

# NE40E Series Universal Service Routers



## Product Overview

Huawei® NetEngine40E Universal Service Router (NE40E) Series routers are high-end network products developed by Huawei. The NE40E Series routers are usually deployed at core nodes on enterprise wide area networks (WANs), access nodes on large-scale enterprise networks, interconnection and aggregation nodes on campus networks, and edge nodes on large-scale Internet Data Center (IDC) networks. The NE20E, NE40E, and NE5000E can work together to provide a complete hierarchical IP network solution.

The NE40E Series includes the NE40E-X3, NE40E-X8, NE40E-X16, NE40E-X3A, NE40E-X8A and NE40E-X16A, as shown in Figure 1.

Figure 1 Huawei NE40E Series routers (Front)

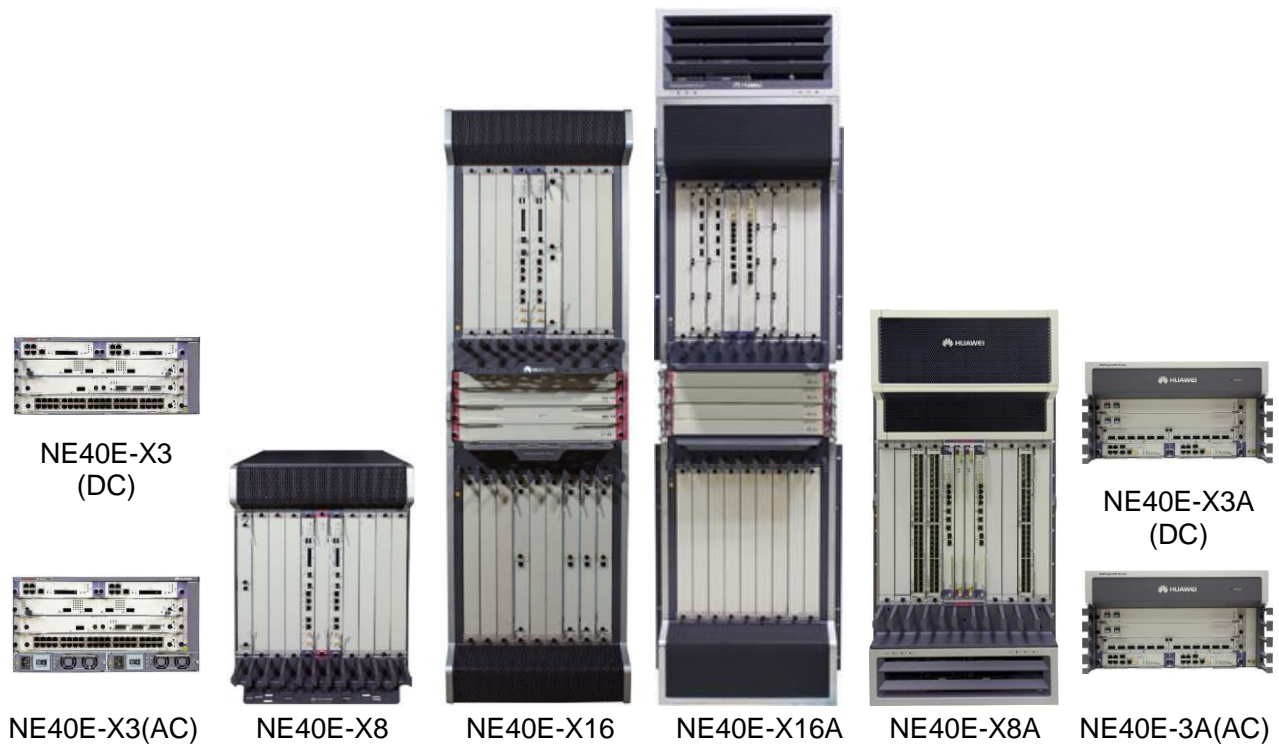
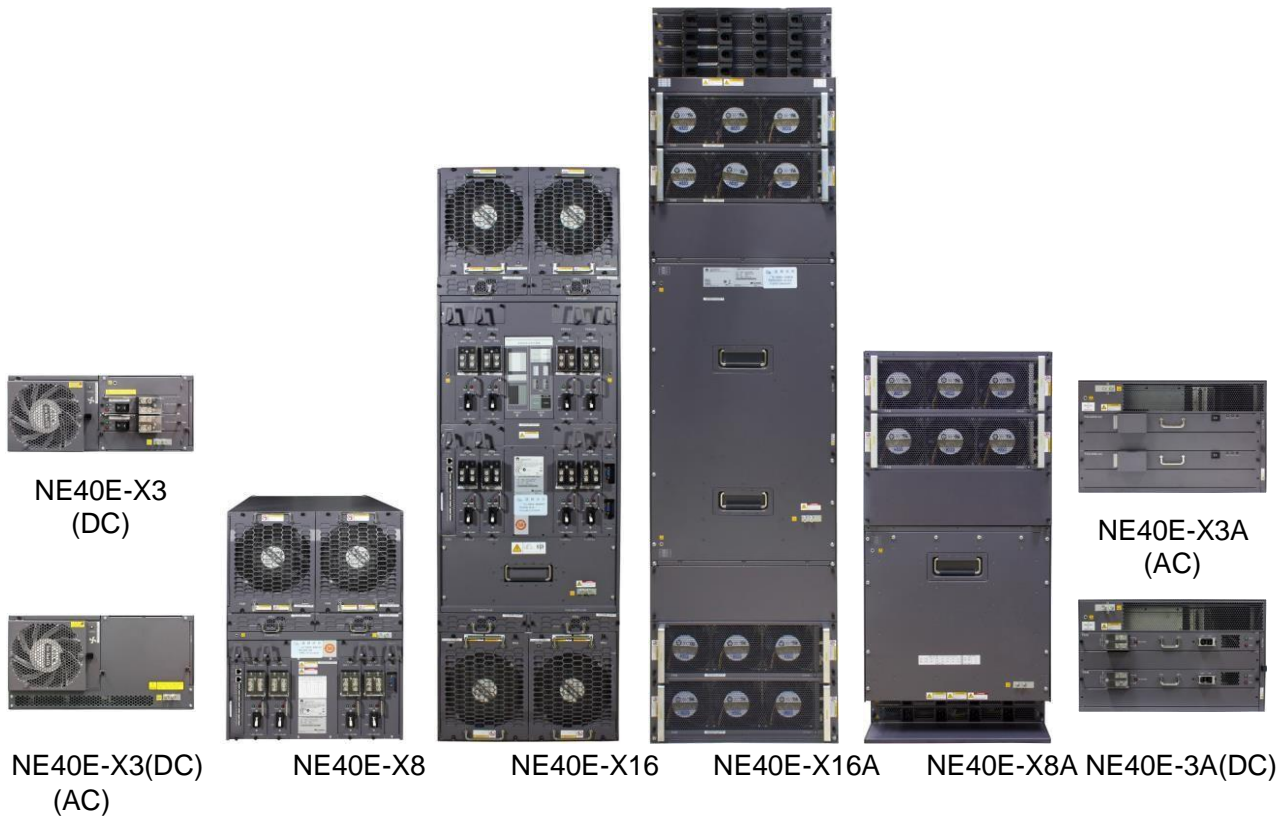


Figure 2 Huawei NE40E Series routers (Back)



The NE40E Series routers run on the Versatile Routing Platform (VRP ®) operating system and use Huawei-developed NP chips and hardware-based forwarding and non-blocking switching technologies. Based on distributed hardware forwarding, non-blocking switching technologies, distributed Clos architecture, and industry-leading 2T bps platform, the NE40E Series routers have the following features:


- Support for 1T routing line cards in each slot, with excellent compatibility with currently used line cards to protect carriers' investments to the largest extent.
- Line speed forwarding capabilities, industry-leading reliability, excellent scalability, a well-designed quality of service (QoS) mechanism, and strong service processing capabilities.
- Powerful service access and aggregation capabilities and various features, such as Layer 2 virtual private network (L2VPN), L3VPN, multicast, multicast VPN (MVPN), and Multiprotocol Label Switching - Traffic Engineering (MPLS-TE).
- Various service features, such as IP Security (IPSec), Network Address Translation (NAT), PAT and NetStream.
- Support for IPv6 and smooth transition from IPv4 to IPv6.
- NE Router supports booting from remote Network node and Timely base devices upgrade to new features or optimize features, upgrading the system software or patch to the latest version.
- Supported Online insertion/Removal of LPU`s/MFU`s/SFU`s and Hot swappable of Power and Fan modules

The NE40E can be flexibly deployed at the edge or core of IP or MPLS networks, simplifying network structure. With its ability to provide an extensive range of services and reliable service quality, the NE40E is driving IP and MPLS bearer networks to develop greater broadband capacity and to become more secure, more intelligent, and more service-oriented.

## Product Features

Table 1 lists the features of the Huawei NE40E Series Routers.

**Table 1.** Features of Huawei NE40E Series Routers

Features	Description
<b>Powerful Service Support</b>	
Comprehensive access and aggregation capabilities	<p>The NE40E supports various interface types (E1, POS, CPOS, ATM, FE, GE, 10GE, 40GE, and 100GE) and high-density fixed ports to provide access and aggregation WAN services as well as Ethernet multi-service transmission platform (MSTP) aggregation services, satisfying various service requirements.</p> <p> <b>NOTE</b> ATM physical interface is supported in V600R008 and not supported in V800R008.</p>
<b>Powerful routing capabilities</b>	<p>The NE40E supports various routing protocols, such as Routing Information Protocol (RIP), Open Shortest Path First (OSPF), Intermediate System-to-Intermediate System (IS-IS), Border Gateway Protocol version 4 (BGP4), and multicast routing protocols. The NE supports route redistribution. The NE40E supports plaintext and ciphertext authentication as well as fast convergence. These features ensure network stability and security in complex routing environments.</p>
Strong service bearer capabilities	<p>The NE40E can have L2VPN, L3VPN, and MVPN deployed at the same time, as networks require. The NE40E supports various interface types (IMA E1, TDM, POS, Ethernet, etc.). The NE40E also supports TE, selective 802.1Q-in-802.1Q (QinQ), Dynamic Host Configuration Protocol (DHCP)/IP over Ethernet (IPoE), IPSec,NAT, PAT,GRE, BRAS broadband service access, and 1588v2, meeting the integrated service bearer requirement. In addition, the NE40E provides the NetStream function to meet conventional access requirements and new service requirements.</p>
Powerful and expandable multicast capabilities	<p>The NE40E supports IPv4/IPv6 multicast protocols, such as Multicast Open shortest Path First, Protocol Independent Multicast - Sparse Mode (PIM-SM), PIM - Source Specific Multicast (PIM-SSM), Multicast Listener Discovery Version 1 (MLDv1), MLDv2, Internet Group Membership Protocol Version 3 (IGMPv3), and IGMP snooping, PPP, Multi-link PPP, HDLC. The NE40E has the flexibility to carry video services, such as Internet Protocol Television (IPTV), and satisfy multicast service requirements on networks of any scale.</p>
Future-Oriented IPv6-Compatible Solutions	<p>The NE40E supports a variety of IPv6 features, such as IPv6 leased line, dual stack, tunneling, etc. The NE40E supports Next Hop Separation to optimize the IPv6 convergence time and larger IPv6 FIB to improve the scalability. All of them help to provide comprehensive solutions based on the high performance for transition from IPv6 to IPv4. And owing to the variety of technologies and different situations of provider networks, each provider will certainly select a conservative, reposeful, or aggressive transition technology that is the most suitable for its own network.</p>

