

# Huawei OptiX OSN 6800 and Boards Datasheet



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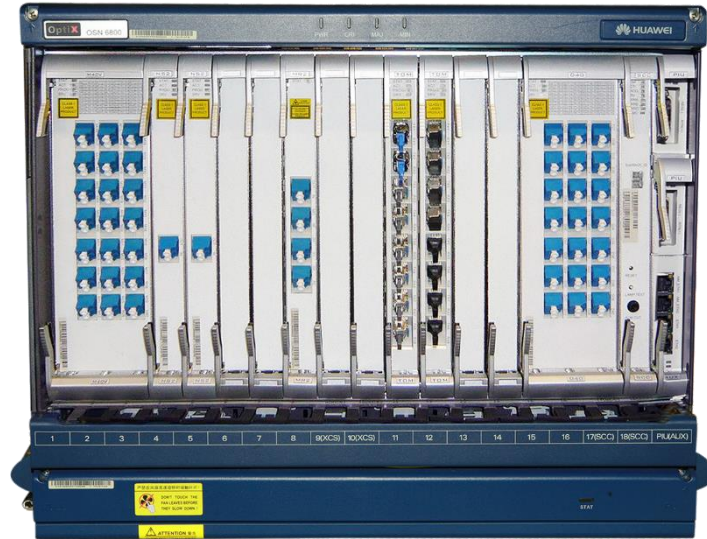
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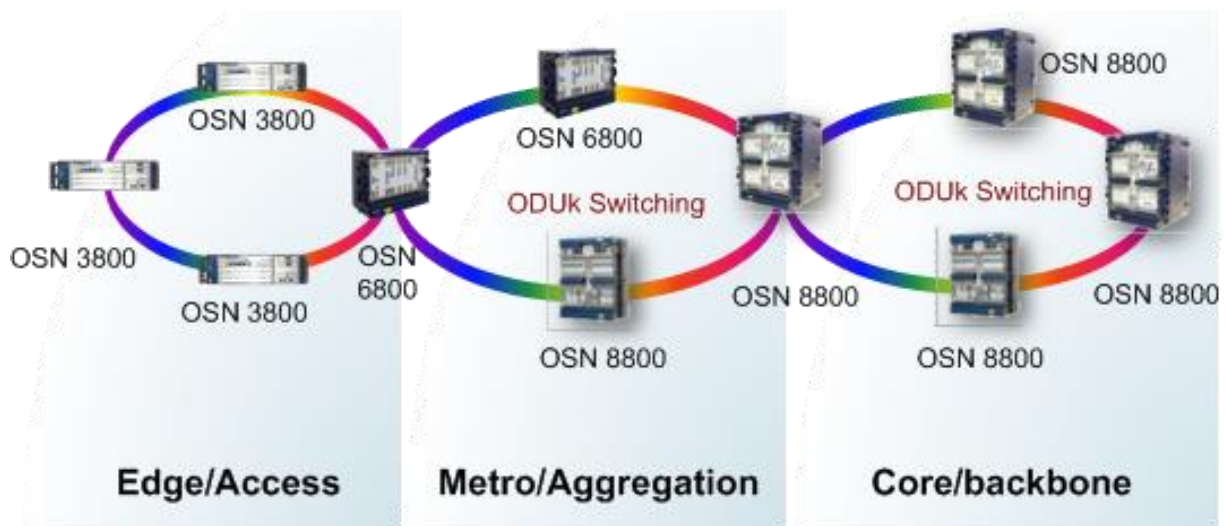
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## Overview

[Huawei OptiX OSN 6800 Intelligent Optical Transport Platform](#) (OptiX OSN 6800 for short) is referred to as Huawei next generation intelligent optical transport platform. The OptiX OSN 6800 is for area backbones, local networks, metropolitan convergence layers and metropolitan core layers. It may also work with other WDM, SDH/SONET equipment to offer a complete Metro WDM solution. The OptiX OSN 6800 supports 40 Gbit/s and 100 Gbit/s line rates and a 360G bit/s cross-connect capacity. It features power saving, and high reliability and maintainability.



[OptiX OSN 6800](#)



Position of the [OptiX OSN 3800](#) / [6800](#) in the network hierarchy

## Highlights of OptiX OSN 6800:

The OptiX OSN 6800 supports 40 Gbit/s, 100 Gbit/s and 200 Gbit/s line rates and a 360G bit/s cross-connect capacity. It features power saving, and high reliability and maintainability.

### ★ Highest Cross-Connect Capacity with Flexible Large-Capacity Service Grooming

- Features high cross-connect capacity. A single subrack supports a maximum of 360G bit/s cross-connect capacity, implementing large-capacity service grooming. Only one subrack is required for the large-capacity service grooming and therefore lowers power consumption and reduces the floor space.
- Supports multi-granularity OTN cross-connection, that is, ODUk cross-connection, where k can be 1, 2, or 2e.

