

# NE08E&NE05E Series Mid-range Service Routers



## Product Overview

Huawei ® NetEngine 08E / NetEngine 05E (NE08E&NE05E in short) Series router is the cloud era ENP Based Mid Services Router, which is to help transportation, finance, power, government, education, enterprise to build agile networks, can be flexibly applied to IP / MPLS network edge access scenarios, to meet the diverse needs of users for future business development.

The NE08E&NE05E Series Routers have the following features:

- Small size, big bandwidth; support for -40°C to 65°C working temperature range, suitable for difficult environments.
- Cloud service architecture design oriented, large cache to ensure the best service experience; IP pipeline firmness and flexibility, support IP soft pipes for statistical multiplexing to improve resource efficiency and IP hard pipe exclusive resources to ensure the best customer experience. Large buffers, fast error detection and recovery, and use of IP hard pipes technology ensure smooth service experience
- Innovative ATOM GPS time synchronization solution and built-in PCM card simplify deployment and maintenance
- Visual interfaces enable one-click service provisioning, real-time service quality and performance monitoring, and custom service reports
- SDN architecture, VRP software, and Huawei's proprietary ENP chips provide agile networking for quickly adapting to new services and user requirements

As shown in Figure 1, the NE08E&NE05E Series routers contain NE08E-S6, NE05E-S2, NE05E-SE, NE05E-SF, NE05E-SG, NE05E-SH, NE05E-SI, NE05E-SN, NE05E-SJ, NE05E-SK, NE05E-SL and NE05E- SM.

Figure 1 Huawei NE08E&NE05E Series Routers



NE08E-S6E



NE05E-SQ



NE08E-S6



NE05E-S2



NE05E-SE



NE05E-SF



NE05E-SG



NE05E-SH



NE05E-SI



NE05E-SN



NE05E-SJ



NE05E-SK



NE05E-SL



NE05E-SM

## Product Features

Table 1 lists the features of the Huawei NE08E&NE05E Series Routers.

Table 1. Features of Huawei NE08E&NE05E Series Routers

| Features  | Description   |
|---|---|
| <b>Powerful Service Support</b>                   |   |
| Comprehensive access and aggregation capabilities | The NE08E&NE05E series routers support various interface types (E1, POS, CPOS, GE, 10GE, etc.) and high-density fixed ports to provide access and aggregation WAN services.   |
| Comprehensive clock synchronization solution      | The NE08E&NE05E series routers support 1588v2, 1588ACR, E1 line clock, Synchronous Ethernet.  |
| Covering the whole scene                          | The NE08E&NE05E series routers support various last-mile scenarios and one-stop coverage for various services.  |
| HQoS support                                      | The NE08E&NE05E series routers support precise scheduling based on traffic, services, and interfaces.   |
| <b>High Availability</b>                          |   |
| Equipment-level reliability                       | The NE08E&NE05E series routers provide redundancy backup for key components. These key components support hot swap and hot backup. The NE08E&NE05E series also use technologies, such as Non-Stop Routing (NSR), Non-Stop Forwarding (NSF), and In-Service Software Upgrade (ISSU), to ensure uninterrupted service forwarding. |

| Features  | Description   |
|---|---|
| Network-level reliability                           | The NEo8E&NEo5E series routers use the following technologies to provide network-level reliability: IP fast reroute (FRR), Label Distribution Protocol (LDP) FRR, VPN FRR, TE FRR, hot standby, fast convergence of Interior Gateway Protocols (IGP), BGP, and multicast routes, Virtual Router Redundancy Protocol (VRRP), trunk load balancing and backup, hardware-based Bidirectional Forwarding Detection (BFD) of 3.3 ms, MPLS OAM, and Ethernet OAM. The NEo8E&NEo5E series routers provide an end-to-end protection switching speed of 200 ms with no service interruption. |
| Service-level reliability                           | The NEo8E&NEo5E series routers use the following technologies to provide service-level reliability for L2VPNs and L3VPNs: VPN FRR, E-VRRP, VLL FRR, Ethernet OAM, and PW redundancy. These technologies ensure stable and reliable service operation with no service interruption.  |
| Overall reliability                                 | The NEo8E&NEo5E series routers support hardware-based OAM packet forwarding, with packets being sent at an interval of 3.3 ms, to ensure rapid traffic switching within 50 ms. Bit-error-triggered protection switching with accuracy up to $10^{-6}$ is supported.   |
| <b>Flexible and Scalable, Investment Protection</b> |   |
| IP pipeline firmness and flexibility                | The NEo8E&NEo5E series routers support IP soft pipes for statistical multiplexing to improve resource efficiency and IP hard pipes for resources exclusive.   |
| Self-developed chips, service demand and dynamic    | The NEo8E&NEo5E series routers use self-developed ENP chip, with its flexible and programmable architecture, enabling customers to build flexible and scalable networks.  |
| Future-oriented                                     | The NEo8E&NEo5E series routers use universal boards to support future network-oriented SDN architecture and smooth SDN evolution.   |
| <b>Powerful Operation and Maintenance Ability</b>   |   |
| Hardware-based OAM                                  | The NEo8E&NEo5E series routers support hardware-based OAM packet forwarding, with packets being sent at an interval of 3.3 ms, ensuring rapid traffic switching within 50 ms  |
| Remote virtualization                               | The NEo8E/NEo5E can be virtualized as the remote boards at the aggregation layer for centralized management. This simplifies the network and improves operation and maintenance.  |
| All in one PCM                                      | Built-in PCM technology enables direct access to a variety of low-speed services, simplifying network and unifying operation and maintenance.   |
| Service SLA   | The NEo8E&NEo5E series routers support IP FPM, which can perform high-precision network throughput and delay measurement between multiple devices with accuracy of $10^{-6}$ .<br>Y.1731, Y.1564, and RFC 2544 are also supported to provide instrument-free network performance self-test capability.  |
| Simple operation and maintenance                    | The NEo8E&NEo5E series routers support plug and play and batch delivery of user configurations and one-click service deployment and troubleshooting.  |
| <b>Less Investment</b>                              |   |
| Leading industrial design, green concept            | Low power, green energy, low carbon and environmental protection.   |
| Reducing installation space                         | The NEo8E&NEo5E Series Routers are only 180mm or 220 mm deep and the lowest one is only 1 U height, reducing the required installation space.   |

| Features                      | Description  |
|-------------------------------|--|
| Wide temperature range design | The NE08E&NE05E can be used when the ambient temperature is between -40°C and +65°C, applicable to outdoor deployment. |

## Usage Scenarios

NE08E&NE05E device is generally located at the intersection between an enterprise's internal network and an external network. An NE08E&NE05E device is the only entrance and exit of data flows between the internal and external networks. An NE08E&NE05E device can bear multiple types of services, greatly reducing network construction investment and long-term operation and maintenance costs of an enterprise network.

Table 2. Typical Usage Scenarios of Huawei NE08E&NE05E Series Routers

| Usage Scenarios                 | Product Features  |
|---------------------------------|---|
| Enterprise/Campus egress        | The NE08E&NE05E series can be used as egresses on large networks and provide powerful route forwarding capabilities.  |
| Power network                   | The NE08E&NE05E series routers are deployed between the power plant and IP converging routers and are used to implement data access functions, part of Huawei's ALL IP solution, for scheduling and information management of the power plant. The NE08E & NE05E series routers provide IP hard pipe technology to bear power relay protection and ensure security and reliability of key services. |
| Transportation industry network | The NE08E&NE05E series routers apply to railway GSM-R/LTE bearing for access of wireless signal network backhaul. The NE08E&NE05E series routers provide EN50121-4-compliant industry design and reliability and can be commonly used in the transportation industry.   |
| Urban metro                     | The NE08E&NE05E series routers apply to urban metro, and ATOM GPS + 1588V2 can be used for LTE-M clock backhaul to resolve the underground clock backhaul problem.  |
| Highway networks                | The NE08E&NE05E series routers apply to highway bearer networks, support IP65 outdoor protection, and provide POE + power supply capability.  |
| Small ISP                       | The NE08E&NE05E series routers apply to traditional wireless backhaul scenarios and provide leased lines and powerful forwarding capabilities for customers.  |
| Urban safety                    | The NE08E&NE05E series routers apply to city-wide surveillance camera systems support IP65 outdoor protection and provide POE + power supply capability.  |

## Product Specifications

Table 3 lists the specifications of Huawei NE08E&NE05E Series Routers.

Table 3. Specifications of NE08E-S6E / NE08E-S6 / NE05E-S2

| Item                                | NE08E-S6E   | NE08E-S6<br>(Basic System)                         | NE08E-S6<br>(Clock-Enhanced System)                       | NE05E-S2   |
|-------------------------------------|---|--|---|--|
| Switching capacity (IPv4/IPv6)      | 320 Gbps (160 Gbps upstream, 160 Gbps downstream)           | 88 Gbps (44 Gbps upstream, 44 Gbps downstream)     | 112 Gbps (56 Gbps upstream, 56 Gbps downstream)           | 24 Gbps (12 Gbps upstream, 12 Gbps downstream)               |
| Forwarding performance (IMIX)       | 102 Mpps  | 37.162 Mpps  | 47.297 Mpps   | 17.875 Mpps  |
| MTBF (year)                         | 40  | 40   | 40  | 40   |
| MTTR (hour)                         | 2   | 2  | 2   | 2  |
| System reliability                  | 0.99999   | 0.99999  | 0.99999   | 0.99999  |
| Clock synchronization               | 1588v2, 1588 ACR, E1 line clock, Ethernet synchronization   | 1588v2, E1 line clock, Ethernet synchronization    | 1588v2, 1588 ACR, E1 line clock, Ethernet synchronization | 1588v2, 1588 ACR, E1/T1 line clock, Ethernet synchronization |
| Total swappable slots               | 11  | 11   | 11  | 6  |
| Swappable slots for interface board | 6   | 6  | 6   | 2  |
| Control board support               | 2 control boards, backup for each other                     | 2 control boards, backup for each other            | 2 control boards, backup for each other                   | 1 control board  |
| Power support                       | 2 power boards, backup for each other                       | 2 power boards, backup for each other              | 2 power boards, backup for each other                     | 1 power board, 2 DC power-input                              |
| Fan support                         | 1 fan board, 6 fans inside                                  | 1 fan board, 6 fans inside                         | 1 fan board, 6 fans inside                                | 1 fan board, 3 fans inside                                   |
| Fixed interfaces for service        | None  | None   | None  | None   |
| Cabinet installation standard       | IEC60297, ETSI300-119, IEC60297 (23-inch)                   | IEC60297, ETSI300-119, IEC60297 (23-inch)          | IEC60297, ETSI300-119, IEC60297 (23-inch)                 | IEC60297, ETSI300-119, IEC60297 (23-inch)                    |
| Airflow                             | Left to right   | Left to right                                      | Left to right   | Left to right  |
| SDRAM                               | 4096 MByte  | 1 GByte  | 1 GByte   | 1 GByte  |
| Flash                               | 64 Mbyte  | 128 MByte  | 128 MByte   | 128 MByte  |
| CF card                             | 2048 Mbyte (virtual CF card and cannot be replaced) (Note1) | 512 Mbyte (virtual CF card and cannot be replaced) | 512 Mbyte (virtual CF card and cannot be replaced)        | 512 Mbyte (replacable)                                       |