High Availability	
Equipment-level reliability	The NE40E provides redundancy backup for key components. These key components support hot swap and hot backup. The NE40E also uses technologies, such as Non-Stop Routing (NSR), Non-Stop Forwarding (NSF), and In-Service Software Upgrade (ISSU), to ensure uninterrupted service forwarding.
Network-level reliability	The NE40E uses the following technologies to provide network-level reliability: IP fast reroute (FRR), Label Distribution Protocol (LDP) FRR, TE FRR, VPN FRR, hot standby, fast convergence of Interior Gateway Protocols (IGP), BGP, and multicast routes, Virtual Router Redundancy Protocol (VRRP), Rapid Ring Protection Protocol (RRPP), trunk load balancing and backup, hardware-based Bidirectional Forwarding Detection (BFD) of 3.3 ms, MPLS OAM, and Ethernet OAM. The NE40E provides an end-to-end protection switching speed of 200 ms with no service interruption.
Service-level reliability	The NE40E uses the following technologies to provide service-level reliability for L2VPNs and L3VPNs: VPN FRR, E-VRRP, VLL FRR, GRE and IPsec 3DES/AES VPN, Ethernet OAM, PW redundancy, E-trunk and E-APS. These technologies ensure stable and reliable service operation with no service interruption.
System Management	<p>Console port: RJ45 connector connected to the console interface on the MPU VS:</p> <p>Virtual Systems</p> <p>In-band and out-band management</p> <p>Information Management</p> <p>Fault Management</p> <p>Performance Management</p> <p>Upgrade Maintenance</p> <p>CLI Based configuration</p> <p>GUI/WEB Based configuration</p> <p>SNMP V1, V2c, V3</p> <p>SSH</p> <p>Telnet</p> <p>FTP</p> <p>TFTP</p> <p>NETCONF</p> <p>DCN</p> <p>LAD</p> <p>LLDP</p> <p>Physical Layer 1588 ACR Clock Synchronization</p> <p>CES ACR Clock Synchronization</p> <p>1588v2 G.8275.1</p> <p>1588 ATR</p> <p>ATom GPS Timing</p> <p>Atom GNSS Timing</p> <p>NTP</p> <p>OPS</p>

	<p>CUSP</p> <p>RMON:Remote Network Monitoring (RMON) is a standard monitoring specification defined by the IETF</p> <p>SAID</p> <p>KPI</p> <p>PADS</p> <p>System log</p>
Debug and Maintenance	<p>Trace-route, Ping, extended PING</p> <p>Display interface shows state,protocol current state, Overrun packets, InRangeLength,LongPacket,Error packets</p> <p>Display: IPv4 and IPv6 routes,OSPFv2/v3,ISISv4/v6,BGP,Multicast,Static/Dynamic ARP tabel.</p> <p>Terminal debug, Protocol debug, Terminal monitor, Terminal Log, Event Log, History Log</p> <p>LOGS:Error Logs for device, MPU, LPU, SFU, Interface ,Device Health, Memory, CPU</p>

Features	Description
High Security	
Device security	<p>The NE40E supports multiple security mechanisms to ensure that the packets sent for central processing (CP) conform to the configured specifications. The NE40E can filter the spoofing and malformed packets sent for CP through unicast reverse path forwarding (URPF) on an interface and TCP/IP attack defense, discard packets with invalid TTLs through Generalized TTL Security Mechanism (GTSM) detection of TTLs of packets sent for CP, classify packets sent for CP according to protocol granularities and restrict the bandwidth, protect management interfaces and service interfaces through management plane protection.</p> <p>The NE40E also supports Management Plane Access Control (MPAC) function to protect devices from attacks. MPAC enables devices to filter packets destined for the CPU based on rules specified in an MPAC policy and discard unnecessary packets, which helps prevent attacks to the CPU.</p>

Service security	<p>The NE40E supports IPsec tunnel to provide high quality, interoperable and cryptology-based security for IP protocol packets.</p> <p>The NE40E supports Unicast Reverse Path Forwarding (URPF) to defend a network against attacks that are based on source address spoofing.</p> <p>The NE40E supports Layer 2 loop detection, which is a security mechanism used to detect loops on a Layer 2 Ethernet network.</p> <p><b>ACL</b></p> <p><b>NMS:SNMP Access using ACL</b></p> <p>AAA,RADIUS,TACACS</p> <p><b>The user privilege level command configures the command level of a user interface.</b></p> <p>Password authentication protocol (PAP) and challenge handshake authentication protocol (CHAP)</p> <p>The NE40E supports Keychain to provide authentication functionality to the applications such as Routing Protocol Application (RPA), Transmission Control Protocol (TCP), and signaling protocols (such as LDP). It also provides dynamic change of authentication keys to all required applications. Keychain supports <b>Message Digest 5 (MD5)</b>, Secure Hash Algorithm-1 (SHA-1)-12, Hash Message Authentication Code for Message Digest 5 (HMAC-MD5), HMAC-SHA1-12, HMAC-SHA1-20, SHA2-256, and HMAC-HA2-256 as authentication algorithms.</p>
Flexible VS technologies	<p>The NE40E supports flexible virtual system (VS) technologies. A physical router can be divided into multiple logical routers between which resources are separated. Services can be deployed on different VSs to form a multi-service network with service separation. The use of VSs enhances security and reliability.</p>
QoS	
Well-designed QoS mechanism	<p>The NE40E provides high-quality QoS. With an advanced queue scheduling algorithm and congestion control algorithm, the NE40E can carry out accurate multi-level scheduling for data flows. This meets the quality requirements of different users and different levels of services.</p> <p>The well-designed traffic scheduling mechanism of the NE40E provides the following functions to ensure QoS: <b>ToS, CoS, Queuing, prioritizing, Committed Access Rate/ Rate limiting, IP Precedence, PBR, Congestion avoidance algorithm, WRED, Priority queuing, WFQ.</b></p> <p>Five-level HQoS scheduling for the access side to satisfy the service requirements of access users at different levels in a differentiated and diversified manner.</p> <p>MPLS HQoS for the network side to provide QoS for MPLS VPN, VLL, and PWE3 <b>TE-based MPLS DS-TE to combine the use of MPLS TE and the DiffServ model.</b></p> <p>DS-TE supports Eight class types (CTs) and two bandwidth constraint models: maximum allocation model (MAM) and russian dolls model (RDM).</p> <p>Random Early Detection, <b>Weighted Fair Queuing</b></p>
Flexible and Scalable, Investment Protection	



Industry-leading 2T platform	Based on the industry-leading 2T platform, each slot of the NE40E supports a maximum of 2 Tbit/s bandwidth to achieve large-capacity service bearer, meeting future bandwidth increase requirements. Based on the existing VRP operating system, the NE40E is compatible with line cards currently in use, protecting carriers' investments to the largest extent. With high port density and compact design, the NE40E significantly reduces the required installation space.
Commercial-ready SDN capabilities	<p>With the innovative SDN architecture, the NE40E helps resolve various problems on conventional networks, such as load imbalance, low bandwidth usage, and low network convergence efficiency caused by repeated network topology calculation in the case of a fault.</p> <p>The SDN-based AtomEngine developed by Huawei supports OAM technologies, such as RFC 2544, IP FPM, Two-Way Active Measurement Protocol (TWAMP), and Y.1731, implementing real-time service measurement and fast fault locating. The AtomEngine uses Huawei-developed chips. It is the smallest router in the industry. It supports plug-and-play and can be inserted into any network node of any vendor. Currently, Huawei has provided multiple SDN solutions, such as PCE+, IP+optical, etc.</p>
Flexible VS technologies	The NE40E supports flexible virtual system (VS) technologies. A physical router can be divided into multiple logical routers between which resources are separated. Services can be deployed on different VSs to form a multi-service network with service separation. The use of VSs enhances security and reliability.
Control- and forwarding-plane separation	The NE40E adopts a centralized routing engine and a distributed forwarding architecture, which helps to provide rich and flexible service and to perform large-capacity forwarding. In addition, the NE40E has a monitoring plane, which helps ensure stable addressing and forwarding performance. The data plane, control plane, and monitoring plane are separated and you can upgrade each plane separately.
Huawei-developed chips, service on demand	The NE40E uses in-built Huawei-developed NP chips that allow the NE40E to have a flexible programmable architecture. Microcode programming can be used for new service deployment, without the need to replace hardware, which saves investments. In addition, this architecture drastically shortens the technological innovation cycle and accelerates new service launch speed, helping customers build flexible and scalable networks.
OAM	
OAM The NE40E supports IP measures IP service packets accurate measurements. It	<p>FPM developed by Huawei to measure IP network performance. IP FPM directly and monitors service changes online for fast fault locating. IP FPM provides highly- can be flexibly deployed and has no impact on services.</p> <p>The NE40E supports RFC 2544, Two-Way Active Measurement Protocol (TWAMP), and Y.1731, implementing real-time service measurement and fast fault locating.</p>
Energy Saving Design	

Regulation Compliance	<p>The NE40E complies with the following energy conservation and emission reduction regulations:</p> <ul style="list-style-type: none"> <li>• Directive 2002/95/EC on the Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).</li> <li>• Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).</li> <li>• Directive 2002/96/EC on waste electrical and electronic equipment (WEEE).</li> <li>• ATIS-0600015.03.2009 Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting for Router and Ethernet Switch Products.</li> <li>• Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products (recast).</li> </ul>
Dynamic energy-saving design	<p>The NE40E uses Huawei-developed NP chips and 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 NE40E also supports 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.</p>

## Product Specifications

Table 2 lists the specifications of Huawei NE40E Series Routers.