### ★ Huge Bandwidth Provisioning with Flexible High-Density Architecture

- Supports comprehensive soft decision (SDFEC) and hard decision (HFEC) schemes to address various long-haul transmission requirements.
- Supports hybrid transmission of 10 Gbit/s, 40 Gbit/s, and 100 Gbit/s services, protecting carriers' investments.
- Supports flexible ROADM to provide the optical-layer platform for a beyond 100G system in future.

### ★ Tier 1 Reliability and Mass Data Transmission with Optimal Architecture

- Provides multiple network-level protection schemes and intelligent network management based on automatically switched optical network (ASON)/generalized multiprotocol label switching (GMPLS) technologies to protect all fibers and services.
- Provides protection for power supply devices, fans, communication control boards, and the cross-connection resource pool.

### ★ Low Power Consumption and High Maintainability, Providing the Minimizing OPEX

- Provides environment-friendly OTN solutions using various low-carbon technologies.
- Supports overall network performance monitoring using the user-friendly optical doctor (OD) system embedded in the U2000.

## Specification

Table 1. OptiX OSN 6800 Specification.

|                                    |                                |
|------------------------------------|--------------------------------|
| Specifications                     | <a href="#">OptiX OSN 6800</a> |
| Dimensions (mm)                    | 497 (W) x 295 (D) x 400 (H)    |
| Number of slots for service boards | 17                             |

|  |  |   |
|--|--|---|
| <b>Switch</b>                              | <b>Optical</b>                             | 1 to 20-degree ROADM  |
|  | <b>Electrical</b>                          | 180G GE<br>360G 10GE/ODUK(k=1, 2, 2e)   |
| <b>Wavelength (max)</b>                    |  | DWDM: 80-ch, CWDM: 8-ch   |
| <b>Wavelength range</b>                    |  | DWDM: 1529.16 nm to 1560.61 nm (Band-C, ITU-T G.694.1)<br>CWDM: 1471 nm to 1611 nm (Band S+C+L, ITU-T G.694.2)  |
| <b>Max. rate per channel</b>               |  | 100 Gbit/s (OTU4)   |
| <b>Service types supported</b>             |  | SDH, SONET, Ethernet, SAN, OTN, Video   |
| <b>Line rate</b>                           |  | 2.5 Gbit/s, 10 Gbit/s, 40 Gbit/s, 100 Gbit/s  |
| <b>Supported pluggable optical modules</b> |  | eSFP, SFP+, XFP, CFP  |
| <b>Max. capacity per PID group</b>         |  | 120 Gbit/s  |
| <b>Topology</b>                            |  | Point-to-point, chain, star, ring, ring-with-chain, tangent ring, intersecting ring, mesh   |
| <b>Redundancy and protection</b>           | <b>Network level protection (OTN)</b>      | Optical line protection, intra-board 1+1 protection, client 1+1 protection, ODUk SNCP, tributary SNCP, SW SNCP, MS SNCP, ODUk SPRing protection, OWSP, board-Level protection |
|  | <b>Network level protection (Ethernet)</b> | DBPS, DLAG, ERPS, LAG, LPT, MSTP, STP and RSTP, VLAN SNCP   |
|  | <b>Equipment level protection</b>          | Power redundancy, fan redundancy, cross-connect board redundancy, system control and communication board redundancy   |

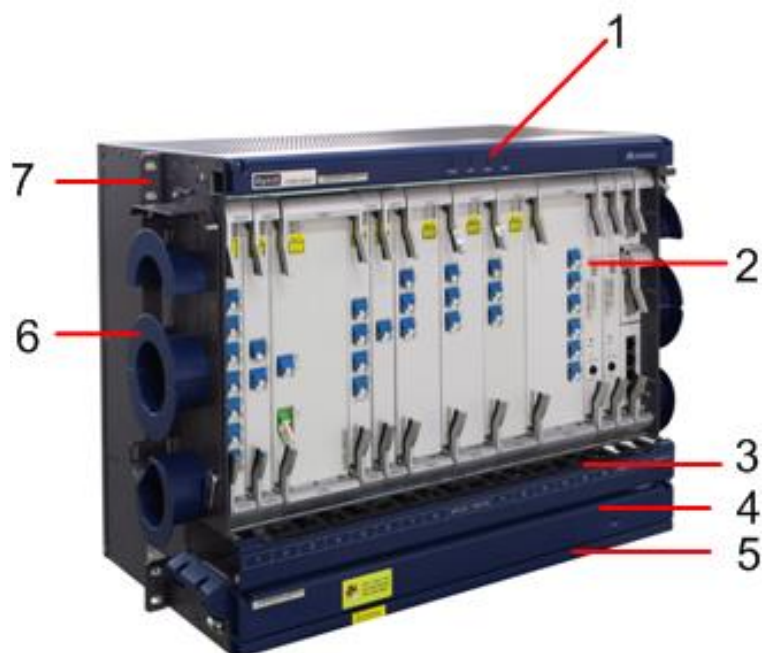
|  |   |
|--|---|
| <b>Optical power management</b>          | ALS, AGC, ALC, APE, IPA, OPA  |
| <b>Synchronization</b>                   | Synchronous Ethernet clock<br><br>IEEE 1588v2<br><br>2 Mbit/s or 2 MHz (with the SSM function), ITU-T G.703-compliant external clock source<br><br>External time source (1PPS+TOD)  |
| <b>ASON</b>                              | Optical-Layer ASON  |
| <b>Nominal working voltage</b>           | -48 V DC/-60 V DC   |
| <b>Maximum subrack power consumption</b> | 1350 W  |
| <b>Operation environment</b>             | Subrack temperature:<br><br>Long-term operation: 5°C (41 °F) to 45°C (113 °F)<br><br>Short-term operation: -5°C (23 °F) to 55°C (131 °F)<br><br>Relative humidity:<br><br>Long-term operation: 5% to 85%<br><br>Short-term operation: 5% to 95% |
| <b>Mean time to repair (MTTR)</b>        | 4 hours   |
| <b>Mean time between failures (MTBF)</b> | 51.64 years   |