| Item  | NE08E-S6E  | NE08E-S6<br>(Basic System)   | NE08E-S6<br>(Clock-Enhanced System)   | NE05E-S2  |
|---|--|--|---|---|
| Power consumption (maximum in full configuration) | 172 W  | 181 W  | 181 W   | 68 W  |
| Heat dissipation                                  | 558.040 BTU/hour   | 587.240 BTU/hour   | 587.240 BTU/hour  | 220.620 BTU/hour  |
| Built-in power                                    | Dual-DC  | Dual-DC or Dual-AC   | Dual-DC or Dual-AC  | Dual-DC   |
| Power input                                       | DC: -38.4 to -72.0 V (-48V/-60V rated)   | DC: -38.4 to -72.0 V (-48V/-60V rated)<br>AC: 100 to 240V (110V/220V rated)  | DC: -38.4 to -72.0 V (-48V/-60V rated)<br>AC: 100 to 240V (110V/220V rated)   | DC: -38.4 to -72.0 V (-48V/-60V rated)  |
| External AC power                                 | Supported  | Supported  | Supported   | Supported   |
| External AC power adapter                         | Not supported  | Not supported  | Not supported   | Supported   |
| Physical dimensions (Note 2)                      | Height: 88.9 mm (3.50 in.) (2U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220 mm (8.66 in.)   | Height: 88.9 mm (2U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220 mm (8.66 in.)  | Height: 88.9 mm (2U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220 mm (8.66 in.)   | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220 mm (8.66 in.) |
| Weight (in empty configuration)                   | 2.80 kg (6.17 lb)  | 2.80 kg (6.17 lb)  | 2.80 kg (6.17 lb)   | 2.36 kg (5.20 lb)   |
| Weight (in full configuration)                    | 8.42 kg (18.56 lb)   | 8.42 kg (18.56 lb)   | 8.42 kg (18.56 lb)  | 4.8 kg (10.58 lb)   |
| Operating environment (Note 3)                    | Temperature  | -40 to +65°C (-40 to 149°F)  | -40 to +65°C (-40 to 149°F)   | -40 to +65°C (-40 to 149°F)   |
|   | Humidity   | 5% to 95% RH   | 5% to 95% RH  | 5% to 95% RH  |
|   | Altitude   | ≤4000 m (13123.4 feet). If the altitude is between 1800 meters (5905.44 feet) and 4000 meters, the operating temperature of the device must decrease by 1 °C (1.8 °F) for every 220 meters (721.78 feet) increase in altitude. |   |   |
| Storage environment (Note 3)                      | Temperature  | -40 to 70°C (-40 to 158 °F)  | -40 to 70°C (-40 to 158 °F)   | -40 to 70°C (-40 to 158 °F)   |
|   | Humidity   | 5% to 100%   | 5% to 100%  | 5% to 100%  |
|   | Altitude   | ≤5000 m  | ≤5000 m   | ≤5000 m   |
| Regulatory compliance                             | <b>EMC</b> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• EN 55022 Class A</li> <li>• AS/NZS CISPR22 Class A</li> </ul> | <b>EMC</b> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• EN 55022 Class A</li> <li>• AS/NZS CISPR22 Class A</li> <li>• FCC Part 15 Subpart B Class A</li> </ul>  | <b>EMC</b> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• CISPR24</li> <li>• EN 55022 Class A</li> <li>• EN 50024</li> </ul> |   |

| Item | NE08E-S6E   | NE08E-S6<br>(Basic System)   | NE08E-S6<br>(Clock-Enhanced System) | NE05E-S2  |
|------|---|--|-------------------------------------|---|
|      | <ul style="list-style-type: none"> <li>• FCC Part 15 Subpart B Class A</li> <li>• ICES 003 Class A</li> <li>• VCCI V-3 Class A</li> <li>• VCCI V-4</li> <li>• IEC 61000-4-2</li> <li>• EN 61000-4-2</li> <li>• IEC 61000-4-3</li> <li>• EN 61000-4-3</li> <li>• IEC 61000-4-4</li> <li>• EN61000-4-4</li> <li>• IEC 61000-4-5</li> <li>• EN 61000-4-5</li> <li>• IEC 61000-4-6</li> <li>• EN 61000-4-6</li> <li>• IEC 61000-4-29</li> <li>• EN 61000-4-29</li> <li>• IEC 61000-6-4 Class A</li> <li>• EN 61000-6-4 Class A</li> <li>• CISPR24</li> <li>• EN 55024</li> <li>• ETSI EN 300 386</li> <li>• EN 61000-6-2</li> <li>• IEC 61000-6-2</li> <li>• EN 50121-4</li> <li>• EN 50155</li> <li>• EN 50121-3-2</li> <li>• IEEE 1613</li> <li>• IEC 61850-3</li> <li>• IEC/TS 61000-6-5</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> </ul> | <ul style="list-style-type: none"> <li>• ICES 003 Class A</li> <li>• VCCI V-3 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> </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>• FDA rules, 21 CFR 1040.10 and 1040.11</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> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>• RoHS</li> <li>• REACH</li> <li>• WEEE</li> </ul> |                                     | <ul style="list-style-type: none"> <li>• ETSI EN 300 386 Class A</li> <li>• ETSI ES 201 468</li> <li>• CFR 47 FCC Part 15 Class A</li> <li>• ICES 003 Class A</li> <li>• AS/NZS CISPR22 Class A</li> <li>• GB 9254 Class A</li> <li>• VCCI Class A</li> <li>• CNS 13438 Class A</li> <li>• IEC 61000-3-2/3</li> <li>• EN 61000-3-2/3</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• IEC 60950-1</li> <li>• IEC/EN 41003</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>• BS EN 60950-1</li> <li>• IS 13252</li> <li>• GB 4943</li> <li>• FDA rules, 21 CFR 1040.10 and 1040.11</li> <li>• IEC60825-1, IEC60825-2, EN60825-1, EN60825-2</li> <li>• GB 7247</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> <p><b>Environmental protection</b></p> |

| Item | NE08E-S6E   | NE08E-S6<br>(Basic System) | NE08E-S6<br>(Clock-Enhanced System) | NE05E-S2  |
|------|---|----------------------------|-------------------------------------|---|
|      | <ul style="list-style-type: none"> <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> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>RoHS</li> <li>REACH</li> <li>WEEE</li> </ul> |                            |                                     | <ul style="list-style-type: none"> <li>RoHS</li> <li>REACH</li> <li>WEEE</li> </ul> |

**NOTE**

Note1: There are two CF cards are equipped on an NE08E-S6E device. One is the active CF card, and the other is standby CF card, each of which has a capacity of 1024 MB. The slave CF card can only back up the system software, patch, PAF, and configuration files. When the startup system-software, startup patch, startup patch or start save-configuration command is run to specify a file to be loaded at a next startup, the file path cannot be set to the slave CF card.

Note 2: In the physical dimensions shown in the table, the width (W) does not include the rack-mounting ears.

Note 3: Temperature and humidity are measured at 1.5 m (4.92 feet.) above the floor and 0.4 m (1.31 feet.) in front of the cabinet. There should be no protection board on the front or back of the cabinet.

Table 4. Specifications of NE05E-SQ / NE05E-SE / NE05E-SF

| Item                           | NE05E-SQ  | NE05E-SE                                       | NE05E-SF                                       |
|--------------------------------|---|--|--|
| Switching capacity (IPv4/IPv6) | 272G bps (136G bps upstream, 136G bps downstream) | 88G bps (44G bps upstream, 44G bps downstream) | 72G bps (36G bps upstream, 36G bps downstream) |
| Forwarding performance (IMIX)  | 102 Mpps  | 37.2 Mpps                                      | 30.4 Mpps                                      |
| MTBF (year)                    | 40  | 40   | 40   |
| MTTR (hour)                    | 2   | 2  | 2  |
| System reliability             | 0.99999   | 0.99999  | 0.99999  |