**Table 2. Specifications of Huawei NE40E Series Routers**

Item	NE40E-X3	NE40E-X3A	NE40E-X8	NE40E-X8A	NE40-X16	NE40-X16A
Switching capacity	1.08 Tbps	2.79 Tbps	7.08 Tbps	25.16Tbps	12.58Tbps	50.32Tbps
Forwarding performance	540 Mpps	900Mpps	2880 Mpps	5760Mpps	5760 Mpps	11520Mpps
Number of slots supported	5	5	11	12	22	22
MPU support	1:1	1:1	1:1	1:1	1:1	1:1
SFU support	NA	NA	2+1 backup	3+1 backup	3+1 backup	3+1 backup
Number of interface board slots supported	3	3	8	8	16	16



MTBF (year)	27.44	22.85	21.91	22.32	21.66	22.33
MTTR (hour)	0.5	0.5	0.5	0.5	0.5	0.5
System reliability	0.99999792	0.999997502	0.999997395	0.999997443	0.999997365	0.999997444 4
Physical dimensions (Note 1)	<ul style="list-style-type: none"> <li>• DC (4U)</li> <li>Height: 175mm</li> <li>Width: 442mm</li> <li>Depth: 650mm</li> <li>• AC (5U)</li> <li>Height: 220mm</li> <li>Width: 442mm</li> <li>Depth: 650mm</li> </ul>	Height: 264mm (6U) Width: 442mm Depth: 664mm	Height: 620mm (14U) Width: 442mm Depth: 650mm	Height: 930mm (21U) Width: 442mm Depth: 650mm	Height: 1420mm(32U ) Width: 442mm Depth: 650mm	Height: 1778mm (40U) Width: 442mm Depth: 650mm
Weight (in empty configuration)	12kg (DC) 20kg (AC)	26 kg (DC) 26 kg (AC)	25.8 kg	68.1 kg (DC) 63.7 kg (AC)	69.6 kg	120.5 kg (DC) 111.7 kg (AC)
Weight (in full configuration)	42 kg (DC)(120G) 52 kg (AC)(120G)	72.1 kg (DC)(200G) 74.7 kg (AC)(200G)	136 kg (240G)	186.1 kg (DC)(480G) 184.3 kg (AC)(480G)	279 kg (240G)	356 kg (DC)(480G) 350.7 kg (AC)(480G)
Redundant power supply	1+1	1+1	2+2	N+1 (DC) N+N (AC) Up to 8 powers	4+4	N+1 (DC) N+N (AC) Up to 16 powers

Item	NE40E-X3	NE40E-X3A	NE40E-X8	NE40E-X8A	NE40-X16	NE40-X16A
------	----------	-----------	----------	-----------	----------	-----------

Power consumption (in full configuration)	1070 W (AC)(120G) 920 W (DC)(120G)	1180 W (AC)(200G) 1120 W (DC)(200G)	2340 W (120G) 3220 W (240G)	4770 W (480G)	6210 W (240G)	9040 W (480G)
Heat dissipation	3471.5 BTU/hour (AC)(120G) 2984.9 BTU/hour (DC)(120G)	3828.4 BTU/hour (AC)(200G) 3633.8 BTU/hour (DC)(200G)	7591.9 BTU/hour (120G) 10447.0 BTU/hour (120G)	15475.9 BTU/hour (480G)	20147.8 BTU/hour (240G)	29329.6 BTU/hour (480G)
Power input	AC: 180 to 264V (200 to 240V rated) DC: -38.4 to -72V (-48V/-60V rated)	AC: 180 to 264V (200 to 240V rated) DC: -40 to -72V (-48V/-60V rated)	AC: 180 to 264V (200 to 240V rated) DC: -38.4 to -72V (-48V/-60V rated)	AC: 180 to 264V (200 to 240V rated) DC: -40 to -72V (-48 to -60V rated)	AC: 180 to 264V (200 to 240V rated) DC: -38.4 to -72V (-48 to -60V rated)	AC: 180 to 264V (200 to 240V rated) DC: -40 to -72V (-48 to -60V rated)
Airflow	Left-to-back	Left-to-back	Front-to-back	Front-to-back	Front-to-back	Front-to-back
Rack Mountable Chassis	Yes	Yes	Yes	Yes	Yes	Yes
Operating temperature (nominal) (Note 2, Note 3, Note 4, Note 5)	0 to 45°C (32 to 113°F)					
Operating temperature (short-term) (Note 2, Note 3, Note 4, Note 5)	-5 to 55°C (23 to 131°F)					
Operating humidity (nominal) (relative humidity) (Note 2, Note 5)	5 to 85%, non-condensing					

Operating humidity (short-term) (relative humidity) (Note 2, Note 5)	5 to 95%, non-condensing
Storage temperature (Note 2, Note 3)	-40 to 70°C (-40 to 158°F)
Storage humidity (relative humidity) (Note 2)	5 to 95%, non-condensing
Long-term operating altitude	≤4000 m (13123.4 feet) (If the altitude is between 1800 meters and 4000 meters, the operating temperature of the device must decrease by 1°C for every 220 meters increase in altitude.)
Storage altitude	≤5000 m (16404 feet)

Regulatory compliance	<p><b>EMC</b></p> <ul style="list-style-type: none"><li>● CISPR 22 Class A</li><li>● EN 55022 Class A</li><li>● EN 55032 Class A</li><li>● AS/NZS CISPR22 Class A</li><li>● FCC Part 15 Subpart B Class A</li><li>● ICES 003 Class A</li><li>● VCCI Class A</li><li>● IEC 61000-6-4 Class A</li><li>● EN 61000-6-4 Class A</li><li>● IEC 61000-3-2</li><li>● EN 61000-3-2</li><li>● GB 17625.1</li><li>● IEC 61000-3-3</li><li>● EN 61000-3-3</li><li>● GB 17625.2</li><li>● CISPR24</li><li>● EN 55024</li><li>● ETSI EN 300 386</li><li>● ETSI ES 201 468</li><li>● EN 61000-6-2</li><li>● IEC 61000-6-2</li><li>● CE marking</li></ul> <p><b>Safety</b></p> <ul style="list-style-type: none"><li>● IEC 60950-1</li><li>● EN 60950-1</li><li>● UL 60950-1</li><li>● CSA C22.2 No 60950-1</li><li>● AS/NZS 60950.1</li><li>● IEC 60825-1</li><li>● IEC 60825-2</li><li>● EN 60825-1</li><li>● EN 60825-2</li><li>● 21 CFR 1040.10 and Laser Notice 50</li></ul> <p><b>Grounding</b></p> <ul style="list-style-type: none"><li>● ITU-T K.27</li><li>● ETSI EN 300 253</li></ul>
-----------------------	--

**NOTE**

EMC: electromagnetic compatibility  
 CISPR: International Special Committee on Radio Interference  
 EN: European Standard  
 ETSI: European Telecommunications Standards Institute  
 CFR: Code of Federal Regulations  
 FCC: Federal Communication Commission  
 IEC: International Electrotechnical Commission  
 AS/NZS: Australian/New Zealand Standard  
 VCCI: Voluntary Control Council for Interference  
 CNS: Chinese National Standard  
 UL: Underwriters Laboratories  
 CSA: Canadian Standards Association  
 BS: British Standard  
 IEEE: Institute of Electrical and Electronics Engineers  
 RoHS: restriction of the use of certain hazardous substances

**Performance Specifications:**

Performance Specification	NE40E-X16A	NE40E-X16	NE40E-X8A	NE40E-X8	NE40E-X3A	NE40E-X3
Number of RIP neighbours	512	512	512	512	512	512
Number of RIP routes	150K	150K	150K	150K	150K	150K
Number of RIP processes	1000	1000	1000	1000	1000	1000
Number of RIPng routes	120K	120K	120K	120K	120K	120K
Number of OSPF neighbours	1000	1000	1000	1000	1000	1000
Number of OSPF areas	50	50	50	50	50	50
OSPF node capacity	2000	2000	2000	2000	2000	2000
Number of OSPF routes	3M	3M	3M	3M	3M	3M
OSPFv3 node capacity	2000	2000	2000	2000	2000	2000
Number of OSPFv3 routes	3M	3M	3M	3M	3M	3M
Number of ISIS processes	500	500	500	500	500	500
ISIS node capacity	2000	2000	2000	2000	2000	2000
Number of BGP peers	16K	16K	16K	16K	4K	4K
Number of BGP routes	25M	25M	25M	25M	12.5M	12.5M
Number of BGPv6 routes	10M	10M	10M	10M	10M	10M
Number of static IPv4 routes	100K	100K	100K	100K	100K	100K

Number of static IPv6 routes	100K	100K	100K	100K	100K	100K
Number of IPv4 multicast routes	100K	100K	100K	100K	100K	100K
Number of IPv6 multicast routes	30K	30K	30K	30K	30K	30K
Number of static multicast routes	30K	30K	30K	30K	30K	30K

## Ordering Information

To place an order, visit the [UniSTAR SCT Workspace](#).

## Basic Hardware Configurations

**Table 3.** NE40E-X3 V600R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
02358577	CR5P03BASD73	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)	Basic configuration for DC.
02358578	CR5P03BASA73	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)	Basic configuration for AC.
02354367	CR5P03BASD71	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)	Basic configuration for DC.
02354368	CR5P03BASA71	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 AC Power,without Software Charge and Document)	Basic configuration for AC.
02355251	CR5P03BASA72	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)	Basic configuration for AC.

**Table 4.** NE40E-X3 V600R008 Basic Components

BOM Number	Order Name	Description	Remarks
02351596	CR52-BKPE-4U-DC	Integrated DC Chassis Components(NE40E-X3)-4U,Including Dual DC Power	Include: chassis, fan box and dual DC powers.

02351597	CR52-BKPE-5U-AC	Integrated AC Chassis Components(NE40E-X3)-5U,Including Dual AC Power	-
02355250	CR5B0BKP0370	NE40E-X3 Integrated AC Chassis Components, (Including Dual AC Power)	Include: chassis, fan box and dual AC powers.
03054206	CR5D0MPUD170	Main Processing Unit D2 (Including 2G Memory and 2G USB)	-
03055705	CR5D0MPUD270	Main Processing Unit D3(Including 4G Memory and 2G USB)	Recommended quantity: two for each chassis.
02120529	CR52-PEMA	48V DC Power Entry Module	Recommended quantity: two for each chassis.
02130865	CR52-PWRD-AC	AC/DC Rectifier,-10degC-55degC,90V-280V,48V/30A	Recommended quantity: two for each chassis.
02310MKG	CR5MPWRBX070	Box Module,AC power,548.9mm*217.6mm*41.2mm,sheet metal	To be used with the rectifier order named CR5MPWRAC070.
02310MDH	CF-2G	2G CF Module	To be purchased only when it is used as a spare part.
02120514	CR5M000FBX61	Fan Box	-

**Table 5.** NE40E-X3A V800R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
02350FWN	CR5P03BASD75	NE40E-X3A Basic Configuration (Including NE40E-X3A Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)	Basic configuration for DC.
02350FWP	CR5P03BASA75	NE40E-X3A Basic Configuration (Including NE40E-X3A Chassis,2 MPUs, 2 AC Power,without Software Charge and Document)	Basic configuration for AC.



**Table 6. NE40E-X3A V800R008 Basic Components**

BOM Number	Order Name	Description	Remarks
02350FMK	CR5B0BKP0373	NE40E-X3A Integrated DC Chassis Components, Including Dual DC Power	Include: chassis, fan box and dual DC power.
02350FML	CR5B0BKP0374	NE40E-X3A Integrated AC Chassis Components, Including Dual AC Power	Include: chassis, fan box and dual AC power.
03057248	CR5D0MPUD471	Main Processing Unit D4(16G Memory)	Recommended quantity: two for each chassis.
02121615	CR5B0PWRDC71	48V DC Power Entry Module	Recommended quantity: two for each chassis.
02310WTG	E008DDR10	8GB 240pin Memory Module	To be purchased only when it is used as a spare part.