## Hardware Description

### Structure

Subracks are the basic working units of the OptiX OSN 6800. The subrack of the OptiX OSN 6800 has an independent power supply.

## Appearance of the OptiX OSN 6800 chassis



**Table 2. Note**

|                                 |               |                       |
|---------------------------------|---------------|-----------------------|
| 1. Indicator and interface area | 2. Board area | 3. Fiber cabling area |
| 4. Fan tray assembly            | 5. Air filter | 6. Fiber spool        |
| 7. Mounting ear                 | -             | -                     |

### NOTE:


The interface area is behind the indicator panel in the upper part of the subrack. Remove the indicator panel before you connect cables.

- Indicators: indicate the running status and alarm status of the subrack.
- Board area: All service boards are installed in this area. 21 slots are available.
- Fiber cabling area: Fiber jumpers from the ports on the front panel of each board are routed to the fiber cabling area before being routed on a side of the open rack. The mechanical VOA is also installed in this area.





**NOTE:**

-  : service boards.

- IU15 and IU16 are also available for the STG.

- When the OSN 6800 subrack needs to use the IEEE 1588v2 or physical clock synchronization function, STG board must be configured. Two STG boards need to be configured. The two STG boards work in active/standby mode.

- Pair slots refer to a pair of slots whose resident boards' overhead can be processed by the buses on the backplanes. OSN 6800 supports pair slots.

- At a site where OSC signals pass through, two OSC boards must be configured in paired slots.

- When line boards or OTU boards function as regeneration boards, ESC signals need to pass through the boards. In this scenario, the two line boards or OTU boards must be configured in paired slots.

- Paired slots among slots IU1 to IU8 and IU11 to IU16 support distributed service grooming.

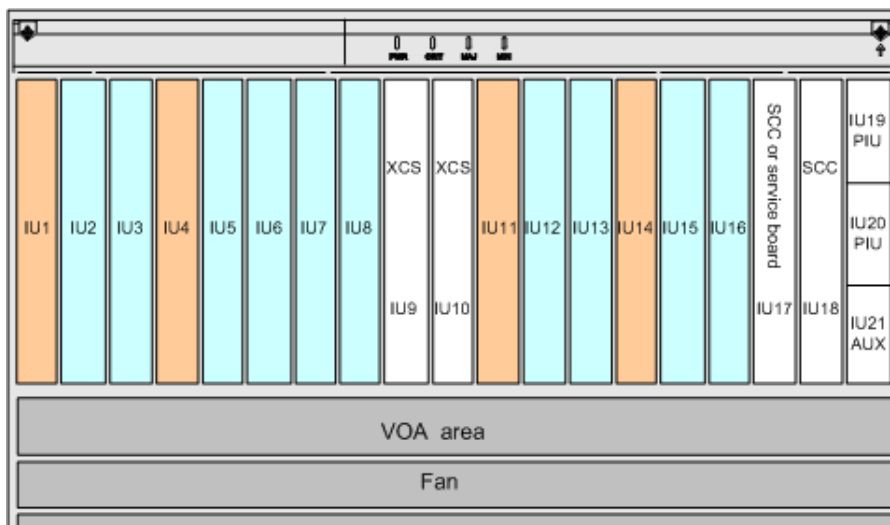
**NOTE:**

The IEEE 1588v2 function is not supported by all services boards or ST2/AST2 boards in slots 15 and 16 in an OptiX OSN 6800 subrack.

**Cross-Connect Capacities**







**Integrated Grooming**

When using the XCS board, an OptiX OSN 6800 subrack can cross-connect ODU1, ODU2, ODU2e, 10GE, and GE services between any two slots among slots IU1-IU8 and slots IU11-IU16. It provides the cross-connect capacity for each slot.