| Item  | NE05E-SQ   | NE05E-SE  | NE05E-SF  |
|---|--|---|---|
| Clock synchronization                             | 1588v2, 1588 ACR, and Ethernet synchronization   | 1588v2 and Ethernet synchronization   | 1588v2, 1588 ACR, E1 line clock, Ethernet synchronization                               |
| Number of swappable slots                         | 2 Power board slots  | No swappable slot   | No swappable slot   |
| Service interface                                 | 4*10GE(o),<br>8*10GE/GE/FE(o),<br>8*GE/FE(o),<br>8*GE/FE(e)  | 2*10GE(XFP),<br>16*GE/FE(o),<br>8*GE/FE(e)  | 8*GE/FE(o),<br>8*GE/FE(e),<br>16*E1   |
| Cabinet installation standard                     | IEC60297, ETSI300-119, IEC60297 (23-inch)  | IEC60297, ETSI300-119, IEC60297 (23-inch)   | IEC60297, ETSI300-119, IEC60297 (23-inch)   |
| Airflow   | Left to right  | Left to right   | Left to right   |
| SDRAM   | 4096 MByte   | 1 GByte   | 1 GByte   |
| Flash   | 64 MByte   | 128 MByte   | 128 MByte   |
| CF card   | 2048 MByte (virtual CF card and cannot be replaced) (Note1)  | 512 Mbyte (virtual CF card and cannot be replaced)                                      | 512 Mbyte (virtual CF card and cannot be replaced)                                      |
| Power consumption (maximum in full configuration) | Dual-DC: 89.0 W (-48V)<br>Dual-AC: 91.4 W (220V)<br>Dual-AC: 94.6 W (110V)                               | 51.43 W   | 54.47 W   |
| Heat dissipation                                  | Dual-DC: 288.753 BTU/hour (-48V)<br>Dual-AC: 296.540 BTU/hour (220V)<br>Dual-AC: 306.922 BTU/hour (110V) | 166.861 BTU/hour  | 176.724 BTU/hour  |
| Built-in power                                    | Dual-DC or Dual-AC   | Dual-DC   | Dual-DC   |
| Power input                                       | DC:-38.4 to -72.0 V (-48V/-60V rated)<br>AC: 100 to 240V (110V/220V rated)                               | DC:-38.4 to -72.0 V (-48V/-60V rated)<br>AC adapter: 100 to 240V                        | DC:-38.4 to -72.0 V (-48V/-60V rated)<br>AC adapter: 100 to 240V                        |
| External AC power                                 | Not supported  | Supported   | Supported   |
| External AC power adapter                         | Not supported  | Supported   | Supported   |
| Physical dimensions (Note 2)                      | Height: 44.45mm (1.75 in.) (1U)<br>Width: 442mm (17.40 in.)<br>Depth: 220mm (8.66 in.)                   | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442mm (17.40 in.)<br>Depth: 220mm (8.66 in.) | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442mm (17.40 in.)<br>Depth: 220mm (8.66 in.) |
| Weight  | DC: 4.7kg (10.36 lb)<br>AC: 4.9kg (10.80 lb)   | 3.6 kg (7.94 lb)  | 3.6 kg (7.94 lb)  |

| Item                           |             | NE05E-SQ  | NE05E-SE   | NE05E-SF                    |
|--------------------------------|-------------|---|--|-----------------------------|
| Operating environment (Note 3) | Temperature | DC: -40 to 65°C (-40 to 149°F)<br>AC: -20 to 65°C (-4 to 149°F)   | -40 to +65°C (-40 to 149°F)  | -40 to +65°C (-40 to 149°F) |
|                                | Humidity    | 5% to 95% RH  | 5% to 95% RH   | 5% to 95% RH                |
|                                | Altitude    | ≤4000 m (13123.4 feet). If the altitude is between 1800 meters (5905.44 feet) and 4000 meters, the operating temperature of the device must decrease by 1 °C (1.8 °F) for every 220 meters (721.78 feet) increase in altitude.  |  |                             |
| Storage environment (Note 3)   | Temperature | -40 to 70°C (-40 to 158°F)  | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)  |
|                                | Humidity    | 5% to 100%  | 5% to 100%   | 5% to 100%                  |
|                                | Altitude    | ≤5000 m   | ≤5000 m  | ≤5000 m                     |
| Regulatory compliance          |             | <b>EMC</b> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• EN 55022 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 V-3 Class A</li> <li>• VCCI V-4</li> <li>• IEC 61000-4-2</li> <li>• EN 61000-4-2</li> <li>• IEC 61000-4-3</li> <li>• EN 61000-4-3</li> <li>• IEC 61000-4-4</li> <li>• EN61000-4-4</li> <li>• IEC 61000-4-5</li> <li>• EN 61000-4-5</li> <li>• IEC 61000-4-6</li> <li>• EN 61000-4-6</li> <li>• IEC 61000-4-29</li> <li>• EN 61000-4-29</li> <li>• IEC 61000-3-2</li> <li>• EN 61000-3-2</li> <li>• IEC 61000-3-3</li> <li>• EN 61000-3-3;</li> <li>• IEC 61000-6-4 Class A</li> <li>• EN 61000-6-4 Class A</li> <li>• CISPR24</li> </ul> | <b>EMC</b> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• CISPR24</li> <li>• EN 55022 Class A</li> <li>• EN 50024</li> <li>• ETSI EN 300 386 Class A</li> <li>• ETSI ES 201 468</li> <li>• CFR 47 FCC Part 15 Class A</li> <li>• ICES 003 Class A</li> <li>• AS/NZS CISPR22 Class A</li> <li>• GB9254 Class A</li> <li>• VCCI Class A</li> <li>• CNS 13438 Class A</li> <li>• IEC 61000-3-2/3</li> <li>• EN 61000-3-2/3</li> </ul> <b>Safety</b> <ul style="list-style-type: none"> <li>• IEC 60950-1</li> <li>• IEC/EN 41003</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>• BS EN 60950-1</li> <li>• IS 13252</li> <li>• GB 4943</li> <li>• FDA rules, 21 CFR 1040.10 and 1040.11</li> <li>• IEC 60825-1, IEC 60825-2, EN 60825-1, EN 60825-2</li> </ul> |                             |

| Item | NE05E-SQ   | NE05E-SE   | NE05E-SF |
|------|--|--|----------|
|      | <ul style="list-style-type: none"> <li>• EN 55024</li> <li>• ETSI EN 300 386</li> <li>• EN 61000-6-2</li> <li>• IEC 61000-6-2</li> <li>• EN 50121-4</li> <li>• EN 50155</li> <li>• EN 50121-3-2</li> <li>• IEEE 1613</li> <li>• IEC 61850-3</li> <li>• IEC/TS 61000-6-5</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> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>• RoHS</li> <li>• REACH</li> <li>• WEEE</li> </ul> | <ul style="list-style-type: none"> <li>• GB 7247</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> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>• RoHS</li> <li>• REACH</li> <li>• WEEE</li> </ul> |          |

**NOTE**

Note1: There are two CF cards are equipped on an NE05E-SQ device. One is the active CF card, and the other is standby CF card, each of which has a capacity of 1024 MB. The slave CF card can only back up the system software, patch, PAF, and configuration files. When the startup system-software, startup patch, startup patch or start save-configuration command is run to specify a file to be loaded at a next startup, the file path cannot be set to the slave CF card.

Note 2: In the physical dimensions shown in the table, the width (W) does not include the rack-mounting ears.

Note 3: Temperature and humidity are measured at 1.5 m (4.92 feet.) above the floor and 0.4 m (1.31 feet.) in front of the cabinet. There should be no protection board on the front or back of the cabinet.

Table 5. Specifications of NE05E-SG / NE05E-SH / NE05E-SI / NE05E-SN

| Item  | NE05E-SG   | NE05E-SH   | NE05E-SI   | NE05E-SN   |
|---|--|--|--|--|
| Switching capacity (IPv4/IPv6)                    | 24 Gbps (12 Gbps upstream, 12 Gbps downstream)     | 24 Gbps (12 Gbps upstream, 12 Gbps downstream)     | 24 Gbps (12 Gbps upstream, 12 Gbps downstream)             | 24 Gbps (12 Gbps upstream, 12 Gbps downstream)     |
| Forwarding performance (IMIX)                     | 10.135 Mpps  | 10.135 Mpps  | 17.857 Mpps  | 17.856Mpps   |
| MTBF (year)                                       | 40   | 40   | 40   | 40   |
| MTRR (hour)                                       | 2  | 2  | 2  | 2  |
| System reliability                                | 0.99999  | 0.99999  | 0.99999  | 0.99999  |
| Clock synchronization                             | 1588v2 and Ethernet synchronization                | 1588v2 and Ethernet synchronization                | 1588v2 and Ethernet synchronization                        | 1588v2 and Ethernet synchronization                |
| Number of swappable slots                         | No swappable slot                                  | No swappable slot                                  | No swappable slot  | No swappable slot                                  |
| Service interface (Note 1,2)                      | 4*GE(o),<br>4*GE/FE(e),<br>4*GE/FE Combo           | 4*GE(o),<br>4*GE/FE(e),<br>4*GE/FE Combo,<br>16*E1 | 4*GE(o),<br>4*GE/FE(o),<br>4*GE/FE(e) with PoE+            | 4*GE(o),<br>4*GE/FE(e),<br>4*GE/FE Combo,<br>16*E1 |
| Cabinet installation standard                     | IEC60297,<br>ETSI300-119,<br>IEC60297 (23-inch)    | IEC60297,<br>ETSI300-119,<br>IEC60297 (23-inch)    | IEC60297,<br>ETSI300-119,<br>IEC60297 (23-inch)            | IEC60297,<br>ETSI300-119,<br>IEC60297 (23-inch)    |
| Airflow   | Natural heat dissipation                           | Natural heat dissipation                           | Left to right  | Natural heat dissipation                           |
| SDRAM   | 1 GByte  | 1 GByte  | 512 MByte  | 1 GByte  |
| Flash   | 128 MByte  | 128 MByte  | 128 MByte  | 128 MByte  |
| CF card   | 512 MByte (virtual CF card and cannot be replaced) | 512 MByte (virtual CF card and cannot be replaced) | 128 MByte (virtual CF card and cannot be replaced)         | 512 MByte (virtual CF card and cannot be replaced) |
| Power consumption (maximum in full configuration) | 25.76 W  | 30.55 W  | 33.33 W  | 29.5 W   |
| Heat dissipation                                  | 83.576 BTU/hour                                    | 99.117 BTU/hour                                    | 108.137 BTU/hour   | 95.710 BTU/hour                                    |
| Built-in power                                    | Dual-DC  | Dual-DC  | Single-AC  | Dual-AC  |
| Power input                                       | DC: -38.4 to -72.0V (-48V/-60V rated)              | DC: -38.4 to -72.0V (-48V/-60V rated)              | AC: 100 to 240V (110V/220V rated)<br>Supports 4 POE output | AC: 100 to 240V (110V/220V rated)                  |
| External AC power                                 | Supported  | Supported  | Not supported  | Not supported                                      |
| External AC power adapter                         | Supported  | Supported  | Not supported  | Not supported                                      |