**Table 7. NE40E-X8 V600R008 Basic Configuration Bundle**

BOM Number	Order Name	Description	Remarks
S4017407	CR5P08BASD73	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 100G SRU/SFU, 4 DC Power, without Software Charge and Document)	100G Bundle
S4017408	CR5P08BASA73	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 100G SRU/SFU, 4 AC Power, without Software Charge and Document)	100G Bundle
S4017147	CR5P08BASD71	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU, 4 DC Power, without Software Charge and Document)	200G Bundle
S4017148	CR5P08BASA71	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU, 4 AC Power, without Software Charge and Document)	200G Bundle

**Table 8. NE40E-X8 V600R008 Basic Components**

BOM Number	Order Name	Description	Remarks
02351930	CR5B0BKP0870	NE40E-X8 Integrated Chassis Components (Including 4 DC Power)	
03053549	CR5D0SRUA570	Switch and Route Processing Unit A5	200G MPU, 4G Memory
03054207	CR5D0SRUA770	Switch and Route Processing Unit A7	50G/100G MPU, 4G Memory
03053548	CR5DSFUIE07C	200Gbps Switch Fabric Unit C (SFUI-200-C)	-
03054230	CR5DSFUIA07D	100Gbps Switch Fabric Unit D (SFUI-100-D)	-

BOM Number	Order Name	Description	Remarks
S4017416	CR5P08SFUA71	NE40E-X8 100G SFU Bundle Configuration(Including 2*SRUs,1*SFU)	Upgraded from 40G to 100G Bundle
02120560	CR5M000PEM60	48V DC Power Entry Module	Required quantity: four for each chassis
02400376	CR5B0PWRBX60	Power Distribution Cabinet,220V,50/60HZ,72000mA,EPS200-4850 A	AC-to-DC power distribution cabinet. Required quantity: one for each chassis.
02130872	WPSU50A00	Power module--33degC-65degC-90VAC-290VAC-(-53. 5)VDC/54.2A-AC/DC rectifier	To be used with AC-to-DC power distribution cabinets. Required quantity: four for each chassis.
02316431	MEM-2G-240pin	2GB 240pin Memory Module	To be purchased only when it is used as a spare part.
02317806	CR5M000CMU60	Centralized Monitor Unit	To be purchased only when it is used as a spare part.
02120562	CR5M000FBX60	Fan Box	To be purchased only when it is used as a spare part.

Table 9. NE40E-X8 V800R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
02350REH	CR5P08BASD79	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU, 4 DC Power, without Software Charge and Document)	-
02350REJ	CR5P08BASA75	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 AC Power, without Software Charge and Document)	-
02351AFJ	CR5P08BASA7H	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 AC Power(Power Cords Cable), without Software Charge and Document)	16G Memory

**Table 10. NE40E-X8 V800R008 Basic Components**

BOM Number	Order Name	Description	Remarks
02351930	CR5B0BKP0870	NE40E-X8 Integrated Chassis Components (Including 4 DC Power)	-
03057054	CR5D0SRUB570	Switch and Route Processing Unit B5	200G MPU, 16G Memory
03053548	CR5DSFUIE07C	200Gbps Switch Fabric Unit C (SFUI-200-C)	-
02120560	CR5M000PEM60	48V DC Power Entry Module	Required quantity: eight for each chassis
02400376	CR5B0PWRBX60	Power Distribution Cabinet,220V,50/60HZ,72000mA,EPS200-4850 A	AC-to-DC power distribution cabinet. Required quantity: two for each chassis.
02310FJD	R4850G	Rectifier Module, R4850, 2U, 3000W, High Efficiency	-
02400739	CR5B0PWRBX62	Embedded Power, EPS200, 220Vac Single-Phase, 200A, Back Cabling, Width 19inch, Height 2U	-
02310MDH	CF-2G	2G CF Module	-
02316431	MEM-2G-240pin	2GB 240pin Memory Module	-
02317806	CR5M000CMU60	Centralized Monitor Unit	-
02120562	CR5M000FBX60	Fan Box	To be purchased only when it is used as a spare part.

**Table 11. NE40E-X8A V800R008 Basic Configuration Bundle**

BOM Number	Order Name	Description	Remarks
02350AUE	CR5P08BASD76	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(480G),4 DC Power,2 Fan Tray, without Software Charge and Document)	Basic configuration for 480G with DC
02350AUF	CR5P08BASA76	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(480G),6 AC Power,2 Fan Tray,without Software Charge and Document)	Basic configuration for 480G with AC

02350AUG	CR5P08BASD77	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(1T),6 DC Power,3 Fan Tray,without Software Charge and Document)	Basic configuration for 1T with DC
02350AUH	CR5P08BASA77	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(1T),8 AC Power,3 Fan Tray,without Software Charge and Document)	Basic configuration for 1T with AC

**Table 12. NE40E-X8A V800R008 Basic Components**

BOM Number	Order Name	Description	Remarks
02350AFW	CR5B0BKP0871	NE40E-X8A Integrated Chassis DC Components (Including 2 Fan Tray)	Includes: chassis and fan box. Not includes: DC power.
02350AFX	CR5B0BKP0872	NE40E-X8A Integrated Chassis AC Components (Including 2 Fan Tray)	Includes: chassis and fan box. Not includes: AC power.
03057257	CR5D0SRUA871	Switch and Route Processing Unit A8(16G Memory)	480G main control board, which cannot be used with any 1T main control board or SFU. Recommended quantity: two for each chassis.
03057261	CR5D0SRUA971	Switch and Route Processing Unit A9(16G Memory)	1T main control board, which cannot be used with any 480G main control board or SFU. Recommended quantity: two for each chassis.
03056095	CR5DSFUIM07C	480Gbps Switch Fabric Unit C (SFUI-480-C)	To be configured as needed.
03056094	CR5DSFUIU07C	1Tbps Switch Fabric Unit C(SFUI-1T-C)	To be purchased only when it is used as a spare part.
02311CNP	PDC-2200WB	PSU-PDC-2200WB-PM2200W DC Power Supply	To be configured as needed.
02310VMA	PHD-3000WA	3000W AC Power Module	To be configured as needed.

02310WTG	E008DDR10	8GB 240pin Memory Module	To be purchased only when it is used as a spare part.
02120866	CR5M000FBX61	Fan Box	To be purchased only when it is used as a spare part.

**Table 13.** NE40E-X16 V600R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
S4017144	CR5P16BASD71	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)	
S4017145	CR5P16BASA71	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)	

**Table 14.** NE40E-X16 V600R008 Basic Components

BOM Number	Order Name	Description	Remarks
02351931	CR5B0BKP1670	NE40E-X16 Integrated Chassis Components (Including 8 DC Power)	Includes: chassis and fan box. Not includes: DC power.
03030JTW	CR5D0MPUB460	Main Processing Unit B4	-
S4017146	CR5P16SFUE70	NE40E-X16 200G SFU Bundle Configuration(Including 4*SFUs)	-
03053547	CR5DSFUIE07B	200Gbps Switch Fabric Unit B (SFUI-200-B)	-
02120560	CR5M000PEM60	48V DC Power Entry Module	Required quantity: eight for each chassis
02400376	CR5B0PWRBX60	Power Distribution Cabinet,220V,50/60HZ,72000mA,EPS200-4850 A	AC-to-DC power distribution cabinet. Required quantity: two for each chassis.

02130872	WPSU50A00	Power module--33degC-65degC-90VAC-290VAC-(-53. 5)VDC/54.2A-AC/DC rectifier	To be used with AC-to-DC power distribution cabinets. Required quantity: eight for each chassis.
02310MDH	CF-2G	2G CF Module	To be purchased only when it is used as a spare part.
02316431	MEM-2G-240pin	2GB 240pin Memory Module	To be purchased only when it is used as a spare part.
02317806	CR5M000CMU60	Centralized Monitor Unit	To be purchased only when it is used as a spare part.
02120562	CR5M000FBX60	Fan Box	To be purchased only when it is used as a spare part.

**Table 15.** NE40E-X16 V800R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
02359180	CR5P16BASD74	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)	Basic configuration for 200G with DC.
02359181	CR5P16BASA74	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)	Basic configuration for 200G with AC.
02351AFK	CR5P16BASA7H	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power(Power Cords Cable), without Software Charge and Document)	16G Memory

**Table 16.** NE40E-X16 V800R008 Basic Components

BOM Number	Order Name	Description	Remarks
02351931	CR5B0BKP1670	NE40E-X16 Integrated Chassis Components (Including 8 DC Power)	Includes: chassis and fan box. Not includes: DC power.
03057244	CR5D0MPUB571	Main Processing Unit B5(16G Memory)	-
03053547	CR5DSFUIE07B	200Gbps Switch Fabric Unit B (SFUI-200-B)	-



02120560	CR5M000PEM60	48V DC Power Entry Module	Required quantity: eight for each chassis
02400376	CR5B0PWRBX60	Power Distribution Cabinet,220V,50/60HZ,72000mA,EPS200-4850 A	AC-to-DC power distribution cabinet. Required quantity: two for each chassis.
02310FJD	R4850G	Rectifier Module, R4850, 2U, 3000W, High Efficiency	-
02400739	CR5B0PWRBX62	Embedded Power, EPS200, 220Vac Single-Phase, 200A, Back Cabling, Width 19inch, Height 2U	-
02310MDH	CF-2G	2G CF Module	-
02316431	MEM-2G-240pin	2GB 240pin Memory Module	-
02310WTG	E008DDR10	8GB 240pin Memory Module	To be purchased only when it is used as a spare part.
02317806	CR5M000CMU60	Centralized Monitor Unit	-
02120562	CR5M000FBX60	Fan Box	To be purchased only when it is used as a spare part.

**Table 17.** NE40E-X16A V800R008 Basic Configuration Bundle

BOM Number	Order Name	Description	Remarks
02350AQQ	CR5P16BASD76	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(480G),7 DC Power,4 Fan Tray, without Software Charge and Document)	Basic configuration for 480G with DC
02350AQR	CR5P16BASA76	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(480G), 10 AC Power,4 Fan Tray, without Software Charge and Document)	Basic configuration for 480G with AC
02350AUC	CR5P16BASD77	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(1T), 10 DC Power,6 Fan Tray,without Software Charge and Document)	Basic configuration for 1T with DC

02350AUD	CR5P16BASA77	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(1T), 14 AC Power,6 Fan Tray, without Software Charge and Document)	Basic configuration for 1T with AC
----------	--------------	---	------------------------------------

**Table 18.** NE40E-X16A V800R008 Basic Components

BOM Number	Order Name	Description	Remarks
02359914	CR5B0BKP1673	NE40E-X16A Integrated DC Chassis Components (Including 4 Fan Tray)	Includes: chassis and fan box. Not includes: DC power.
02359915	CR5B0BKP1674	NE40E-X16A Integrated AC Chassis Components (Including 4 Fan Tray)	Includes: chassis and fan box. Not includes: AC power.
03057244	CR5D0MPUB571	Main Processing Unit B5(16G Memory)	Recommended quantity: two for each chassis.
03055780	CR5DSFUIM07B	480Gbps Switch Fabric Unit B(SFUI-480-B)	To be configured as needed. To be purchased only when it is used as a spare part.
03056091	CR5DSFUIU07B	1Tbps Switch Fabric Unit B(SFUI-1T-B)	To be configured as needed. To be purchased only when it is used as a spare part.
02311CNP	PDC-2200WB	PSU-PDC-2200WB-PM2200W DC Power Supply	To be configured as needed.
02310VMA	PHD-3000WA	3000W AC Power Module	To be configured as needed.
02310WTG	E008DDR10	8GB 240pin Memory Module	To be purchased only when it is used as a spare part.
02120866	CR5M000FBX61	Fan Box	To be purchased only when it is used as a spare part.

