SFP+ -E
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	1.0 kg (2.21 lb)
Typical power consumption	59.0 W
Typical heat dissipation	191.4 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	SFP+
Working mode	Full-duplex
Frame format	Ethernet_II, Ethernet_SAP and Ethernet_SNAP
Reliability and availability	Hot swappable.

# 2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A) Specifications

## 2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A) Specifications

Item	Description
Order Name	CR5D0L2XFA71
Silkscreen	P51-2x10GBase LAN/WAN-SFP+ -A
Dimensions (H x W x D)	37.2 mm x 178.7 mm x 193.3 mm (1.46 in. x 7.04 in. x 7.61 in.)
Weight	0.9 kg (1.98 lb)
Typical power consumption	25.0 W
Typical heat dissipation	81.1 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/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

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