| Item                           |             | NE05E-SG  | NE05E-SH   | NE05E-SI   | NE05E-SN   |
|--------------------------------|-------------|---|--|--|--|
| Physical dimensions (Note 3)   |             | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220mm (8.66 in.)  | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220mm (8.66 in.) | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220mm (8.66 in.) | Height: 44.45 mm (1.75 in.) (1U)<br>Width: 442 mm (17.40 in.)<br>Depth: 220mm (8.66 in.) |
| Weight                         |             | 4 kg (8.8 lb)   | 4 kg (8.8 lb)  | 3 kg (6.61 lb)   | 5.1 kg (11.24 lb)  |
| Operating environment (Note 4) | Temperature | -40 to +65°C (-40 to 149°F)   | -40 to +65°C (-40 to 149°F)  | -20 to +60°C (-40 to 140 °F)   | -40 to +65°C (-40 to 149°F)  |
|                                | Humidity    | 5% RH to 95% RH   | 5% RH to 95% RH  | 5% RH to 95% RH  | 5% RH to 95% RH  |
|                                | Altitude    | ≤4000 m (13123.4 feet). If the altitude is between 1800 meters (5905.44 feet) and 4000 meters, the operating temperature of the device must decrease by 1 °C (1.8 °F) for every 220 meters (721.78 feet) increase in altitude.  |  |  |  |
| Storage environment (Note 4)   | Temperature | -40 to 70°C (-40 to 158°F)  | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)   |
|                                | Humidity    | 5% to 100%  | 5% to 100%   | 5% to 100%   | 5% to 100%   |
|                                | Altitude    | ≤5000 m   | ≤5000 m  | ≤5000 m  | ≤5000 m  |
| Regulatory compliance          |             | <p><b>EMC</b></p> <ul style="list-style-type: none"> <li>• CISPR22 Class A</li> <li>• CISPR24</li> <li>• EN 55022 Class A</li> <li>• EN 50024</li> <li>• ETSI EN 300 386 Class A</li> <li>• ETSI ES 201 468</li> <li>• CFR 47 FCC Part 15 Class A</li> <li>• ICES 003 Class A</li> <li>• AS/NZS CISPR22 Class A</li> <li>• GB9254 Class A</li> <li>• VCCI Class A</li> <li>• CNS 13438 Class A</li> <li>• IEC 61000-3-2/3</li> <li>• EN 61000-3-2/3</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• IEC 60950-1</li> <li>• IEC/EN 41003</li> <li>• EN 60950-1</li> <li>• UL 60950-1</li> <li>• CSA C22.2 No 60950-1</li> </ul> |  |  |  |

| Item | NE05E-SG  | NE05E-SH | NE05E-SI | NE05E-SN |
|------|---|----------|----------|----------|
|      | <ul style="list-style-type: none"> <li>• AS/NZS 60950.1</li> <li>• BS EN 60950-1</li> <li>• IS 13252</li> <li>• GB 4943</li> <li>• FDA rules, 21 CFR 1040.10 and 1040.11</li> <li>• IEC 60825-1, IEC 60825-2, EN 60825-1, EN 60825-2</li> <li>• GB 7247</li> </ul> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>• RoHS</li> <li>• REACH</li> <li>• WEEE</li> </ul> |          |          |          |

**NOTE**

Note 1: Combo interface includes one SFP interface and one electrical interface. The SFP and electrical interfaces cannot be used at the same time.

Note 2: In NE05E-SI, each FE/GE3 interface with PoE+ supports a maximum of 30 W output.

Note 3: In the physical dimensions shown in the table, the width (W) does not include the rack-mounting ears.

Note 4: Temperature and humidity are measured at 1.5 m (4.92 feet.) above the floor and 0.4 m (1.31 feet.) in front of the cabinet. There should be no protection board on the front or back of the cabinet.

Table 6. Specifications of NE05E-SJ / NE05E-SK / NE05E-SL / NE05E-SM

| Item                           | NE05E-SJ                                     | NE05E-SK                                     | NE05E-SL                                     | NE05E-SM  |
|--------------------------------|--|--|--|---|
| Switching capacity (IPv4/IPv6) | 12 Gbps (6 Gbps upstream, 6 Gbps downstream) | 12 Gbps (6 Gbps upstream, 6 Gbps downstream) | 12 Gbps (6 Gbps upstream, 6 Gbps downstream) | 8 Gbps (4 Gbps upstream, 4 Gbps downstream)                     |
| Forwarding performance (IMIX)  | 8.928 Mpps                                   | 8.928 Mpps                                   | 8.928 Mpps                                   | 5.952Mpps   |
| MTBF (year)                    | 40   | 40   | 40   | 40  |
| MTTR (hour)                    | 2  | 2  | 2  | 2   |
| System reliability             | 0.99999                                      | 0.99999                                      | 0.99999                                      | 0.99999   |
| Clock synchronization          | 1588v2 and Ethernet synchronization          | 1588v2 and Ethernet synchronization          | 1588v2 and Ethernet synchronization          | 1588v2 and Ethernet synchronization                             |
| Number of swappable slots      | No swappable slot                            | No swappable slot                            | No swappable slot                            | No swappable slot   |
| Service interface (Note 1,2)   | 2*GE/FE Combo,<br>2*GE/FE(o),<br>2*GE/FE(e)  | 2*GE/FE Combo,<br>2*GE/FE(o),<br>2*GE/FE(e)  | 2*GE/FE Combo,<br>2*GE/FE(o),<br>2*GE(o)     | 1*GE/FE(o),<br>1*GE/FE Combo with POE+,<br>2*GE/FE(e) with POE+ |

| Item  |             | NE05E-SJ   | NE05E-SK   | NE05E-SL   | NE05E-SM   |
|---|-------------|--|--|--|--|
| Cabinet installation standard                     |             | IEC60297, ETSI300-119, IEC60297 (23-inch)  | IEC60297, ETSI300-119, IEC60297 (23-inch)  | -  | -  |
| Airflow   |             | Natural heat dissipation   | Natural heat dissipation   | Natural heat dissipation   | Natural heat dissipation   |
| SDRAM   |             | 512 MByte  | 512 MByte  | 512 MByte  | 512 MByte  |
| Flash   |             | 128 MByte  | 128 MByte  | 128 MByte  | 128 MByte  |
| CF card   |             | 128 MByte (virtual CF card and cannot be replaced)   | 128 MByte (virtual CF card and cannot be replaced)                                 | 128 MByte (virtual CF card and cannot be replaced)                               | 128 MByte (virtual CF card and cannot be replaced)                               |
| Power consumption (maximum in full configuration) |             | 14.47 W  | 15.93 W  | 16.15 W  | 18.22 W( no PoE); 208.5 W(PoE full configuration)                                |
| Heat dissipation                                  |             | 46.947 BTU/hour  | 51.684 BTU/hour  | 52.397 BTU/hour  | 59.113 BTU/hour  |
| Built-in power                                    |             | Single-AC  | Single-DC  | Single-AC  | Single-AC  |
| Power input                                       |             | AC 100 to 240V (220V rated)  | -38.4 to -72V (-48V rated)   | AC 100 to 240V ( 220V rated)   | AC 100 to 240V (220V rated)<br>Supports 3 POEs output                            |
| External AC power                                 |             | Not supported  | Not supported  | Not supported  | Not supported  |
| External AC power adapter                         |             | Not supported  | Not supported  | Not supported  | Not supported  |
| Physical dimensions (Note 3)                      |             | Height: 43.6 mm (1.72 in.)<br>Width: 250 mm (9.84 in.)<br>Depth: 180mm (7.09 in.)  | Height: 43.6 mm (1.72 in.)<br>Width: 250 mm (9.84 in.)<br>Depth: 180 mm (7.09 in.) | Height: 52 mm (2.05 in.)<br>Width: 180 mm (7.09 in.)<br>Depth: 250 mm (9.84 in.) | Height: 52 mm (2.05 in.)<br>Width: 180 mm (7.09 in.)<br>Depth: 250 mm (9.84 in.) |
| Weight  |             | 1.8 kg (4.0 lb)  | 1.9 kg (4.2 lb)  | 2.7 kg (6.0 lb)  | 2.9 kg (6.4 lb)  |
| Operating environment (Note 4)                    | Temperature | -40 to +65°C   | -40 to +65°C   | -40 to +55°C (no Solar radiation)<br>-40 ~ +50°C (Solar radiation)               | -40 to +55°C (no Solar radiation)<br>-40 ~ +50°C (Solar radiation)               |
|   | Humidity    | 5% RH to 95% RH  | 5% RH to 95% RH  | 5% RH to 95% RH  | 5% RH to 95% RH  |
|   | Altitude    | ≤4000 m (13123.4 feet). If the altitude is between 1800 meters (5905.44 feet) and 4000 meters, the operating temperature of the device must decrease by 1 °C (1.8 °F) for every 220 meters (721.78 feet) increase in altitude. |  |  |  |
| Storage environment (Note 4)                      | Temperature | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)   | -40 to 70°C (-40 to 158°F)   |
|   | Humidity    | 5% to 100%   | 5% to 100%   | 5% to 100%   | 5% to 100%   |

| Item                  |          | NE05E-SJ  | NE05E-SK | NE05E-SL | NE05E-SM |
|-----------------------|----------|---|----------|----------|----------|
|                       | Altitude | ≤5000 m   | ≤5000 m  | ≤5000 m  | ≤5000 m  |
| Regulatory compliance |          | <p><b>EMC</b></p> <ul style="list-style-type: none"> <li>• CISPR22 Class B</li> <li>• CISPR24</li> <li>• EN 55022 Class B</li> <li>• EN 50024</li> <li>• ETSI EN 300 386 Class B</li> <li>• ETSI ES 201 468</li> <li>• ETSI EN 301 489 Class B</li> <li>• FCC Part 2</li> <li>• FCC Part 22</li> <li>• FCC Part 24</li> <li>• CES 003 Class B</li> <li>• AS/NZS CISPR22 Class B</li> <li>• GB9254 Class B</li> <li>• VCCI Class B</li> <li>• CNS 13438 Class B</li> <li>• IEC 61000-3-2/3</li> <li>• EN 61000-3-2/3</li> <li>• ITU-T K.20/44/45</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• IEC 60950-1</li> <li>• IEC/EN 41003</li> <li>• EN 60950-1</li> <li>• AS/NZS 60950.1</li> <li>• BS EN 60950-1</li> <li>• GB 4943</li> <li>• FDA rules, 21 CFR 1040.10 and 1040.11</li> <li>• IEC 60825-1, IEC 60825-2, EN 60825-1,</li> <li>• EN 60825-2</li> <li>• GB 7247</li> </ul> <p><b>Environmental protection</b></p> <ul style="list-style-type: none"> <li>• RoHS</li> <li>• REACH</li> <li>• WEEE</li> </ul> |          |          |          |

**NOTE**

Note 1: Combo interface includes one SFP interface and one electrical interface. The SFP and electrical interfaces cannot be used at the same time.