**Cross-connect capacities of slots**

**Table 3. Cross-connect capacity of OptiX OSN 6800 subrack**

| Cross-Connect Board | Slot   | Maximum Cross-Connect Capacity of Each Slot |               | Maximum Cross-Connect Capacity of Subrack   |
|---------------------|--|---|---------------|---|
|                     |  | ODU1/ODU2/ODU2e/10GE                        | GE            |   |
| TN12XCS             |   | 40 Gbit/s                                   | 20 Gbit/s     | 180 Gbit/s GE   |
|                     |   | 20 Gbit/s                                   | 10 Gbit/s     | 360 Gbit/s ODU1/ODU2/ODU2e/10GE   |
|                     |   | Not supported                               | Not supported | Supports hybrid transmission of the above-mentioned services with the maximum cross-connect capacity of 360 Gbit/s. |
| TN11XCS             |   | 20 Gbit/s                                   | 10 Gbit/s     | 140 Gbit/s GE   |
|                     |   |   |               | 280 Gbit/s ODU1/ODU2/ODU2e/10GE   |
|                     |  | Not supported                               | Not supported | Supports hybrid transmission of the above-mentioned services with the maximum cross-connect capacity of 280 Gbit/s. |

**Distributed Grooming**

An OptiX OSN 6800 subrack provides pairs of slots. GE/Any/ODU1/OTU1 services can be cross-connected between paired slots. No XCS board is required when paired slots are used to cross-connect electrical services. The paired slots IU9 and IU10 do not support distributed service grooming.

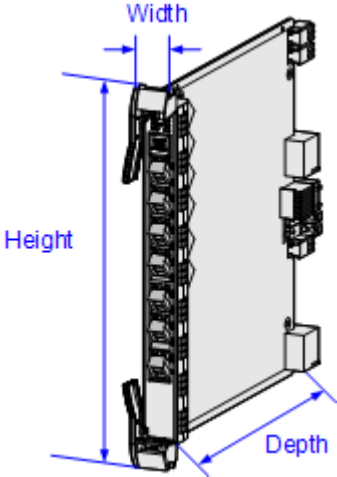
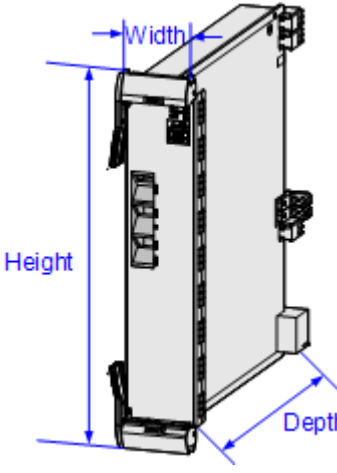
**Mechanical Specifications**

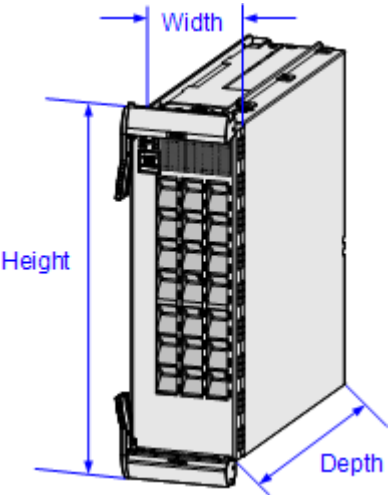
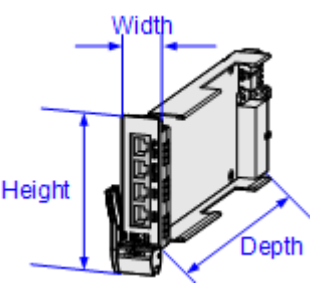
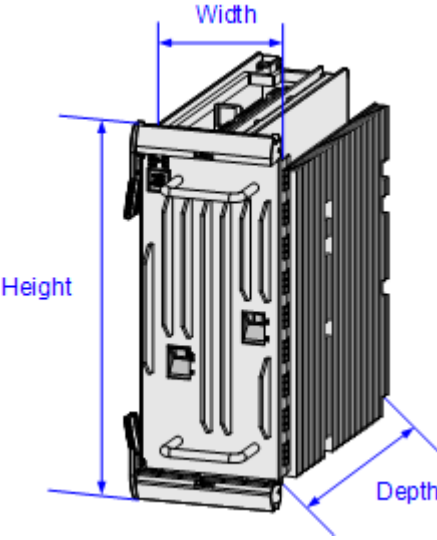
**Table 4. The mechanical specifications of the OptiX OSN 6800 subrack.**

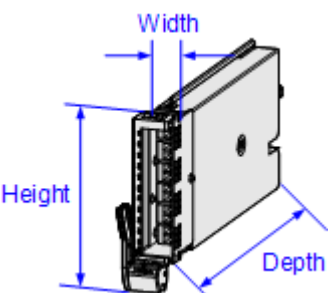
| Item  | Specification                        |
|---|--------------------------------------|
| Dimensions  | 497 mm (W) x 295 mm (D) x 400 mm (H) |
| Weight (empty subracka)   | 13 kg                                |
| a: An empty subrack means no boards are installed in the board area, and no fan tray assembly or air filter is installed. |                                      |