### Service Interface Boards

NE40E Series routers support 100GE, 40GE, 10GE, GE (SFP/RJ-45) interface boards, and 10Gbps, 2.5Gbps, 622Mbps and 155Mbps POS interface boards, and 155Mbps channelized POS and Channelized E1 interface boards.

**Table 19.** Compatible LPUF-480 Series in NE40E Series Routers ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03055820	CR5DLPUFM070	Flexible Card Line Processing Unit(LPUF-480)	-	-	-	-	●	●	
03057035	CR5DLPUFM07B	Flexible Card Line Processing Unit B(LPUF-480-B)	-	-	-	-	●	●	
03030SWH	CR5D00E2NC72	2-Port 100GBase-CFP2 Flexible Card A(P480-A)	-	-	-	-	●	●	
03030SWL	CR5D00LFXF74	24-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P480-A)	-	-	-	-	●	●	

**Table 20.** Compatible LPUF-240 Series in NE40E Series Routers ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03055720	CR5DLPUFF07E	Flexible Card Line Processing Unit(LPUF-240-E)	-	●	●	-	●	●	
03054690	CR5DLPUFF070	Flexible Card Line Processing Unit(LPUF-240)	-	●	●	-	●	●	
03054698	CR5DLPUFF07B	Flexible Card Line Processing Unit(LPUF-240-B)	-	●	●	-	●	●	
03030QDF	CR5D00E1NC74	1-Port 100GBase-CFP Flexible CardA (P240-A)	-	●	●	-	●	●	
03030QDD	CR5D00LBXF71	12-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P240-A)	-	●	●	-	●	●	
03030WGT	CR5D0E3MFA70	3-Port 40GBase-QSFP+ Flexible Card(P240-A)	-	●	●	-	●	●	
03030TUQ	CR5D0LAXFE70	10-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P240-E)	-	●	●	-	●	●	

**Table 21.** Compatible LPUF-200 Series in NE40E Series Routers ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03056598	CR5DLPUFE070	Flexible Card Line Processing Unit(LPUF-200)	-	-	-	●	-	-	
03030QDF	CR5D00E1NC74	1-Port 100GBase-CFP Flexible Card A(P240-A)	-	-	-	●	-	-	
03030TUL	CR5D00LAXF70	10-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P240-A)	-	-	-	●	-	-	

**Table 22.** Compatible LPUF-120 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03054628	CR5DLPUFB07E	Flexible Card Line Processing Unit(LPUF-120) E	•	•	•	•	•	•	
03054679	CR5DLPUFB070	Flexible Card Line Processing Unit(LPUF-120)	•	•	•	•	•	•	The total bandwidth of flexible cards installed cannot exceed 120 Gbps. Otherwise, the flexible card installed later fails to register.
03054680	CR5DLPUFB07B	Flexible Card Line Processing Unit(LPUF-120) B	•	•	•	•	•	•	
03030PYU	CR5D00E1NC75	1-Port 100GBase-CFP Flexible Card A(P120-A)	•	•	•	•	•	•	Only one can be installed in each LPUF-120 Series line processing unit.
03030PMQ	CR5D00E1MC70	1-Port 40GBase LAN-CFP Flexible Card A (P101-A)	•	•	•	•	•	•	
03030NVF	CR5D00LBXF72	12-Port 10G Base LAN/WAN-SFP+ Flexible Card A(P120-A)	•	•	•	•	•	•	Only one can be installed in each LPUF-120 Series line processing unit.
03030QDE	CR5D0L6XFA70	6-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P120-A)	•	•	•	•	•	•	
03030PMK	CR5D0L5XFA72	5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P101-A)	•	•	•	•	•	•	
03030PMN	CR5D0EFGFA71	24-Port 100/1000Base-X-SFP Flexible Card A(P101-A)	•	•	•	•	•	•	
03030QKM	CR5D0L5XFE71	5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P101-E)	•	•	•	-	-	-	Supports eTM card. Only applicable in LPUF-120-E boards. Supported in V600R008; Not supported in V800R008.

03030PYE	CR5D0EFGFE70	24-Port 1000Base-X-SFP Flexible Card E(P51-E)	•	•	•	-	-	-	Supports eTM card. Only applicable in LPUF-120-E boards. Supported in V600R008; Not supported in V800R008.
03031LUU	CR5D00P2XX72	2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A)	-	•	•	•	•	•	Supported in V800R008; Not supported in V600R008.
03030RXS	CR5D00P8UF70	8-Port OC-48c/STM-16c POS-SFP Flexible Card(P120)	-	•	•	•	•	•	Can used as 8 x 622Mbps. Supported in V800R008; Not supported in V600R008.

**Table 23.** Compatible LPUF-51 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03055189	CR5DLPUF517E	Flexible Card Line Processing Unit(LPUF-51,2 sub-slots) E	•	•	•	•	•	•	
03054483	CR5DLPUF517B	Flexible Card Line Processing Unit(LPUF-51,2 sub-slots) B	•	•	•	•	•	•	The total bandwidth of any two flexible cards installed cannot exceed 61 Gbps. Otherwise, the flexible card installed later fails to register.
03030QKN	CR5D0EEGEA70	20-Port 10/100/1000Base-RJ45 Flexible Card A(P51-A)	•	•	•	•	•	•	
03030PMC	CR5D0L5XFA70	5-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A, Occupy two slots)	•	•	•	•	•	•	
03030PME	CR5D0L2XFA71	2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P51-A)	•	•	•	•	•	•	
03030PMA	CR5D0EFGFA70	24-Port 100/1000Base-X-SFP Flexible Card A(P51-A)	•	•	•	•	•	•	

03030PYE	CR5D0EFGFE70	24-Port 1000Base-X-SFP Flexible Card E(P51-E)	•	•	•	-	-	-	Only applicable in LPUF-51-E boards. Supported in V600R008; Not supported in V800R008.
03030PYG	CR5D0L5XFE70	5-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P51-E, Occupy two sub-slots)	•	•	•	-	-	-	Only applicable in LPUF-51-E boards. Supported in V600R008; Not supported in V800R008.
03030PYF	CR5D0L2XFE70	2-Port 10GBase LAN/WAN-SFP+ Flexible Card E(P51-E)	•	•	•	-	-	-	Only applicable in LPUF-51-E boards. Supported in V600R008; Not supported in V800R008.
03031LUU	CR5D00P2XX72	2-Port OC-192c/STM-64c POS-XFP Flexible Card(P51-A)	-	•	•	•	•	•	Only applicable in LPUF-51-E boards, not applicable in LPUF-51-B. Supported in V800R008; Not supported in V600R008.

**Table 24.** Compatible LPUF-50 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03054447	CR5DLPUF5070	Flexible Card Line Processing Unit(LPUF-50,four slots)	•	•	•	•	•	•	Does not support E3, T3, and ATM.
03030NSK	CR5D0L2XFA70	2-Port 10GBase LAN/WAN-SFP+ Flexible Card A(P50-A,Occupy one sub-slot)	•	•	•	•	•	•	Only supports slot 0 and slot 1.
03030KNE	CR5M0E8GFA30	8-Port 100/1000Base-X-SFP Flexible Card A(P10-A,Supporting 1588v2)	•	•	•	•	•	•	
03030JUA	CR53-P10-8xPOS/STM1-SFP	8-port OC-3c/STM-1c POS-SFP Flexible Card	•	•	•	•	•	•	

03030JTY	CR53-P10-4xPOS/STM1-SFP	4-port OC-3c/STM-1c POS-SFP Flexible Card	-	•	•	•	•	•	Supported in V800R008; Not supported in V600R008.
03031JYH	CR5D00P2CF70	2-Port OC-3c/STM-1c POS-SFP Flexible Card	-	•	•	•	•	•	Supported in V800R008; Not supported in V600R008.
03030PTB	CR5D00C8CF71	8-Port Channelized STM-1c POS-SFP Flexible Card(P50)	•	•	•	•	•	•	
03030PVG	CR5D00C4CF70	4-Port Channelized STM-1c POS-SFP Flexible Card(P50)	•	•	•	•	•	•	
03031JYK	CR5D00C2CF70	2-Port Channelized STM-1c POS-SFP Flexible Card(P50)	-	•	•	•	•	•	Supported in V800R008; Not supported in V600R008.
03030KHP	CR53-P10-24xcE1/cT1-DB100	24-Port Channelized E1/T1-DB100 Flexible Card	•	•	•	•	•	•	T1 is not supported in V800R008.
03030FSL	CR53-P10-1xPOS/STM64-XFP	1-Port OC-192c/STM-64c POS-XFP Flexible Card(Occupy two slots)	•	•	•	•	•	•	
03030JCX	CR53-P10-4xPOS/STM16-SFP	4-port OC-48c/STM-16c POS-SFP Flexible Card	•	•	•	•	•	•	
03030HNJ	CR53-P10-2xPOS/STM16-SFP	2-port OC-48c/STM-16c POS-SFP Flexible Card	•	•	•	•	•	•	
03030JUB	CR53-P10-8xPOS/STM4-SFP	8-port OC-12c/STM-4c POS-SFP Flexible Card	•	•	•	•	•	•	
03030JCY	CR53-P10-4xPOS/STM4-SFP	4-port OC-12c/STM-4c POS-SFP Flexible Card	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03030UVV	CR5M00C1HF50	1-Port Channelized STM-4 POS-SFP Flexible Card(P50)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03030KBB	CR53-P10-2xcPOS/STM1-SFP	2-Port Channelized OC-3c/STM-1c POS-SFP Flexible Card	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.