Note 2: NE05E-SM supports two GE/FE electrical interfaces with PoE+ (each supports a maximum of 150 W output) and one GE/FE Combo interface with POE+ (supports a maximum of 150 W output when it works in electrical mode), and the three interfaces support a maximum 210 W in total.

Note 3: In the physical dimensions shown in the table, the width (W) does not include the rack-mounting ears.

Note 4: Temperature and humidity are measured at 1.5 m (4.92 feet.) above the floor and 0.4 m (1.31 feet.) in front of the cabinet. There should be no protection board on the front or back of the cabinet.

## Ordering Information

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

### Basic Configuration Bundle

Table 7. NE08E-S6E Basic Configuration Bundle

| Order Name   | BOM Number | Description  | Remarks |
|--------------|------------|--|---------|
| NEDB00CASE00 | 02311NPF   | Assembly Chassis(-48V)   | -       |
| NEDD00CXPA00 | 03031YJP   | System Control,Cross-connect and Multi-protocol Process Unit A | -       |

Table 8. NE08E-S6 Basic Configuration Bundle

| Order Name   | BOM Number | Description   | Remarks |
|--------------|------------|---|---------|
| NEDMHOST1100 | 02311CMG   | NE08E-S6 Basic System,Double Control Boards,Double DC Powers          | -       |
| NEDMHOST1200 | 02311CMH   | NE08E-S6 Basic System,One Control Board,Double DC Powers              | -       |
| NEDMHOST1300 | 02311CMJ   | NE08E-S6 Clock Enhanced System,Double Control Boards,Double DC Powers | -       |
| NEDMHOST1400 | 02311CMK   | NE08E-S6 Clock Enhanced System,One Control Board,Double DC Powers     | -       |
| NEDMHOST1700 | 02311GVT   | NE08E-S6 Clock Enhanced System,Double Control Boards,Double AC Powers | -       |
| NEDMHOST1800 | 02311GVV   | NE08E-S6 Clock Enhanced System,One Control Board,Double AC Powers     | -       |
| NEDMHOST1600 | 02311GVS   | NE08E-S6 Basic System,One Control Board,Double AC Powers              | -       |
| NEDMHOST1500 | 02311GVR   | NE08E-S6 Basic System,Double Control Boards,Double AC Powers          | -       |

Table 9. NE05E-S2 Basic Configuration Bundle

| Order Name   | BOM Number | Description   | Remarks |
|--------------|------------|---|---------|
| NECM00HOST06 | 02311CML   | NE05E-S2 System,With 4 Channels GE/FE(Optical),4 Channels GE/FE(Electric) and 2 Channels GE(Optical ) | -       |

Table 10. NE05E-SQ Basic Configuration Bundle

| Order Name   | BOM Number | Description   | Remarks |
|--------------|------------|---|---------|
| NECMHSTA0200 | 02350WSF   | NE05E-SQ - 2 channels DC entries, with 4*10GE(o), 8*10GE/GE/FE(o), 8*GE/FE(o), 8*GE/FE(e) | -       |
| NECMHSTB0200 | 02350WSG   | NE05E-SQ - 2 channels AC entries, with 4*10GE(o), 8*10GE/GE/FE(o), 8*GE/FE(o), 8*GE/FE(e) | -       |

Table 11. NE05E-SE/SF Basic Configuration Bundle

| Order Name    | BOM Number | Description   | Remarks |
|---------------|------------|---|---------|
| NECM00HSDEN00 | 02350DYQ   | NE05E-SF 44G System,2*10GE(XFP),8*GE/FE(o),8*GE/FE(e),2*8E1 | -       |
| NECM00HSDN00  | 02350DYR   | NE05E-SE 44G System,2*10GE(XFP),16*GE/FE(o),8*GE/FE(e)      | -       |

Table 12. NE05E-SG/SH/SI/SN Basic Configuration Bundle

| Order Name    | BOM Number | Description   | Remarks |
|---------------|------------|---|---------|
| NECM000HSA00  | 02350DYT   | NE05E-SG 12G System,DC,4*GE(o),4*GE/FE(e),4*GE/FE Combo,Passive cold,-40~65degC             | -       |
| NECM000HSD00  | 02350DYU   | NE05E-SH 12G System,DC,4*GE(o),4*GE/FE(e),4*GE/FE Combo,16E1,Passive cold,-40~65degC        | -       |
| NECM000HSAP00 | 02350DYV   | NE05E-SI 12G System,AC,4*GE(o),4*GE/FE(o),4*GE/FE(e),Support 4*PoE+                         | -       |
| NECM000HSAE00 | 02350LTQ   | NE05E-SN 12G System,Double AC,4*GE(o),4*GE/FE(e),4*GE/FE Combo,16E1,Passive cold,-40~65degC | -       |

Table 13. NE05E-SJ/SK/SM/SL Basic Configuration Bundle

| Order Name   | BOM Number | Description   | Remarks |
|--------------|------------|---|---------|
| NECM000AIC00 | 02350DYW   | NE05E-SJ System,Indoor,AC,2*GE/FE Combo,2*GE/FE(o),2*GE/FE(e) | -       |
| NECM000AOC00 | 02350DCW   | NE05E-SL System,Outdoor,AC,2*GE/FE Combo,2*GE/FE(o),2*GE(o)   | -       |

| Order Name   | BOM Number | Description   | Remarks |
|--------------|------------|---|---------|
| NECM00AOCPO0 | 02350DCX   | NE05E-SM System,Outdoor,AC,1*GE/FE(o),1*GE/FE Combo with POE+ ,2*GE/FE(e) with PoE+ | -       |
| NECM000DIC00 | 02350DYX   | NE05E-SK System,Indoor,DC,2*GE/FE Combo,2*GE/FE(o),2*GE/FE(e)                       | -       |

## Auxiliary Materials

Table 14. Table 20. Compatible Auxiliary Materials ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description          | NE08E- |    | NE05E- |    |       | SG/SH/SI/SN | SJ/SK | SM/SL |
|--------------|------------|----------------------|--------|----|--------|----|-------|-------------|-------|-------|
|              |            |                      | S6E    | S6 | S2     | SQ | SE/SF |             |       |       |
| PW1B0IMB0300 | 21041214   | Indoor Mini Box (3U) | ●      | ●  | ●      | ●  | -     | ●           | ●     | -     |

## Interface Boards

Table 15. Compatible Interface Boards ("●" indicates "support", and "-" indicates "not support")

| Order Name    | BOM Number | Description  | NE08E-S6E | NE08E-S6 | NE05E-S2 | Remarks |
|---------------|------------|--|-----------|----------|----------|---------|
| NEDD000EX2S0  | 03056453   | 2 Channels 10GE Base LAN/WAN SFP+ Optical Interface Board                        | -         | ●        | -        | -       |
| NEDD000EX2S00 | 03057141   | 2 Channel 10GE Optical Interface Board(SFP+)                                     | ●         | -        | -        | -       |
| NEDD000EX1S0  | 03056452   | 1 Channel 10GE Base LAN/WAN SFP+ Optical Interface Board                         | ●         | ●        | -        | -       |
| NEDD00EM8F01  | 03056455   | 8 Channels GE/FE Optical Interface Board   | ●         | ●        | -        | -       |
| NEDD00EM8T01  | 03056458   | 8 Channels GE/FE Electrical Interface Board                                      | ●         | ●        | -        | -       |
| NEDD00EM8M00  | 03056454   | 4 Channels GE/FE Optical Interface and 4 Channels GE/FE Electric Interface Board | ●         | ●        | -        | -       |
| NEDD00EM4F01  | 03056456   | 4 Channels GE/FE Optical Interface Board   | ●         | ●        | -        | -       |
| NEDD000EG400  | 03056464   | 4 Channels FE/GE Adaptive Optical Interface Board                                | -         | -        | ●        | -       |
| NEDD00EM4T01  | 03056457   | 4 Channels GE/FE Electrical Interface Board                                      | ●         | ●        | -        | -       |

| Order Name   | BOM Number | Description  | NE08 E-S6E | NE08 E-S6 | NE05 E-S2 | Remarks  |
|--------------|------------|--|------------|-----------|-----------|--|
| NEDD00EG4T00 | 03056466   | 4 Channels FE/GE Adaptive Electronic Interface Board                                 | -          | -         | ●         | -  |
| NEDD000EG200 | 03056463   | 2 Channels GE Optical Interface Board  | -          | -         | ●         | -  |
| NEDD00EF8F00 | 03056465   | 8 Channels Fast Ethernet Optical Interface Board                                     | -          | -         | ●         | -  |
| NEDD00EF8T00 | 03056467   | 8 Channels Fast Ethernet Electric Interface Board                                    | -          | -         | ●         | -  |
| NEDD00CQ1B00 | 03056459   | 4 Channels Channelized OC-3c/STM-1c POS Optical Interface Board                      | -          | ●         | -         |  |
| NEDD000PQ100 | 03056460   | 4 Channels OC-3/STM-1 POS Optical Interface Board                                    | -          | ●         | -         | -  |
| NEDD16E17502 | 03056461   | 16 Channels E1 Interface Board(75ohm)  | ●          | ●         | -         | -  |
| NEDD16E17501 | 03056468   | 16 Channels E1 Interface Board(75ohm)  | -          | -         | ●         | -  |
| NEDD32E17501 | 03057266   | 32 Channels E1 Interface Board(75ohm)  | ●          | -         | -         | -  |
| NEDD16E11202 | 03056462   | 16 Channels E1 Interface Board(120ohm)   | ●          | ●         | -         | -  |
| NEDD16E11201 | 03056469   | 16 Channels E1 Interface Board(120ohm)   | -          | -         | ●         | -  |
| NEDD32E11201 | 03057267   | 32 Channels E1 Interface Board(120ohm)   | ●          | -         | -         | -  |
| NEDD01MPAA00 | 03056725   | 4-Channel FXS/FXO+2-Channel E&M+2-Channel RS232+2-Channel RS485 Board                | -          | ●         | ●         | Supported by V200R005C10 and the later versions. |
| NEDD001SA800 | 03056726   | 8-Channel V.35/X.21/V.24 Board   | -          | ●         | ●         | Supported by V200R005C10 and the later versions. |
| NEDD01MP8A00 | 03056886   | 4 Channels C37.94 Optical Interface and 4 Channels CoDir64K Electric Interface Board | -          | ●         | ●         | Supported by V200R005C10 and the later versions. |