## Boards Description

**Table 5. Appearance and Dimensions of Boards**

| Board Appearance   | Board Name | Number of Slots Per Board | Height (mm) | Width (mm) | Depth (mm) |
|--|------------|---------------------------|-------------|------------|------------|
|  <p>The diagram shows a perspective view of the TN11L4G board. It is a vertical board with a single slot. Blue dimension lines indicate the Height (vertical), Width (horizontal), and Depth (depth of the board).</p> | TN11L4G    | 1                         | 264.6       | 25.4       | 220.0      |
|  <p>The diagram shows a perspective view of the TN110AU1 board. It is a vertical board with two slots. Blue dimension lines indicate the Height (vertical), Width (horizontal), and Depth (depth of the board).</p>   | TN110AU1   | 2                         | 264.6       | 50.8       | 220.0      |

| Board Appearance  | Board Name | Number of Slots Per Board | Height (mm) | Width (mm) | Depth (mm) |
|---|------------|---------------------------|-------------|------------|------------|
|    | TN11M40    | 3                         | 264.6       | 76.2       | 220.0      |
|   | TN11AUX    | 1                         | 107.6       | 25.4       | 220.0      |
|  | TN11LSXL   | 4                         | 264.6       | 101.6      | 220.0      |

| Board Appearance  | Board Name | Number of Slots Per Board | Height (mm) | Width (mm) | Depth (mm) |
|---|------------|---------------------------|-------------|------------|------------|
|  | TN21MR4    | 1                         | 118.9       | 25.4       | 220.0      |

**Table 6. OptiX OSN 6800 Board Category**

| Board Category                  | Board Name | Board Description  |
|---------------------------------|------------|--|
| <b>Optical transponder unit</b> | TN11ECOM   | Enhanced communication interface unit  |
|                                 | TN11L4G    | Line wavelength conversion unit with 4 x Gigabit Ethernet line capacity                                  |
|                                 | TN11LDGS   | 2 x Gigabit Ethernet unit, single fed and single receiving   |
|                                 | TN11LDGD   | 2 x Gigabit Ethernet unit, dual fed and selective receiving  |
|                                 | TN12LDM    | 2-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion board                                   |
|                                 | TN11LDMD   | 2-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion board, dual fed and selective receiving |
|                                 | TN11LDMS   | 2-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion board, single fed and single receiving  |
|                                 | TN12LDX    | 2 x 10 Gbit/s wavelength conversion unit   |

|  |           |   |
|--|-----------|---|
|  | TN11LEM24 | 22×GE + 2×10GE and 2×OTU2 ethernet switch board   |
|  | TN11LEX4  | 4×10GE and 2×OTU2 ethernet switch board   |
|  | TN11LOA   | 8 x Any-rate MUX OTU2 Wavelength Conversion Board   |
|  | TN11LOG   | 8 x Gigabit Ethernet unit   |
|  | TN12LOG   |   |
|  | TN11LOM   | 8-port multi-service multiplexing & optical wavelength conversion board                                 |
|  | TN12LOM   |   |
|  | TN11LQG   | 4 x GE-multiplex-optical wavelength conversion board  |
|  | TN13LQM   | 4-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion unit                                   |
|  | TN11LQMD  | 4-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion unit, dual fed and selective receiving |
|  | TN12LQMD  |   |
|  | TN11LQMS  | 4-channel multi-rate (100Mbit/s-2.5Gbit/s) wavelength conversion unit, single fed and single receiving  |
|  | TN12LQMS  |   |
|  | TN12LSC   | 100 Gbit/s wavelength conversion board  |
|  | TN17LSC   |   |
|  | TN17LSCM  | 100 Gbit/s wavelength conversion board  |
|  | TN11LSQ   | 40 Gbit/s wavelength conversion board   |

|  |           |   |
|--|-----------|---|
|  | TN11LSX   | 10 Gbit/s wavelength conversion unit  |
|  | TN12LSX   |   |
|  | TN13LSX   |   |
|  | TN14LSX   |   |
|  | TN11LSXL  | 40 Gbit/s wavelength conversion board   |
|  | TN12LSXL  |   |
|  | TN15LSXL  |   |
|  | TN11LSXLR | 40 Gbit/s wavelength conversion relay unit  |
|  | TN12LSXLR |   |
|  | TN11LSXR  | 10 Gbit/s wavelength conversion relay unit  |
|  | TN11LTX   | 10-Port 10Gbit/s Service multiplexing & optical wavelength conversion board       |
|  | TN12LTX   |   |
|  | TN17LTX   |   |
|  | TN11LWX2  | arbitrary rate (16Mbit/s-2.7Gbit/s) dual-wavelength conversion board              |
|  | TN11LWXD  | arbitrary rate (16Mbit/s-2.7Gbit/s) wavelength conversion board (double transmit) |
|  | TN11LWXS  | arbitrary rate (16Mbit/s-2.7Gbit/s) wavelength conversion board (single transmit) |
|  | TN12LWXS  |   |