**Table 25.** Compatible LPUI-480 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03056318	CR5D00E4NC70	4-Port 100GBase-CFP2 Integrated Line Processing Unit (LPUI-480)	-	-	-	-	•	•	
03055821	CR5D00LMXF70	48-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit (LPUI-480)	-	-	-	-	•	•	



03055838	CR5DE2NLFX70	2-Port 100GBase-CFP2 + 24-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit (LPUI-480)	-	-	-	-	•	•	
03057036	CR5D00LMXF7B	48-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-480-B)	-	-	-	-	•	•	
03057037	CR5DE2NLFX7B	2-Port 100GBase-CFP2 + 24-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-480-B)	-	-	-	-	•	•	
03057039	CR5D00E4NC7B	4-Port 100GBase-CFP2 Integrated Line Processing Unit B(LPUI-480-B)	-	-	-	-	•	•	

**Table 26.** Compatible LPUI-240 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03054691	CR5D00E2NC70	2-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-240)	-	•	•	-	•	•	
03054694	CR5D00E2NC73	2-Port 100GBase LAN-CFP Integrated Line Processing Unit B(LPUI-240-B)	-	•	•	-	•	•	
03054693	CR5DE2NLBX70	1-Port 100GBase-CFP + 12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit (LPUI-240)	-	•	•	-	•	•	
03054696	CR5DE2NLBX73	1-Port 100GBase-CFP + 12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-240-B)	-	•	•	-	•	•	
03054692	CR5D00LFX70	24-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit (LPUI-240)	-	•	•	-	•	•	
03054695	CR5D00LFX73	24-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-240-B)	-	•	•	-	•	•	

03056105	CR5D0E6MFA70	6-Port 40GBase-QSFP+ Integrated Line Processing Unit (LPUI-240)	-	•	•	-	•	•	
03056106	CR5D0E6MFA71	6-Port 40GBase-QSFP+ Integrated Line Processing Unit (LPUI-240-B)	-	•	•	-	•	•	

**Table 27.** Compatible LPUI-200 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03056862	CR5D00E2NC76	2-Port 100GBase-CFP Integrated Line Processing Unit(LPUI-200)	-	-	-	•	-	-	
03056863	CR5D00LEXF76	20-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-200)	-	-	-	•	-	-	
03056864	CR5DE1NLAX76	1-Port 100GBase-CFP + 10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-200)	-	-	-	•	-	-	

**Table 28.** Compatible LPUI-120 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
03054683	CR5D00E1NC76	1-Port 100GBase-CFP Integrated Line Processing Unit (LPUI-120)	•	•	•	•	•	•	
03054686	CR5D00E1NC7B	1-Port 100GBase-CFP Integrated Line Processing Unit B(LPUI-120-B)	•	•	•	•	•	•	
03054681	CR5D0LBXFA70	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit(LPUI-120)	•	•	•	•	•	•	
03054684	CR5D0LBXFA7B	12-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-120-B)	•	•	•	•	•	•	
03054682	CR5D0E2MCA70	2-Port 40GBase LAN-CFP Integrated Line Processing Unit(LPUI-120)	•	•	•	•	•	•	

03054685	CR5D0E2MCA7 B	2-Port 40GBase LAN-CFP Integrated Line Processing Unit B(LPUI-120-B)	•	•	•	•	•	•	
03054627	CR5DLAXFAJ7 E	10-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-102-E)	•	•	•	-	-	-	

**Table 29.** Compatible LPUI-51/21 Series in NE40E Series Routers ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	X3	X8	X16	X3A	X8A	X16A	Remarks
<b>LPUI-51</b>									
03055051	CR5D0L5XFA7J	5-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-51-E)	•	•	•	•	•	•	
03054485	CR5D0L5XFA7 B	5-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-51-B)	•	•	•	•	•	•	
03054486	CR5D0L4XFA7 B	4-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit B(LPUI-51-B)	•	•	•	•	•	•	
03055052	CR5DL2XEFG7 J	2-Port 10GBase LAN/WAN-SFP+ + 24-Port 100/1000Base-X-SFP Integrated Line Processing Unit E(LPUI-51-E)	•	•	•	•	•	•	
03054489	CR5DL2XEFG7 B	2-Port 10GBase LAN/WAN-SFP+ + 24-Port 100/1000Base-X-SFP Integrated Line Processing Unit B(LPUI-51-B)	•	•	•	•	•	•	
03055053	CR5D0EMGFA7 J	48-Port 100/1000Base-X-SFP Integrated Line Processing Unit E(LPUI-51-E)	•	•	•	•	•	•	
03054488	CR5D0EMGFA7 B	48-Port 100/1000Base-X-SFP Integrated Line Processing Unit B(LPUI-51-B)	•	•	•	•	•	•	
03054626	CR5D0L5XFA7 E	5-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit E(LPUI-51-E,Enhanced	•	•	•	-	-	-	Supports eTM card. Supported in

		HQos)							V600R008; Not supported in V800R008.
03054625	CR5DL2XEFG7 E	2-Port 10GBase LAN/WAN-SFP+ + 24-Port 1000Base-X-SFP Integrated Line Processing Unit E(LPUI-51-E, Enhanced HQos)	•	•	•	-	-	-	Supports eTM card. Supported in V600R008; Not supported in V800R008.
03054993	CR5DL3XEFG7 C	3-Port 10GBase LAN/WAN-SFP+ + 24-Port 100/1000Base-X-SFP Integrated Line Processing Unit E(LPUI-51-E)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
<b>LPUI-51-L</b>									
Note: LPUI-51-L does not support L2TPv3, and can not used as an LNS of L2TP, and it is not recommended to installed in the chassis deployed L2TP service. LPUI-51-L cannot function as a virtual cluster interconnection board.									
03054520	CR5D0L5XFA7L	5-Port 10GBase LAN/WAN-SFP+ Integrated Line Processing Unit L(LPUI-51-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03054528	CR5D0EMGFA7 L	48-Port 100/1000Base-X-SFP Integrated Line Processing Unit L(LPUI-51-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03054525	CR5DL2XEIG7L	2-Port 10GBase LAN/WAN-SFP+ + 32-Port 100/1000Base-X-SFP Integrated Line Processing Unit L(LPUI-51-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03055716	CR5DL4XEBG7 L	4-Port 10GBase LAN/WAN-SFP+ + 12-Port 100/1000Base-X-SFP Integrated Line Processing Unit L(LPUI-51-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
<b>LPUI-21-L</b>									
Note: LPUI-21-L can not be used as an LNS of L2TP, and It is not recommended to install LPUI-21-L in the chassis deployed L2TP service.									
03054535	CR5DL1XEDG7 0	1-Port 10GBase LAN/WAN-SFP+ + 16-Port 100/1000Base-X-SFP Integrated Line Processing Unit L(LPUI-21-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.
03054532	CR5D0EFGFA7 3	24-Port 100/1000Base-X-SFP Integrated Line Processing Unit L(LPUI-21-L)	•	•	•	-	-	-	Supported in V600R008; Not supported in V800R008.

## Versatile Service Boards

**Table 30.** Compatible Service Boards ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
0305G062	CR5DVSUI201A	Integrated Versatile Service Unit(VSUI-20-A)	●	●	●	-	-	-	-	-
03054425	CR5DVSUF8010	Flexible Card Versatile Service Unit 80(VSUF-80)	●	●	●	●	●	●	●	●
03054421	CR5DVSUFD010	Flexible Card Versatile Service Unit 160(VSUF-160)	-	●	●	-	●	●	●	●
03030PLN	CR5D00SP8010	Versatile Service Flexible Card(SP80)	●	●	●	●	●	●	●	●
03030PTF	CR5D00SPD010	Versatile Service Flexible Card(SP160)	-	●	●	-	●	●	●	●

## Optical/Electrical Transceivers

**Table 31.** Compatible 100G CFP/CFP2 Optical Transceiver ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
02310WUR	OSN010N09	High Speed Transceiver,CFP2,4*25Gb/s(1310nm Band),103.125Gb/s,-2.5dBm,4.5dBm,-8.6dBm,LC straight,SMF,10km	-	-	-	-	-	●	-	●
S4017456	OSN010N04	Optical transceiver,CFP,1295/1300/1304/1309nm,103.125Gbps,-4.3dBm,4.5dBm,-8.6dBm,LC,SMF,10km	●	●	●	●	●	●	●	●
02310WUS	OSN040N02	High Speed Transceiver,CFP,1310nm Band,103.125Gb/s,-2.9dBm,2.9dBm,-21.4dBm,Straight LC,SMF,40km,OMA OPTICAL POWER,100GBASE-ER4	●	●	●	●	●	●	●	●
S4017457	OSN010003	Optical Transceiver,CFP,850nm,10*10.3125Gb/s,-7.6dBm,2.4dBm,-5.4dBm,mpo,MM,0.1km	●	●	●	●	●	●	●	●
02311JNT	OSN080N10	High Speed Transceiver,CFP,1310nm,103.125Gb/s,2.0dBm,7.0dBm,-30.0dBm,Straight LC,SMF,80km	-	-	-	●	●	●	●	●

**Table 32.** Compatible 40G CFP Optical Transceiver ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
02310WUV	OSMD10N02	High Speed Transceiver,CFP,850nm,4*10.3125Gb/s,-7.6dBm,2.4dBm,-9.5dBm,MPO,MM,0.1km	●	●	●	-	-	-	-	-
34060636	OSM010C01	High Speed Transceiver,CFP,1271~1331nm CWDM,41.25Gb/s,-4dBm,3.5dBm,-11.5dBm,LC,SM,10km	●	●	●	-	-	-	-	-
34060799	OSM040C00	High Speed Transceiver,CFP,4*10Gb/s(1310 NM BAND),41.25Gb/s,-1.1dBm,3.8dBm,-18dBm,straight LC,SMF,40km,OMA OPTICAL POWER,40GBASE-ER4	●	●	●	-	-	-	-	-
02311AYS	OSX080N05	High Speed Transceiver,CFP,4*10Gb/s(1550 NM BAND),41.25Gb/s,-0dBm,4.5dBm,-22dBm,straight LC,SMF,80km	-	-	-	●	●	●	●	●
S4017471	OSM010C02	High Speed Transceiver,CFP,1271~1331nm CWDM-41.25Gb/s--1dBm-3dBm-11.5dBm-LC-SM-10km	-	-	-	●	●	●	●	●
02311BLM	OSM040C01	High Speed Transceiver,CFP,4*10Gb/s(1310 NM BAND),41.25Gb/s,-1.1dBm,3.8dBm,-18dBm,straight LC,SMF,40km,OMA OPTICAL POWER,40GBASE-ER4	-	-	-	●	●	●	●	●

**Table 33.** Compatible 40G QSFP+ Optical Transceiver ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
02310WUT	OMXD30009	Optical Transceiver,QSFP+,1310nm,41.25Gbps,-7dBm,2.3dBm,-11.5dBm,LC,SMF,10km	●	●	●	-	●	●	●	●
02310WUU	OMXD30010	Optical Transceiver,QSFP+,850nm,41.25Gbps,-7.6dBm,-1dBm,-9.5dBm,MPO,MMF,0.15km	●	●	●	-	●	●	●	●

**Table 34.** Compatible 10G XFP Optical Transceiver ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
S4015798	XFP-850-FC10G/10GbE-0.3km	Optical Transceiver(XFP,850nm,10.3Gb/s,-7.3dBm~-1.3dBm,-7.5dBm,LC,Multimode,0.3Km)	●	●	●	●	●	●	●	●
S4015772	OSX010N08	Optical Transceiver(XFP,1310nm,9.95~10.71Gb/s,-6dBm~-1dBm,-14.4dBm,Singlemode,LC,10km)	●	●	●	●	●	●	●	●
S4015776	OSX040N09	Optical Transceiver(XFP,1550nm,9.95Gb/s to 11.1Gb/s,-1dBm~2dBm,-15dBm,LC,Singlemode,40km)	●	●	●	●	●	●	●	●
S4015794	OSX080N06	Optical transceiver(XFP,1550nm,9.95Gb/s to 11.1Gb/s,0~4dBm,-24dBm,LC,Singlemode,80km)	●	●	●	●	●	●	●	●
34060554	XFP-LH70-SM1611	Optical Transceiver-XFP-1611nm-9.95~11.1Gb/s-0dBm-3dBm--21dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060553	XFP-LH70-SM1591	Optical Transceiver-XFP-1591nm-9.95~11.1Gb/s-0dBm-3dBm--21dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060552	XFP-LH70-SM1571	Optical Transceiver-XFP-1571nm-9.95~11.1Gb/s-0dBm-4dBm--22dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060551	XFP-LH70-SM1551	Optical Transceiver-XFP-1551nm-9.95~11.1Gb/s-0dBm-4dBm--23dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060550	XFP-LH70-SM1531	Optical Transceiver-XFP-1531nm-9.95~11.1Gb/s-0dBm-4dBm--23dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060549	XFP-LH70-SM1511	Optical Transceiver-XFP-1511nm-9.95~11.1Gb/s-0dBm-4dBm--23dBmLC-SM-70km	●	●	●	-	●	-	●	-
34060548	XFP-LH70-SM1491	Optical Transceiver-XFP-1491nm-9.95~11.1Gb/s-0dBm-4dBm--23dBmLC-SM-70km	●	●	●	-	●	-	●	-