## Assembly Cabinet

Table 16. Compatible Assembly Cabinet (R01S100) for NE05E ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description  | NE05E- |    |       |             |       |        |
|--------------|------------|--|--------|----|-------|-------------|-------|--------|
|              |            |  | S2     | SQ | SE/SF | SG/SH/SI/SN | SJ/SK | SM/S L |
| ANCDCF01S100 | 02359306   | ATN R01S100 Assembly Cabinet (DC,Not Supporting Power Backup)  | ●      | ●  | ●     | ●           | -     | -      |
| ANCDCF01S101 | 02359304   | ATN R01S100 Assembly Cabinet (DC,Power Backup 1 group of 48V12AH)  | ●      | ●  | ●     | ●           | -     | -      |
| WD2D00UELP00 | 03020FED   | Universal E1/T1 Lightning Protection unit  | ●      | ●  | ●     | ●           | -     | -      |
| WD2D0UFLPC00 | 03022KNY   | Universal FE or GE Lightning Protection Unit   | ●      | ●  | ●     | ●           | -     | -      |
| H83Z3SF01S50 | 02355391   | Components for Socket,Multi Type   | ●      | ●  | ●     | ●           | -     | -      |
| H83Z2SF01S50 | 02355392   | Components for Socket,New standard for China   | ●      | ●  | ●     | ●           | -     | -      |
| H83Z1SF01S50 | 02355393   | Components for Socket,European Standard  | ●      | ●  | ●     | ●           | -     | -      |
| WMM12AH00    | 24020760   | Rechargeable battery,VRLA battery,48V,12Ah,battery group(12V Monobloc),4*(151*98*98)mm,Without Battery Connectors(BB BPL12-12) | ●      | ●  | ●     | ●           | -     | -      |

Table 17. Compatible Assembly Cabinet (R01S200) for NE08E ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description  | NE08E-S6 E | NE08E-S6 |
|--------------|------------|--|------------|----------|
| ANCDCF01S200 | 02359299   | ATN R01S200 Assembly Cabinet (DC,Not Supporting Power Backup)              | ●          | ●        |
| ANCDCF01S201 | 02359303   | ATN R01S200 Assembly Cabinet (DC,ETP 4830,Power Backup 48V40AH or 48V26AH) | ●          | ●        |
| WD2D00UELP00 | 03020FED   | Universal E1/T1 Lightning Protection unit                                  | ●          | ●        |
| WD2D0UFLPC00 | 03022KNY   | Universal FE or GE Lightning Protection Unit                               | ●          | ●        |
| H83Z3SF01S50 | 02355391   | Components for Socket,Multi Type   | ●          | ●        |
| H83Z2SF01S50 | 02355392   | Components for Socket,New standard for China                               | ●          | ●        |

| Order Name   | BOM Number | Description   | NE08E-S6E | NE08E-S6 |
|--------------|------------|---|-----------|----------|
| H83Z1SF01S50 | 02355393   | Components for Socket,European Standard   | ●         | ●        |
| WMM12AH00    | 24020760   | Rechargeable battery,VRLA battery,48V,12Ah,battery group(12V Monobloc),4*(151*98*98)mm,Without Battery Connecters(BB BPL12-12)    | ●         | ●        |
| WMM26AH01    | 24020827   | Rechargeable Battery,VRLA Battery,48V,26Ah,Battery Group(12V Monobloc),4*(166*175*125)mm,Without Battery Connecters (BB BPL26-12) | ●         | ●        |
| WMM40AH05    | 24020759   | Rechargeable Battery,VRLA Battery,48V,40Ah,Battery Group(12V Monobloc),4*(197*165*171)mm,Without Battery Connecters(BB BPL40-12)  | ●         | ●        |

### Component of GPS Antenna

Table 18. Compatible Component of GPS Antenna ("●" indicates "support", and "-" indicates "not support")

| Order Name    | BOM Number | Description   | NE08E- |    | NE05E- |    |       | SG/SH/SI/SN | SJ/SK | SM/SL |
|---------------|------------|---|--------|----|--------|----|-------|-------------|-------|-------|
|               |            |   | S6E    | S6 | S2     | SQ | SE/SF |             |       |       |
| GM-JMP-1      | 25070076   | RF Cable,Copper-clad Aluminium Wire,50ohm,13.5mm,8.7mm,3.55mm,Black,1/2-Inch  | -      | ●  | ●      | -  | ●     | ●           | ●     | ●     |
| FEEDERCLB     | 27150113   | Antenna Feeder Accessories,Cable Fixing Clip,For GPS Feeder Cable and MW IF Cable,1 Card 2,Plastic Clip+Rubber Bush,Stainless Steel | -      | ●  | ●      | -  | ●     | ●           | ●     | ●     |
| A000AMP01     | 27190001   | GPS Relay Amplifier,1570.42MHz~1580.42MHz,22,2,CSGPSRA-22   | -      | ●  | ●      | -  | ●     | ●           | ●     | ●     |
| WM1NANTE NN00 | 27010596   | Antenna,1575.42 +/-1.023MHZ,38dBi,Right Circularly Polarized,Omni,0W,0Deg-N/Female,No rack  | -      | ●  | ●      | -  | ●     | ●           | ●     | -     |
| AGPSSUP00     | 21150707   | GPS Antenna Installation Support (Unified Support)  | -      | ●  | ●      | -  | ●     | ●           | ●     | ●     |
| ANPX00OAU X02 | 02232ABF   | GPS Antenna Installation Package  | -      | ●  | ●      | -  | ●     | ●           | ●     | ●     |
| ANPX00OAU X03 | 02232AKR   | The GPS Subassembly Package of Outdoor Installation   | -      | -  | -      | -  | -     | -           | -     | ●     |

| Order Name   | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|--------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|              |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| ANPM000GPS01 | 03031TUX   | AE 905S-Basic Configuration(GPS Timing SFP Module,PTP master,SyncE,1.25Gb/s,SMA Coaxial Connector) | -      | ●  | ●      | -      | ●         | ●                       | ●     | ●         |

## Power System

Table 19. Compatible Power System ("●" indicates "support", and "-" indicates "not support")

| Order Name             | BOM Number | Description  | NE08E- |    | NE05E- |        |       | SG/S<br>H<br>/SI/S<br>N | SJ/SK<br>/SM/S<br>L |
|------------------------|------------|--|--------|----|--------|--------|-------|-------------------------|---------------------|
|                        |            |  | S6E    | S6 | S2     | S<br>Q | SE/SF |                         |                     |
| QC-PSU                 | 02270072   | DC/DC Power System,-40degC~60degC,19V~30V,-53.5V/7A,0,6 outputs  | -      | ●  | ●      | ●      | ●     | ●                       | -                   |
| ANDP230ADP00           | 02220522   | 100W Power Module  | -      | -  | ●      | -      | ●     | ●                       | -                   |
| W04815AF1              | 01072056   | UPM System Power(ETP4830-4815AF)   | -      | ●  | ●      | -      | -     | -                       | -                   |
| WMM40AH05              | 24020759   | Rechargeable Battery,VRLA Battery,48V,40Ah,Battery Group(12V Monobloc),4*(197*165*171)mm,Without Battery Connectors(BB BPL40-12) | -      | ●  | ●      | -      | -     | -                       | -                   |
| Battery(40 Ah) Bracket | 21240076   | Supporting Frame of Battery  | -      | ●  | ●      | -      | -     | -                       | -                   |
| W04830AF1              | 01073092   | Embedded Power, ETP4830, 220Vac Single-Phase, 30A, Front Cabling, Width 19inch, Height 1U  | -      | ●  | -      | -      | -     | -                       | -                   |

## Optical/Electrical Transceiver

Table 20. 10 Gbps XFP Optical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number | Description | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------|------------|-------------|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|            |            |             | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |

| Order Name      | BOM Number | Description   | NE08E- |    | NE05E- |    |       | SG/SH/SI/SL | SJ/SK | SM/SL |
|-----------------|------------|---|--------|----|--------|----|-------|-------------|-------|-------|
|                 |            |   | S6E    | S6 | S2     | SQ | SE/SF |             |       |       |
| OSX010N08       | S4015772   | Optical Transceiver(XFP,1310nm,9.95~10.71Gb/s,-6dBm~-1dBm,-14.4dBm,Singlemode,LC,10km)    | -      | -  | -      | -  | ●     | -           | -     | -     |
| OSX040N09       | S4015776   | Optical Transceiver(XFP,1550nm,9.95Gb/s to 11.1Gb/s,-1dBm~2dBm,-15dBm,LC,Singlemode,40km) | -      | -  | -      | -  | ●     | -           | -     | -     |
| OSX080N06       | S4015794   | Optical transceiver(XFP,1550nm,9.95Gb/s to 11.1Gb/s,0~4dBm,-24dBm,LC,Singlemode,80km)     | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1471 | 34060547   | Optical Transceiver-XFP-1471nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1491 | 34060548   | Optical Transceiver-XFP-1491nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1511 | 34060549   | Optical Transceiver-XFP-1511nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1531 | 34060550   | Optical Transceiver-XFP-1531nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1551 | 34060551   | Optical Transceiver-XFP-1551nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1571 | 34060552   | Optical Transceiver-XFP-1571nm-9.95~11.1Gb/s-0dBm-4dBm--22dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |
| XFP-LH70-SM1591 | 34060553   | Optical Transceiver-XFP-1591nm-9.95~11.1Gb/s-0dBm-3dBm--21dBm-LC-SM-70km                  | -      | -  | -      | -  | ●     | -           | -     | -     |



| Order Name          | BOM Number | Description   | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|---------------------|------------|---|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                     |            |   | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| XFP-LH70-SM<br>1611 | 34060554   | Optical<br>Transceiver-XFP-1611nm-9.95~1<br>1.1Gb/s-0dBm-3dBm--21dBm-LC<br>-SM-70km     | -      | -  | -      | -      | ●         | -                       | -     | -         |
| XFP-LH80-19<br>5.90 | 34060515   | Optical<br>Transceiver,XFP,1530.33nm,9.9<br>5G~11.1Gbps,-1~3dBm,-24.0dB<br>m,LC,SM,80km | -      | -  | -      | -      | ●         | -                       | -     | -         |
| XFP-LH80-19<br>3.30 | 34060501   | Optical<br>Transceiver,XFP,1550.92nm,9.9<br>5G~11.1Gbps,-1~3dBm,-24.0dB<br>m,LC,SM,80km | -      | -  | -      | -      | ●         | -                       | -     | -         |