|  |           |   |
|--|-----------|---|
|  | TN11TMX   | 4 channels STM-16/OC-48/OTU1 asynchronism mux OTU-2 wavelength conversion board |
|  | TN12TMX   |   |
| <b>Universal Line Service Processing Board</b> | TN54HSNS4 | 1 x 100G Universal Line Service Processing Board                                |
| <b>OTN Tributary unit</b>                      | TN11TBE   | 10 Gigabit ethernet tributary board   |
|  | TN11TDG   | 2 x GE tributary service processing board                                       |
|  | TN11TDX   | 2 x 10G tributary service processing board                                      |
|  | TN12TDX   |   |
|  | TN52TDX   |   |
|  | TN53TDX   |   |
|  | TN52TOG   |   |
|  | TN11TOM   | 8 x multi-rate ports service processing board                                   |
|  | TN52TOM   |   |
|  | TN11TQM   | 4 x multi-rate tributary service processing board                               |
|  | TN12TQM   |   |
|  | TN11TQS   | 4 x STM-16/OC-48/OTU1 tributary service processing board                        |
|  | TN11TQX   | 4 x 10 Gbit/s tributary service processing board                                |
|  | TN52TQX   |   |



|                      |                 |  |
|----------------------|-----------------|--|
|                      | TN55TQX         |  |
|                      | TN11TSXL        | 40 Gbit/s tributary service processing board   |
| <b>OTN Line unit</b> | TN11ND2         | 2 x 10G line service processing board  |
|                      | TN12ND2         |  |
|                      | TN52ND2         |  |
|                      | TN53ND2         |  |
|                      | TN51NQ2         | 4 x 10G Line Service Processing Board  |
|                      | TN52NQ2         |  |
|                      | TN53NQ2         |  |
|                      | TN11NS2         | 10G Line Service Processing Board  |
|                      | TN12NS2         |  |
|                      | TN52NS2         |  |
|                      | TN53NS2         |  |
|                      | TN11NS3         | 40G line service processing board<br><br>NOTE:<br>The TN54NS3/TN55NS3 board for the OptiX OSN 6800 only supports relay mode. |
|                      | TN52NS3         |  |
|                      | TN54NS3         |  |
|                      | TN55NS3         |  |
|                      | <b>PID unit</b> | TN11BMD4   |

|                        |          |  |
|------------------------|----------|--|
|                        | TN11BMD8 | PID Interleaver Board (C_Band), 200/50 GHz                                 |
|                        | TN12ELQX | 4×Electrical OTU2 with 4×10G Tributary Board                               |
|                        | TN12PTQX | 12× OTU2 PID board with 4×10G Tributary                                    |
| <b>Submarine Board</b> | TN96OBU1 | C-band Optical Booster Unit  |
|                        | TN96WSD9 | 9-port flexible wavelength selective demultiplexing board(Extended C-band) |
|                        | TN96WSM9 | 9-port wavelength selective multiplexing board(Extended C-band)            |
|                        | TN97OPM8 | 8-channel optical power monitor board(Extended C-band)                     |
|                        | TN97MD2  | 2-port Multiplexing and Demultiplexing Board (Extended C Band)             |
|                        | TN97M48V | 48-channel multiplexing board with VOA(Extended C-band)                    |
|                        | TN97D48  | 48-channel demultiplexing board(Extended C-band)                           |
|                        | TN97FIU  | Fiber interface board(Extended C-band)                                     |
|                        | TN97ITL  | Interleaver board(Extended C-band)   |
|                        | TN97TD20 | 20-ports Tunable DeMultiplexing Board(Extended C_band)                     |
|                        | TN97TM20 | 20-ports Tunable Multiplexing Board(Extended C_band)                       |
|                        | TN97ASE  | Extended C-band Amplified spontaneous emission board with pump protection  |
|                        | TN51HBA  | Extended C-band high-power booster amplifier board                         |

|   |          |   |
|---|----------|---|
|   | TN97OAU2 | Extended C-band optical booster unit with pump protection                     |
|   | TN97OBU2 | Extended C-band optical booster unit with pump protection                     |
|   | TN51ROP  | Extended C-band remote optical pump processing board                          |
|   | TN51RPC  | Extended C-band forward raman processing board                                |
|   | TN97RPC  | Extended C band backward Raman processing board. For the details of the board |
|   | TN97ERPC | Extended C-band enhanced Raman processing board                               |
| <b>Cross-connect unit and system and communication unit</b> | TN11XCS  | centralized cross connect board   |
|   | TN12XCS  |   |
|   | TN11SCC  | system control and communication unit   |
|   | TN51SCC  |   |
|   | TN52SCC  |   |
|   | TN11AUX  | system auxiliary interface board  |
|   | TN12AUX  |   |
| <b>Optical multiplexer and demultiplexer unit</b>           | TN11M40  | 40-channel multiplexing unit  |
|   | TN12M40  |   |
|   | TN11D40  | 40-channel demultiplexing unit  |
|   | TN12D40  |   |
|   | TN97D48  | 48-channel demultiplexing board   |