34060547	XFP-LH70-SM1471	Optical Transceiver-XFP-1471nm-9.95~11.1Gb/s-0dBm-4dBm--23dBmLC-SM-70km	•	•	•	-	•	-	•	-
34060515	XFP-LH80-195.90	Optical Transceiver,XFP,1530.33nm,9.95G~11.1Gbps,-1~3dBm,-24.0dBm,LC,SM,80km	•	•	•	-	•	-	•	-
34060501	XFP-LH80-193.30	Optical Transceiver,XFP,1550.92nm,9.95G~11.1Gbps,-1~3dBm,-24.0dBm,LC,SM,80km	•	•	•	-	•	-	•	-
34060687	OSX070002	Optical Transceiver-SFP+-1471nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060688	OSX070003	Optical Transceiver-SFP+-1491nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060686	OSX070001	Optical Transceiver-SFP+-1511nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060689	OSX070004	Optical Transceiver-SFP+-1531nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060690	OSX070005	Optical Transceiver-SFP+-1551nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060691	OSX070006	Optical Transceiver-SFP+-1571nm-9.95~11.1Gb/s-0dBm-4dBm--22dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060692	OSX070007	Optical Transceiver-SFP+-1591nm-9.95~11.1Gb/s-0dBm-3dBm--21dBm-LC-SM-70km	•	•	•	•	•	•	•	•
34060693	OSX070008	Optical Transceiver-SFP+-1611nm-9.95~11.1Gb/s-0dBm-3dBm--21dBm-LC-SM-70km	•	•	•	•	•	•	•	•

**Table 35.** Compatible 10G SFP+ Optical Transceiver ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
S4017482	OSX040N03	Optical Transceiver(SFP+,850nm,10Gb/s,-7.3~-1dBm,-11.1dBm,LC, MM,0.3km)	•	•	•	•	•	•	•	•



S4017483	OSX001002	Optical Transceiver(SFP+,1310nm,10Gb/s,8.2~0.5dBm,-12.6dBm,LC,SM,10km)	•	•	•	•	•	•	•	•	•
S4017484	OMXD30002	Optical Transceiver(SFP+,1550nm,9.95~11.1Gb/s,-4.7~4dBm,-14.1dBm,LC,SM,40km)	•	•	•	•	•	•	•	•	•
02310PVU	OSX080N04	Optical Transceiver(SFP+,1550nm,9.953~10.3125Gb/s,0~4dBm,-24dBm,LC,SM,80km)	•	•	•	•	•	•	•	•	•
34060686	OSX070001	Optical Transceiver-SFP+-1511nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060687	OSX070002	Optical Transceiver-SFP+-1471nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060688	OSX070003	Optical Transceiver-SFP+-1491nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060689	OSX070004	Optical Transceiver-SFP+-1531nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060690	OSX070005	Optical Transceiver-SFP+-1551nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060691	OSX070006	Optical Transceiver-SFP+-1571nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060692	OSX070007	Optical Transceiver-SFP+-1591nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•
34060693	OSX070008	Optical Transceiver-SFP+-1611nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM -70km	•	•	•	•	•	•	•	•	•

**Table 36.** Compatible 2.5G eSFP Optical Transceiver ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008					
			X3	X8	X16	X3A	X8	X8A	X16	X16A	
34060484	eSFP-1310nm-155M-2.5G-LC-SM-2km	Optical Transceiver,eSFP,1310nm,155M~2.67G,-10~-3dBm,-18dBm,LC,SM,2km	•	•	•	•	•	•	•	•	•

34060485	eSFP-SM1310-155M~2.5G-15km	Optical Transceiver,eSFP,1310nm,155M~2.67G,-5~0dBm,-21dBm,LC,SM,15km	•	•	•	•	•	•	•	•
34060289	eSFP-1310nm-L-16.1	Optical Transceiver,eSFP,1310nm,STM16,-2~3dBm,-29dBm,LC,SM,40km	•	•	•	•	•	•	•	•
34060488	eSFP-1550nm-L-16.2	Optical Transceiver,eSFP,1550nm,STM16,-2~3dBm,-30dBm,LC,SM,80km	•	•	•	•	•	•	•	•

**Table 37. Compatible 1G SFP/eSFP Optical/Electrical Transceiver ("•" indicates "support", and "-" indicates "not support")**

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
02310RAV	OEGD01N01	Optical Functional Module,1000BASE-T-SFP Module,RJ45 Electrical Module,Auto Negotiate,Longest Transimission Distance 100m,-40~85	•	•	•	•	•	•	•	•
34060286	eSFP-850nm-1000Base-Sx/FC200MM	Optical Transceiver,eSFP,850nm,2.125Gb/s(Multi rate) ,-9.5~-2.5dBm,-17dBm,LC,M,0.5km	•	•	•	•	•	•	•	•
S4016067	OSG010N05	Optical transceiver,eSFP,1310nm,1.25Gb/s,-9~-3dBm,-20dBm,LC,Single Mode,10km	•	•	•	•	•	•	•	•
S4016954	OSG040002	Optical Transceiver(eSFP,1310nm,1.25Gb/s,-5~0dBm,-23dBm,LC,SM,40km)	•	•	•	•	•	•	•	•
34060360	eSFP-1550nm-1000Base-Zx/FC100	Optical Transceiver,eSFP,1550nm,1.25Gb/s,-2~5dBm,-23dBm,LC,SM,80km	•	•	•	•	•	•	•	•
34060295	eSFP-GE-ZX100-SM1550	Optical Transceiver,eSFP,1550nm,1.25Gb/s,0~5dBm,-30dBm,LC,SM,100km	•	•	•	•	•	•	•	•
34060483	eSFP-LH80SM1471	Optical Transceiver,eSFP,1471nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060481	eSFP-LH80SM1491	Optical Transceiver,eSFP,1491nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•

34060479	eSFP-LH80SM1511	Optical Transceiver,eSFP,1511nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060482	eSFP-LH80SM1531	Optical Transceiver,eSFP,1531nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060478	eSFP-LH80SM1551	Optical Transceiver,eSFP,1551nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060476	eSFP-LH80SM1571	Optical Transceiver,eSFP,1571nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060477	eSFP-LH80SM1591	Optical Transceiver,eSFP,1591nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•
34060480	eSFP-LH80SM1611	Optical Transceiver,eSFP,1611nm,100M~2.67Gbps,5dBm,0dBm,-28dBm,LC,80Km	•	•	•	•	•	•	•	•

**Table 38.** Compatible 622M SFP/eSFP Optical/Electrical Transceiver ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
S4015760	OSH015N05	Optical Transceiver(eSFP,1310nm,STM4,-15dBm~-8dBm,-30dBm,Singlemode,LC,15Km)	•	•	•	•	•	•	•	•
34060280	eSFP-1310nm-L-4.1	Optical Transceiver,eSFP,1310nm,STM4,-3~2dBm,-30dBm,LC,SM,40km	•	•	•	•	•	•	•	•
34060284	eSFP-1550nm-L-4.2	Optical Transceiver,eSFP,1550nm,STM4,-3~2dBm,-30dBm,LC,SM,80km	•	•	•	•	•	•	•	•

**Table 39.** Compatible 155M SFP/eSFP Optical/Electrical Transceiver ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A

S4015731	SFP-FE-SXMM1310	Optical Transceiver(SFP,1310nm,STM1,19dBm~-14dBm,-30dBm,Multimode,LC,2km)	•	•	•	•	•	•	•	•
S4015755	eSFP-FE-LX-SM1310	Optical Transceiver(eSFP,1310nm,STM1, -15dBm~-8dBm,-31dBm,Singlemode,LC,15Km)	•	•	•	•	•	•	•	•
BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
S4015715	eSFP-FE-LH 40-SM1310	Optical Transceiver(eSFP,1310nm,STM1, -5dBm~0dBm,-37dBm,Singlemode,LC,40Km)	•	•	•	•	•	•	•	•
34060282	eSFP-FE-LH 80-SM1550	Optical Transceiver,eSFP,1550nm,STM1, -5~0dBm,-37dBm,LC,SM,80km	•	•	•	•	•	•	•	•

**Table 40.** Compatible BIDI eSFP Optical/Electrical Transceiver ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Integrated Line Processing Units	V600R008			V800R008				
			X3	X8	X16	X3A	X8A	X16A	X3	X8
34060525	O00CSFP25	Integrated Optical Transmitting and Receiving Module,CSFP,Transmitting:1490nm,Receiving:1310nm,1.25Gb/s,-9.0dBm,-3.0dBm,-19.5dBm,LC,10km	-	•	•	-	•	-	•	-
02310QNG	OSC015B01	Optical transceiver,eSFP,Tx 1310nm/Rx 1550nm,155M,-8dBm,-15dBm,-32dBm,LC/PC,SM,15km	•	•	•	•	•	•	•	•
02310QNH	OSC015B02	Optical transceiver,eSFP,Tx 1550nm/Rx 1310nm,STM1,-8dBm,-15dBm,-32dBm,LC/PC,SM,15km	•	•	•	•	•	•	•	•
34060470	SFP-GE-LXSM1310-BIDI	BiDi Transceiver,eSFP,Tx1310nm/Rx1490nm,1.25Gb/s,-9dBm,-3dBm,-19.5dBm,LC,SM,10km	•	•	•	•	•	•	•	•
34060475	SFP-GE-LXSM1490-BIDI	BiDi Transceiver,eSFP,Tx1490nm/Rx1310nm,1.25Gb/s,-9dBm,-3dBm,-19.5dBm,LC,SM,10km	•	•	•	•	•	•	•	•
34060638	eSFP-1310/1550-L1.1-BIDI	BiDi Transceiver,eSFP,Tx1310nm/Rx1550nm,0.1~1.25Gb/s,-3~2dBm,-25dBm,LC,SM,40km	•	•	•	•	•	•	•	•

34060639	eSFP-1550/1310-L1.1-B IDI	BiDi Transceiver,eSFP,Tx1550nm/Rx1310nm,0.1~1.25Gb/s,-3~-2dBm,-25dBm,LC,SM,40km	•	•	•	•	•	•	•	•
34060539	OGEBIDI41	Optical Transceiver,eSFP,1310nm(Tx)/1490nm(Rx),1.25Gb/s,-2dBm,3dBm,-23dBm,LC,SM,40km	•	•	•	•	•	•	•	•
34060540	OGEBIDI40	Optical Transceiver,eSFP,1490nm(Tx)/1310nm(Rx),1.25Gb/s,-2dBm,3dBm,-23dBm,LC,SM,40km	•	•	•	•	•	•	•	•
34060595	OGEBIDI80	BiDi Transceiver,eSFP,1570nm(Tx)/1490nm(Rx),1.25Gbps,-2dBm,4dBm,-26dBm,LC,SM,80km	•	•	•	•	•	•	•	•
34060596	OGEBIDI81	BiDi Transceiver,eSFP,1490nm(Tx)/1570nm(Rx),1.25Gbps,-2dBm,4dBm,-26dBm,LC,SM,80km	•	•	•	•	•	•	•	•
34060544-002	OSX010B10	BiDi Transceiver,SFP+,1270nm(Tx)/1330nm(Rx),2.5~11.3Gb/s,-8.2dBm,0.5dBm,-14.4dBm,LC,SM,10km	•	•	•	•	•	•	•	•
34060546-002	OSX010B11	BiDi Transceiver,SFP+,1330nm(Tx)/1270nm(Rx),2.5~11.3Gb/s,-8.2dBm,0.5dBm,-14.4dBm,LC,SM,10km	•	•	•	•	•	•	•	•

**Power Distribution Box**

**Table 41.** NE40E Series Power Distribution Box ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Power Distribution Box	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
02120641	CR5MDPD30000	DPD300-4-12 Power Distribution Box, Dual-Two Inputs	-	•	•	-	•	-	•	-

**Telescopic Slide**

**Table 42.** NE40E Series Telescopic Side ("•" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Telescopic Slide	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
21242246	E00TSLD00	Chassis General Accessories-Telescopic slide-Square hole range-500mm~850mm	•	•	•	•	•	•	•	•

## Software Configuration

The NE40E Series Routers provide software license charging policies. The general principle is **base packages + feature licenses + upgrade fees**.