Table 21. 10 Gbps XFP Optical Transceiver (Industrial) ("●" indicates "support", and "-" indicates "not support")

| Order Name             | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                        |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| XFP-1550-10<br>GE-40km | 34060577   | Optical<br>Transceiver,XFP,1550nm,9.95Gb<br>/s to<br>11.1Gb/s,+2dBm,-1dBm,-15dBm<br>,LC,Single-mode,40km,-40~85C | -      | -  | -      | -      | ●         | -                       | -     | -         |

Table 22. 10 Gbps SFP+ Optical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number | Description   | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------|------------|---|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|            |            |   | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| OSX040N03  | S4017482   | Optical<br>Transceiver(SFP+,850nm,10Gb/s,<br>-7.3~-1dBm,-11.1dBm,LC,<br>MM,0.3km)   | ●      | ●  | -      | ●      | -         | -                       | -     | -         |
| OSX001002  | S4017483   | Optical<br>Transceiver(SFP+,1310nm,10Gb/<br>s,-8.2~-0.5dBm,-12.6dBm,LC,SM,<br>10km) | ●      | ●  | -      | ●      | -         | -                       | -     | -         |

| Order Name | BOM Number | Description  | NE08E- |    | NE05E- |        |           |   | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------|------------|--|--------|----|--------|--------|-----------|---|-------------------------|-------|-----------|
|            |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |   |                         |       |           |
| OMXD30002  | S4017484   | Optical Transceiver(SFP+,1550nm,9.95~11.1Gb/s,-4.7~4dBm,-14.1dBm,LC,SM,40km) | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX080N04  | 02310PVU   | Optical Transceiver(SFP+,1550nm,9.953~10.3125Gb/s,0~4dBm,-24dBm,LC,SM,80km)  | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070002  | 34060687   | Optical Transceiver-SFP+-1471nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070003  | 34060688   | Optical Transceiver-SFP+-1491nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070001  | 34060686   | Optical Transceiver-SFP+-1511nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070004  | 34060689   | Optical Transceiver-SFP+-1531nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070005  | 34060690   | Optical Transceiver-SFP+-1551nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070006  | 34060691   | Optical Transceiver-SFP+-1571nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070007  | 34060692   | Optical Transceiver-SFP+-1591nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |
| OSX070008  | 34060693   | Optical Transceiver-SFP+-1611nm-9.95~11.1Gb/s-0dBm-4dBm--23dBm-LC-SM-70km    | ●      | ●  | -      | ●      | -         | - | -                       | -     |           |

Table 23. 10 Gbps SFP+ Optical Transceiver (Industrial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number   | Description   | NE08E- |    | NE05E- |    |       | SG/SH/SI/SN | SJ/SK | SM/SL |
|------------|--------------|---|--------|----|--------|----|-------|-------------|-------|-------|
|            |              |   | S6E    | S6 | S2     | SQ | SE/SF |             |       |       |
| OMXD10N02  | 02310WRD     | Optical Transceiver,SFP+,850nm,9.8G,-5dBm,-1dBm,-11.1dBm,LC,MMF,0.1km       | ●      | ●  | -      | ●  | -     | -           | -     | -     |
| OSX010N09  | 34060599-002 | Optical transceiver,SFP+,1310nm,10.3125Gb/s,-8.2~0.5dBm,-14.4dBm,LC,SM,10km | ●      | ●  | -      | ●  | -     | -           | -     | -     |
| OSX040N08  | 02310WRF     | Optical transceiver,SFP+,1550nm,9.95~11.1Gb/s,-4.7~4dBm,-14.1dBm,LC,SM,40km | ●      | ●  | -      | ●  | -     | -           | -     | -     |

Table 24. 10 Gbps BIDI ESFP Optical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number   | Description   | NE08E- |    | NE05E- |    |       | SG/SH/SI/SN | SJ/SK | SM/SL |
|------------|--------------|---|--------|----|--------|----|-------|-------------|-------|-------|
|            |              |   | S6E    | S6 | S2     | SQ | SE/SF |             |       |       |
| OSX010B01  | 34060781     | BiDi Transceiver,XFP,TX1270nm/RX1330nm,9.95Gb/s to 11.35Gb/s,-5dBm,0dBm,-14dBm,LC,SM,10km   | -      | -  | -      | -  | ●     | -           | -     | -     |
| OSX010B00  | 34060780     | BiDi Transceiver,XFP,TX1330nm/RX1270nm,9.95Gb/s to 11.35Gb/s,-5dBm,0dBm,-14dBm,LC,SM,10km   | -      | -  | -      | -  | ●     | -           | -     | -     |
| OSX010B11  | 34060546-002 | BiDi Transceiver,SFP+,1330nm(Tx)/1270nm(Rx),2.5~11.3Gb/s,-8.2dBm,0.5dBm,-14.4dBm,LC,SM,10km | ●      | ●  | -      | -  | -     | -           | -     | -     |
| OSX010B10  | 34060544-002 | BiDi Transceiver,SFP+,1270nm(Tx)/1330nm(Rx),2.5~11.3Gb/s,-8.2dBm,0.5dBm,-14.4dBm,LC,SM,10km | ●      | ●  | -      | -  | -     | -           | -     | -     |

| Order Name                | BOM Number | Description   | NE08E- |    | NE05E- |     |       |                         |       |           |
|---------------------------|------------|---|--------|----|--------|-----|-------|-------------------------|-------|-----------|
|                           |            |   | S6E    | S6 | S2     | S Q | SE/SF | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
| SFP-GE-LX-S<br>M1310-BIDI | 34060470   | BiDi<br>Transceiver,eSFP,Tx1310nm/Rx1<br>490nm,1.25Gb/s,-9dBm,-3dBm,-<br>19.5dBm,LC,SM,10km     | ●      | ●  | ●      | ●   | ●     | ●                       | ●     | -         |
| SFP-GE-LX-S<br>M1490-BIDI | 34060475   | BiDi<br>Transceiver,eSFP,Tx1490nm/Rx1<br>310nm,1.25Gb/s,-9dBm,-3dBm,-<br>19.5dBm,LC,SM,10km     | ●      | ●  | ●      | ●   | ●     | ●                       | ●     | -         |
| OGEBIDI41                 | 34060539   | Optical<br>Transceiver,eSFP,1310nm(Tx)/14<br>90nm(Rx),1.25Gb/s,-2dBm,3dB<br>m,-23dBm,LC,SM,40km | ●      | ●  | ●      | ●   | ●     | ●                       | ●     | -         |
| OGEBIDI40                 | 34060540   | Optical<br>Transceiver,eSFP,1490nm(Tx)/13<br>10nm(Rx),1.25Gb/s,-2dBm,3dB<br>m,-23dBm,LC,SM,40km | ●      | ●  | ●      | ●   | ●     | ●                       | ●     | -         |

Table 25. 1 Gbps BIDI ESFP Optical Transceiver (Industrial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number | Description  | NE08E- |    | NE05E- |     |       |                         |       |           |
|------------|------------|--|--------|----|--------|-----|-------|-------------------------|-------|-----------|
|            |            |  | S6E    | S6 | S2     | S Q | SE/SF | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
| OGEBIDI10  | 34060644   | BiDi<br>Transceiver,SFP,1310(TX)/1490(R<br>X),1.25Gb/s,-9dBm,-3dBm,-19.5<br>dBm,LC(-40~85),SM,10km | -      | -  | -      | ●   | ●     | ●                       | ●     | -         |
| OGEBIDI11  | 34060676   | BiDi<br>Transceiver,SFP,1490(TX)/1310(R<br>X),1.25Gb/s,-9dBm,-3dBm,-19.5<br>dBm,LC(-40~85),SM,10km | -      | -  | -      | ●   | ●     | ●                       | ●     | -         |

Table 26. 1 Gbps SFP/eSFP Optical/Electrical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number | Description | NE08E- |    | NE05E- |     |       |                         |       |
|------------|------------|-------------|--------|----|--------|-----|-------|-------------------------|-------|
|            |            |             | S6E    | S6 | S2     | S Q | SE/SF | SG/S<br>H<br>/SI/S<br>N | SJ/SK |

| Order Name                      | BOM Number | Description   | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|---------------------------------|------------|---|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                                 |            |   | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| SFP-GE-1000 BaseT               | 34100080   | Optical Functional Module,1000BASE-T-SFP Module,RJ45 Electrical Module,Auto Negotiate,Longest Transimission Distance 100m | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| eSFP-850nm-1000Base-Sx/FC200 MM | 34060286   | Optical Transceiver,eSFP,850nm,2.125G b/s(Multi rate) ,-9.5~-2.5dBm,-17dBm,LC,MM,0.5km                                    | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| OSG010N05                       | S4016067   | Optical transceiver(eSFP,1310nm,1.25G b/s,-9dBm~-3dBm,-20dBm,LC,SM,10km)  | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| OSG040002                       | S4016954   | Optical Transceiver(eSFP,1310nm,1.25G b/s,-5~0dBm,-23dBm,LC,SM,40km)  | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| OSG080N01                       | 02310RAW   | Optical Transceiver,eSFP,1550nm,1.25G b/s,-2~5dBm,-23dBm,LC,SM,80km   | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| eSFP-LH80-S M1471               | 34060483   | Optical Transceiver,eSFP,1471nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km  | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S M1491               | 34060481   | Optical Transceiver,eSFP,1491nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km  | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S M1511               | 34060479   | Optical Transceiver,eSFP,1511nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km  | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S M1531               | 34060482   | Optical Transceiver,eSFP,1531nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km  | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S M1551               | 34060478   | Optical Transceiver,eSFP,1551nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km  | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |

| Order Name           | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|----------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                      |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| eSFP-LH80-S<br>M1571 | 34060476   | Optical Transceiver,eSFP,1571nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S<br>M1591 | 34060477   | Optical Transceiver,eSFP,1591nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |
| eSFP-LH80-S<br>M1611 | 34060480   | Optical Transceiver,eSFP,1611nm,100M ~2.67Gbps,5dBm,0dBm,-28dBm ,LC,80Km | ●      | ●  | ●      | ●      | ●         | ●                       | -     | -         |