|   |           |  |
|---|-----------|--|
|   | TN11M40V  | 40-channel multiplexing unit with VOA                            |
|   | TN12M40V  |  |
|   | TN97M48V  | 48-channel multiplexing board with VOA                           |
|   | TN11D40V  | 40-channel demultiplexing unit with VOA                          |
|   | TN11FIU   | fiber interface unit   |
|   | TN12FIU   |  |
|   | TN13FIU   |  |
|   | TN14FIU   |  |
|   | TN15FIU   |  |
|   | TN16FIU   |  |
|   | TN11ITL06 | interleaver board(extended C-band)                               |
|   | TN11ITL01 | interleaver board  |
|   | TN11ITL04 |  |
|   | TN12ITL   |  |
|   | TN11SFIU  | fiber interface unit for sync timing                             |
| <b>Fixed optical add and drop multiplexing unit</b> | TN11CMR2  | CWDM 2-channel optical add/drop multiplexing unit                |
|   | TN11CMR4  | CWDM 4-channel optical add/drop multiplexing unit                |
|   | TN11DMR1  | CWDM 1-channel bidirectional optical add/drop multiplexing board |
|   | TN11MR2   | 2-channel optical add/drop multiplexing unit                     |

|  |  |  |
|--|--|--|
|  | TN11MR4                                      | 4-channel optical add/drop multiplexing unit                                     |
|  | TN11MR8                                      | 8-channel optical add/drop multiplexing unit                                     |
|  | TN11MR8V<br>TN12MR8V                         | 8-channel optical add/drop multiplexing unit with VOA                            |
|  | TN11SBM2                                     | 2-channel CWDM single-fiber bidirectional add/drop board                         |
| <b>Reconfigurable<br/>optical add and drop<br/>multiplexing unit</b> | TN11RDU9                                     | 9-port ROADM demultiplexing board  |
|  | TN12RDU9                                     | 9-port ROADM demultiplexing board(Extended C-band)                               |
|  | TN11RMU9                                     | 9-port ROADM multiplexing board  |
|  | TN11ROAM                                     | reconfigurable optical adding board  |
|  | TN12TD20                                     | 20-ports Tunable Demultiplexing Board  |
|  | TN97TD20                                     | 20-ports Tunable DeMultiplexing Board(extended C_band)                           |
|  | TN11TM20<br>TN13TM20<br>TN15TM20             | 20-ports Wavelength Tunable Multiplexing Board                                   |
|  | TN97TM20                                     | 20-ports flexible and tunable wavelength multiplexing board<br>(Extended C-band) |
|  | TN11WSD9<br>TN12WSD9<br>TN13WSD9<br>TN16WSD9 | 9-port wavelength selective switching demultiplexing board                       |

|  |           |   |
|--|-----------|---|
|  | TN17WSD9  |   |
|  | TN96WSD9  | 9-ports flexible wavelength selective demultiplexing board<br>(Extended C-band) |
|  | TN11WSM9  | 9-port wavelength selective switching multiplexing board                        |
|  | TN12WSM9  |   |
|  | TN13WSM9  |   |
|  | TN16WSM9  |   |
|  | TN17WSM9  |   |
|  | TN96WSM9  | 9-ports flexible wavelength selective multiplexing<br>board(Extended C-band)    |
|  | TN11WSMD2 | 2-port wavelength selective multiplexer and demultiplexer<br>board              |
|  | TN11WSMD4 | 4-port wavelength selective multiplexer and demultiplexer<br>board              |
|  | TN12WSMD4 |   |
|  | TN13WSMD4 |   |
|  | TN17WSMD4 |   |
|  | TN11WSMD9 | 9-port wavelength selective multiplexing and demultiplexing<br>board            |
|  | TN12WSMD9 |   |
|  | TN15WSMD9 |   |
|  | TN52WSMD9 |   |

|                               |  |   |
|-------------------------------|--|---|
|                               | TN15DWSS20                                   | Dual 20-Port Wavelength Selective Switching Board   |
|                               | TN51DWSS20<br>TN52DWSS20                     | Dual 20-ports wavelength selective multiplexing and demultiplexing board(Extended C-band) |
|                               | TN51MCS0816                                  | Dual Multicast Switching Board(Extended C-band)   |
| <b>Optical amplifier unit</b> | TN11CRPC                                     | Case-shape Raman pump amplifier unit for C-band   |
|                               | TN11DAS1                                     | Optical amplifier unit  |
|                               | TN11HBA                                      | High-power booster amplifier board  |
|                               | TN51HBA                                      | Extended C-band high-power booster amplifier board  |
|                               | TN11OAU1                                     | Optical amplifier unit  |
|                               | TN12OAU1                                     |   |
|                               | TN13OAU1                                     |   |
|                               | TN11OBU1<br>TN12OBU1<br>TN13OBU1             | Optical booster unit  |
|                               | TN11OBU2<br>TN12OBU2<br>TN13OBU2<br>TN14OBU2 | Optical booster unit  |
|                               | TN11RAU1<br>TN12RAU1                         | Backward raman and erbium doped fiber hybrid optical amplifier unit                       |