- Base package: mandatory for each version and must be purchased for a new site.
- Feature license: optional and can be purchased based on requirements to implement certain functions.
- Software version upgrade fee: The software version upgrade fee is required if a current version needs to be upgraded to a later version to support new features.

**Table 43.** NE40E Series Routers V800R008 Software Configuration List

BOM Number	Order Name	Description	Remarks
88033HLV	CR5S40BS8800	NetEngine40E Base SW,VRP8,V800R008	Required at new sites
81400475	CR5S400EPT00	NetEngine40E Ethernet Performance Test License	(Optional) one for each chassis only when the RFC 2544 feature is used.
82400313	CR5S40L3VN01	NetEngine40E&80E L3VPN Function License for LPUF-51-B	(Optional) one for each LPUF-51-B board.
82400314	CR5S40L3VN02	NetEngine40E&80E L3VPN Function License for LPUI-51-B	(Optional) one for each LPUI-51-B board.
82400378	CR5S40L3VN07	NetEngine40E L3VPN Function License for LPUI-120-B	(Optional) one for each LPUI-120-B board.
82400379	CR5S40L3VN08	NetEngine40E L3VPN Function License for LPUF-120-B	(Optional) one for each LPUF-120-B board.
82400380	CR5S40L3VN05	NetEngine40E L3VPN Function License for LPUI-240-B	(Optional) one for each LPUI-240-B board.
82400381	CR5S40L3VN06	NetEngine40E L3VPN Function License for LPUF-240-B	(Optional) one for each LPUF-240-B board.
82400798	CR5S40L3VN0A	NetEngine40E L3VPN Function License for LPUI-480-B	(Optional) one for each LPUI-480-B board.
82400799	CR5S40L3VN0B	NetEngine40E L3VPN Function License for LPUF-480-B	(Optional) one for each LPUF-480-B board.
81400189	CR5S40CLCK00	NetEngine40E&80E 1588v2 Function License	(Optional) one for each chassis.

81400474	CR5S400FPM00	NetEngine40E&80E IP Performance Measure License(IP FPM)	(Optional) one for each chassis.
81400537	CR5S4000VS00	NetEngine40E Virtual System Function License	(Optional) one for each chassis.
88030BUW	CR5S40EF0000	NetEngine40E&80E Software Release Entitlement from Rn to R(n+1)	Version upgrade fees. One for each chassis.
82400852	CR5S4IPSEC00	NetEngine40E IPSec Function License for VSU Series Units	(Optional) one for each VSU board.
82400802	CR5S40IPTQ00	NetEngine40E IPSec Tunnels Quantity(500)	(Optional) You can configure one or more licenses, which are shared by all boards on one chassis.
81400370	CR5S40BRAS02	NetEngine40E PPPoE/IPoE Function License	(Optional) one for each chassis.
82400206	CR5S40QS0100	NetEngine40E Subscribers Quantity(1k Subscribers)	(Optional) You can configure one or more licenses, which are shared by all boards on one chassis.
81400210	CR5S40L2TP00	NetEngine40E&80E L2TP Function License	(Optional) one for each chassis.
82400240	CR5S40NATS00	NetEngine40E&80E 2M NAT Session License	(Optional) You can configure one or more licenses, which are shared by all boards on one chassis.
88031QNW	CR5S00NATS01	NetEngine40E&80E 16M NAT session License for VSU Series Units	(Optional) You can configure one or more licenses, which are shared by all boards on one chassis.
82400341	CR5S4020GC00	NetEngine40E&80E 20Gbps capacity License for VSU Series Units	(Optional) One for VSUF-80, and One or Two for VSUF-160.
81400709	CR5S40XLAN00	NetEngine40E VxLAN Function License	(Optional) one for each chassis.
81400712	CR5S40GMLS00	NetEngine40E GMPLS UNI Function License	(Optional) one for each chassis.

**Table 44.** NE40E Series Routers V600R008 Software Configuration List

BOM Number	Order Name	Description	Remarks
88032HBE	CR5S40BS6800	NetEngine40E&80E SW,VRP5,V600R008 Base	Required at new sites.

81400370	CR5S40BRAS02	NetEngine40E&80E PPPoE/IPoE Function License	(Optional) one for each chassis.
81400475	CR5S400EPT00	NetEngine40E&80E Ethernet Performance Test License	(Optional) one for each chassis.
81400189	CR5S40CLCK00	NetEngine40E&80E 1588v2 Function License	(Optional) LPUF-40/LPUF-50: one for each chassis. Other boards: one for each board.
81400135	SWP-CR53LICV3R3Update	NetEngine80E/40E V3R3 Update	Version upgrade fees. One for each chassis.
88030BUW	CR5S40EF0000	NetEngine40E&80E Rn To R(n+1) Software Enhanced Fee	Version upgrade fees. One for each chassis.
81400208	CR5S40MHAG00	NetEngine40E&80E Cross-chassis HAG Function License	(Optional) one for each chassis.
81400279	CR5S400DAA00	NetEngine40E&80E DAA Function License	(Optional) one for each chassis.
81400210	CR5S40L2TP00	NetEngine40E&80E L2TP Function License	(Optional) one for each chassis. This license controls the LNS function.

BOM Number	Order Name	Description	Remarks
81400285	CR5S400MDI00	NetEngine40E&80E Video Monitoring Function License	(Optional) one for each chassis.
82400206	CR5S40QS0100	NetEngine40E&80E Subscribers Quantity(1k Subscribers)	(Optional) You can configure one or more licenses, which are shared by all boards on one chassis.
82400313	CR5S40L3VN01	NetEngine40E L3VPN Function License for LPUF-51-B	(Optional) one for each board.
82400314	CR5S40L3VN02	NetEngine40E L3VPN Function License for LPUI-51-B	(Optional) one for each board.
82400380	CR5S40L3VN05	NetEngine40E L3VPN Function License for LPUI-240-B	(Optional) one for each board.
82400381	CR5S40L3VN06	NetEngine40E L3VPN Function License for LPUF-240-B	(Optional) one for each board.



82400378	CR5S40L3VN07	NetEngine40E L3VPN Function License for LPUI-120-B	(Optional) one for each board.
82400379	CR5S40L3VN08	NetEngine40E L3VPN Function License for LPUF-120-B	(Optional) one for each board.
82400317	CR5S40CLCK01	NetEngine40E 1588v2 Function License for 51 Series Units	(Optional) one for each board.
82400318	CR5S40CLCK04	NetEngine40E 1588v2 Function License for 101 Series Units	(Optional) one for each board.
82400404	CR5S40CLCK03	NetEngine40E 1588v2 Function License for 120 Series Units	(Optional) one for each board.
82400405	CR5S40CLCK05	NetEngine40E 1588v2 Function License for 240 Series Units	(Optional) one for each board.
82400631	CR5S400FPM02	NetEngine40E IP Performance Measure License (IP FPM) for 50G Series Units	(Optional) one for each board.
82400632	CR5S400FPM03	NetEngine40E IP Performance Measure License (IP FPM) for 100G Series Units	(Optional) one for each board.
82400633	CR5S400FPM04	NetEngine40E IP Performance Measure License (IP FPM) for 200G Series Units	(Optional) one for each board.
81400554	CR5SRADPXY00	NetEngine40E Radius-proxy Function License	(Optional) one for each chassis.
82400240	CR5S40NATS00	NetEngine40E&80E 2M NAT Session License	(Optional) one for each chassis.
81400588	CR5S40WIFI00	NetEngine40E Wifi Gateway Enhance Function License	(Optional) one for each chassis.
88032PGT	CR5S40SGTN04	NetEngine40E SoftGRE 4k Tunnel License	(Optional) one for each chassis.
81400661	CR5S40SNCF00	NetEngine40E SNC Function Management License	(Optional) one for each chassis.
82400666	CR5S40NEMA00	NetEngine40E Network Element Management License for 100 AtomEngines	(Optional) one for each chassis.
82400667	CR5S40TFMA00	NetEngine40E TWAMP Function Management License for 100 AtomEngines	(Optional) one for each chassis.
81400662	CR5S40RFMA00	NetEngine40E RFC2544 Function Management License for AtomEngines	(Optional) one for each chassis.

82400668	CR5S40FFMA00	NetEngine40E IP FPM Function Management License for 100 AtomEngines	(Optional) one for each chassis.
----------	--------------	---	----------------------------------

## Documents

**Table 45.** Documents for NE40E Series ("●" indicates "support", and "-" indicates "not support")

BOM Number	Order Name	Description	V600R008			V800R008				
			X3	X8	X16	X3A	X8	X8A	X16	X16A
31189120	CR5I88DOCE10	HUAWEI NetEngine40E Universal Service Router Product Documentation	●	●	●	-	-	-	-	-
31187785	CR5I68DOCE10	HUAWEI NetEngine40E&80E Router Product Documentation	-	-	-	●	●	●	●	●

## Software Upgrade Paths

Visit [Software Upgrade Paths](#) to get VRP software release version or patches.

## For More Information

For more information about the Huawei NE40E 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](mailto:support_e@huawei.com)

**Copyright © Huawei Technologies Co., Ltd. 2017. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

## Trademark Notice



**HUAWEI** and  are trademarks or registered trademarks of Huawei Technologies Co., Ltd.

Other trademarks, product, service and company names mentioned are the property of their respective owners.

## General Disclaimer

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc.

There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. Huawei may change the information at any time without notice.

## HUAWEI TECHNOLOGIES CO., LTD.

Huawei Industrial Base  
Bantian, Longgang  
Shenzhen 518129, P.R. China  
Tel: +86-755-28780808

[www.huawei.com](http://www.huawei.com)