Table 27. 1 Gbps SFP/eSFP Optical/Electrical Transceiver (Industrial) ("●" indicates "support", and "-" indicates "not support")

| Order Name                         | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------------------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                                    |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| eSFP(S)-1310<br>nm-1000Base<br>-Lx | 34060290   | Optical Transceiver,eSFP,1310nm,1.25G b/s,-9.5~-3dBm,-20dBm,LC(-40~85),SM,10km | -      | -  | -      | ●      | ●         | ●                       | ●     | ●         |
| eSFP-1310nm<br>-Lx-40Km            | 34060320   | Optical transceiver,eSFP,1310nm,1.25G b/s,-5dBm,0dBm,-22.5dBm,LC(-40~85),40km  | -      | -  | -      | ●      | ●         | ●                       | ●     | ●         |

Table 28. 155 Mbps SFP/eSFP Optical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name            | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|-----------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                       |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| eSFP-FE-LX-S<br>M1310 | S4015755   | Optical Transceiver(eSFP,1310nm,STM1, -15dBm~-8dBm,-31dBm,Single mode,LC,15Km) | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |

| Order Name          | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|---------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                     |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| eSFP-FE-LH40-SM1310 | S4015715   | Optical Transceiver(eSFP,1310nm,STM1,-5dBm~0dBm,-37dBm,Singlemode,LC,40Km) | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| eSFP-FE-LH80-SM1550 | 34060282   | Optical Transceiver,eSFP,1550nm,STM1,-5~0dBm,-37dBm,LC,SM,80km             | ●      | ●  | ●      | ●      | ●         | ●                       | ●     | -         |
| OSC002B01           | 34060588   | Optical Transceiver,eSFP,1310nm,2.048 Mb/s,-15dBm,-8dBm,-26dBm,LC,SM,2km   | ●      | ●  | ●      | -      | -         | -                       | -     | -         |

Table 29. 155 Mbps SFP/eSFP Optical Transceiver (Industrial) ("●" indicates "support", and "-" indicates "not support")

| Order Name        | BOM Number | Description  | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|-------------------|------------|--|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|                   |            |  | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| eSFP-1310nm-I-1   | 34060307   | Optical Transceiver,eSFP(industry),1310nm,STM1,-15~-8dBm,-31dBm,LC,SM,15km | -      | -  | -      | -      | ●         | ●                       | ●     | ●         |
| eSFP-1310nm-L-1.1 | 34060308   | Optical Transceiver,eSFP(industry),1310nm,STM1,-5~0dBm,-37dBm,LC,SM,40km   | -      | -  | -      | -      | ●         | ●                       | ●     | ●         |
| eSFP-1550nm-L-1.2 | 34060309   | Optical Transceiver,eSFP(industry),1550nm,STM1,-5~0dBm,-37dBm,LC,SM,80km   | -      | -  | -      | -      | ●         | ●                       | ●     | ●         |

Table 30. GPON-SFP Optical Transceiver (Commercial) ("●" indicates "support", and "-" indicates "not support")

| Order Name | BOM Number | Description | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------|------------|-------------|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|            |            |             | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |

| Order Name | BOM Number | Description   | NE08E- |    | NE05E- |        |           | SG/S<br>H<br>/SI/S<br>N | SJ/SK | SM/S<br>L |
|------------|------------|---|--------|----|--------|--------|-----------|-------------------------|-------|-----------|
|            |            |   | S6E    | S6 | S2     | S<br>Q | SE/<br>SF |                         |       |           |
| OSG020N00  | S4017571   | PON<br>Transceiver,SFP,1490nm(rx)/131<br>0nm(tx),2.488G(rx)/1.244G(TX),0<br>.5dBm,5dBm,-27dBm,SC/UPC,Ai<br>r ONU--40~70degC | -      | -  | -      | -      | -         | -                       | ●     | -         |

## Software Configuration

The NE08E&NE05E 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 31. Basic Software Package ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description  | NE08E- |    | NE05E- |        |       | SG/S<br>H<br>/SI/S<br>N | SJ/SK<br>/SM/S<br>L |
|--------------|------------|--|--------|----|--------|--------|-------|-------------------------|---------------------|
|              |            |  | S6E    | S6 | S2     | S<br>Q | SE/SF |                         |                     |
| NECS00V2R600 | 88033GXG   | NE05E-SJ/SK/SM/SL V200R006<br>Enterprise Software Package    | -      | -  | -      | -      | -     | -                       | ●                   |
| NECS00V2R601 | 88033GXH   | NE05E-S2 V200R006<br>Enterprise Software Package             | -      | -  | ●      | -      | -     | -                       | -                   |
| NECS00V2R602 | 88033GXJ   | NE05E-SG/H/I/N V200R006<br>Enterprise Software Package       | -      | -  | -      | -      | -     | ●                       | -                   |
| NECS00V2R603 | 88033GYU   | NE05E-SE/F V200R006<br>Enterprise Software Package           | -      | -  | -      | -      | ●     | -                       | -                   |
| NECS00V3R100 | 88034ACP   | NE05E-SQ V300R002<br>Enterprise Software package,Electronic  | -      | -  | -      | ●      | -     | -                       | -                   |
| NEDS00V2R600 | 88033GXF   | NE08E-S6 V200R006<br>Enterprise Software Package             | -      | ●  | -      | -      | -     | -                       | -                   |
| NEDS00V3R100 | 88034ACN   | NE08E-S6E V300R002<br>Enterprise Software package,Electronic | ●      | -  | -      | -      | -     | -                       | -                   |



Table 32. Basic Software Upgrade Package ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description  | NE08E- |    | NE05E- |    |       | SG/SH/SI/SN | SJ/SK/SM/SL |
|--------------|------------|--|--------|----|--------|----|-------|-------------|-------------|
|              |            |  | S6E    | S6 | S2     | SQ | SE/SF |             |             |
| NECSUPYEAR00 | 88032UKD   | NE05E-SJ/SK/SM/SL Software Upgrade Fee(Per Year)     | -      | -  | -      | -  | -     | -           | ●           |
| NECSUPYEAR01 | 88032UKA   | NE05E-S2 Software Upgrade Fee(Per Year)              | -      | -  | ●      | -  | -     | -           | -           |
| NECSUPYEAR02 | 88032UJW   | NE05E-SG/H/I/N Software Upgrade Fee(Per Year)        | -      | -  | -      | -  | -     | ●           | -           |
| NEGSUPYEAR03 | 88032UJS   | NE05E-SE/F Software Upgrade Fee(Per Year)            | -      | -  | -      | -  | ●     | -           | -           |
| NECSUPYEAR04 | 88033TFY   | NE05E-SQ Software Upgrade Fee(Per Year)              | -      | -  | -      | ●  | -     | -           | -           |
| NECSOUPVER00 | 88032UKE   | NE05E-SJ/SK/SM/SL Rn to R(n+1) Software Enhanced Fee | -      | -  | -      | -  | -     | -           | ●           |
| NECSOUPVER01 | 88032UKB   | NE05E-S2 Rn to R(n+1) Software Enhanced Fee          | -      | -  | ●      | -  | -     | -           | -           |
| NECSOUPVER02 | 88032UJX   | NE05E-SG/H/I/N Rn to R(n+1) Software Enhanced Fee    | -      | -  | -      | -  | -     | ●           | -           |
| NECSOUPVER03 | 88032UJT   | NE05E-SE/F Rn to R(n+1) Software Enhanced Fee        | -      | -  | -      | -  | ●     | -           | -           |
| NECSOUPVER04 | 88033TGA   | NE05E-SQ Rn to R(n+1) Software Enhanced Fee          | -      | -  | -      | ●  | -     | -           | -           |
| NEDSUPYEAR00 | 88032UJN   | NE08E-S6 Software Upgrade Fee(Per Year)              | -      | ●  | -      | -  | -     | -           | -           |
| NEDSUPYEAR01 | 88033TFW   | NE08E-S6E Software Upgrade Fee(Per Year)             | ●      | -  | -      | -  | -     | -           | -           |
| NEDSOUPVER00 | 88032UJP   | NE08E-S6 Rn to R(n+1) Software Enhanced Fee          | -      | ●  | -      | -  | -     | -           | -           |
| NEDSOUPVER01 | 88033TFX   | NE08E-S6E Rn to R(n+1) Software Enhanced Fee         | ●      | -  | -      | -  | -     | -           | -           |

## Documents

Table 33. Documents ("●" indicates "support", and "-" indicates "not support")

| Order Name   | BOM Number | Description   | NE08E- |    | NE05E- |        |       | SG/S<br>H<br>/SI/S<br>N | SJ/SK<br>/<br>SM/S<br>L |
|--------------|------------|---|--------|----|--------|--------|-------|-------------------------|-------------------------|
|              |            |   | S6E    | S6 | S2     | S<br>Q | SE/SF |                         |                         |
| NECI261DOC00 | 31189151   | NE05E&NE08E Mid-End Router Product Documentation (V200R006C10_01) | -      | ●  | ●      | -      | ●     | ●                       | ●                       |
| NECI311DOC00 | 31189546   | NE05E&NE08E Mid-End Router Product Documentation,(V300R002C00_01) | ●      | -  | -      | ●      | -     | -                       | -                       |

## Software Upgrade Paths

To get software release version or patch for NE08E&NE05E, visit [Software Upgrade Paths for NE05E](#).

To get software release version or patch for NE08E&NE05E, visit [Software Upgrade Paths for NE08E](#).

## For More Information

For more information about the Huawei NE08E&NE05E 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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