|   |            |   |
|---|------------|---|
|   | TN11RAU2   |   |
|   | TN12RAU2   |   |
|   | TN51ROP    | Extended C-band Remote optical pump processing Board  |
|   | TN51RPC    | Extended C-band forward raman processing board  |
|   | TN11SRAU   | Super C-band backward raman and erbium doped fiber hybrid optical amplifier unit            |
|   | TN52SRAPXF | Extended C-band Super Backward Raman and Pluggable Erbium Doped Fiber Amplifier Hybrid Unit |
|   | TN52DAP    | Extended C-band optical amplifier base board with 2 pluggable ports                         |
|   | TN52DAPXF  | Extended C-band optical amplifier board with 2 pluggable ports (XFIU embedded)              |
| <b>Optical supervisory channel unit</b> | TN11HSC1   | high power unidirectional optical supervisory channel board                                 |
|   | TN12HSC1   |   |
|   | TN11SC1    | unidirectional optical supervisory channel unit   |
|   | TN12SC1    |   |
|   | TN11SC2    | bidirectional optical supervisory channel unit  |
|   | TN12SC2    |   |
|   | TN11ST2    | bidirectional optical supervisory channel and timing transmission unit                      |
|   | TN12ST2    |   |
| TN13ST2                                 |            |   |



|                                |                     |   |
|--------------------------------|---------------------|---|
|                                | TN11AST2            | Bidirectional optical supervisory channel and timing transmission unit (with Advanced OTDR) |
|                                | TN51LMU             | Line Monitor Unit   |
| <b>Optical protection unit</b> | TN11DCP             | 2-channel optical path protection unit  |
|                                | TN12DCP             |   |
|                                | TN13DCP             |   |
|                                | TN11OLP             | optical line protection unit  |
|                                | TN12OLP             |   |
|                                | TN13OLP             |   |
|                                | TN11OLSP            | Optical line switch protection board  |
|                                | TN11OLSPA/TN11OLSPB | Optical line switch protection board that supports synchronous information transmission     |
|                                | TN11QCP             | 4-channel optical path protection unit  |
|                                | TN11SCS             | sync optical channel separator unit   |
| <b>Spectrum analyzer unit</b>  | TN11MCA4            | 4-channel spectrum analyzer unit  |
|                                | TN11MCA8            | 8-channel spectrum analyzer unit  |
|                                | TN11OPM8            | 8-channel optical power monitoring board  |
|                                | TN12OPM8            |   |
|                                | TN15OPM8            |   |

|   |                               |   |
|---|-------------------------------|---|
|   | TN97OPM8                      | 8-channel flexible bandwidth optical power monitor board<br>(Extended C-band) |
|   | TN11WMU                       | wavelength monitoring unit  |
| <b>Variable optical attenuator unit</b> | TN11VA1<br>TN12VA1<br>TN13VA1 | 1-channel variable optical attenuator unit                                    |
|   | TN11VA4<br>TN12VA4<br>TN13VA4 | 4-channel variable optical attenuator unit                                    |
| <b>Dispersion equalizing unit</b>       | TN11DCU                       | dispersion compensation board   |
|   | TN11TDC                       | single-wavelength tunable-dispersion compensation board                       |
| <b>Clock unit</b>                       | TN11STG                       | centralized clock board   |
|   | TN12STG                       |   |
|   | TN13STG                       |   |
| <b>ROPA subsystem unit</b>              | TN11GFU                       | gain flatness unit  |
|   | TN11RGU                       | ROPA gain unit  |
|   | TN11ROP                       | ROPA pumping unit   |
|   | TN51ROP                       | Extended C-band remote optical pump processing board                          |
| <b>Interface area unit</b>              | TN11EFI                       | EMI filter interface board  |
|   | TN11PIU                       | power interface unit  |

|  |         |     |
|--|---------|-----|
| <b>Fan</b>   | TN11FAN | Fan |
| a: For the details of the ROPA subsystem unit, refer to ROPA Subsystem User Guide. |         |     |

## Basic Ordering Information

**Table 7. Ordering information of Huawei OptiX OSN 6800 chassis.**

| Model                                 | Description   |
|---------------------------------------|---|
| <a href="#">Huawei OptiX OSN 6800</a> | Huawei OptiX OSN 6800 supports 40 Gbit/s, 100 Gbit/s and 200 Gbit/s line rates and a 360G bit/s cross-connect capacity, provides power saving, and high reliability and maintainability |

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## Sources

<https://support.huawei.com/enterprise/en/transmission-network/optix-osn-6800-pid-16167>