The Nokia 7750 Service Router (SR) and Nokia 7450 Ethernet Service Switch (ESS) Ethernet Media Dependent Adapter (MDA)-XP delivers a wide range of Ethernet interfaces for IP/MPLS-based routing and service applications.

The Nokia Ethernet MDA-XP provides flexibility through a wide range of Ethernet adapter types, interface options, and advanced service delivery capabilities to meet a full array of IP network functions, services and applications.

The Nokia Ethernet MDA-XP delivers up to 25 Gb/s (full duplex) of throughput in a half-slot, hot-swappable module. It provides physical layer termination, specific interface ports, physical media and optical functions. It supports a wide range of pluggable SFP and XFP optical modules for a high degree of configuration flexibility and service optimization. The Ethernet MDA-XP is supported on the Nokia IOM3-XP, with up to two Ethernet adapter types per IOM3-XP.

Using Nokia IOM3-XP FP2 technology, the Ethernet MDA-XP supports processing-intensive routing applications without sacrificing performance. It is ideal for linear TV, video on demand, Internet access, mobile backhaul, enterprise virtual private network (VPN) services/internet access and cloud and data center interconnect services. For enterprises, it provides high-performance Ethernet and IP networking, cloud, data center, and branch office connectivity.
Features and benefits

• Compact 10/100/1000BASE-TX, Gigabit Ethernet (GE) and 10GE port capabilities with a GE/10GE combination variant in a 25 Gb/s (full duplex) adapter

• Nokia’s FP2 silicon-based IOM3-XP provide both speed and functionality, with low total cost of ownership

• High-performance line-rate Internet mix forwarding with advanced services enabled

• ITU-T Synchronous Ethernet (Sync-E) and IEEE 1588v2 to distribute precision network timing and synchronization over Ethernet

• Support for a wide range of pluggable optical modules (SFP and XFP) that enable a variety of black and white wavelengths and distances. Optics also support CWDM and DWDM equipment for greater flexibility

• Pluggable optics with Digital Diagnostic Monitoring (DDM) are supported for extended operations, administration, and maintenance (OAM) and improved installation and activation

• Field upgrades are simplified, as hot-swappable MDA-XP types can be exchanged in-service to change media type and physical interfaces, as required

• Management is provided by the Nokia Network Services Platform (NSP)

Table 1. Nokia 7750 SR Ethernet MDA-XP summary

<table>
<thead>
<tr>
<th>Ethernet MDA-XP type</th>
<th>Ports per MDA</th>
<th>Connector type</th>
<th>Maximum density</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/100/1000BASE-TX</td>
<td>48</td>
<td>8 x mini RJ-21</td>
<td>864, 960, 480</td>
</tr>
<tr>
<td>1000BASE</td>
<td>10, 12, 20</td>
<td>SFP</td>
<td>180, 216, 360, 200, 240, 400, 100, 120, 200</td>
</tr>
<tr>
<td>10GBASE/1000BASE</td>
<td>2/12</td>
<td>XFP/SFP</td>
<td>36/216, 40/240, 20/120</td>
</tr>
<tr>
<td>10GBASE (LAN/WAN PHY)</td>
<td>1, 2, 4</td>
<td>XFP</td>
<td>18, 36, 72, 20, 40, 80, 10, 20, 40</td>
</tr>
</tbody>
</table>

Table 2. Nokia 7450 ESS Ethernet MDA-XP summary

<table>
<thead>
<tr>
<th>Ethernet MDA-XP type</th>
<th>Ports</th>
<th>Connector type</th>
<th>Maximum density</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/100/1000BASE-TX</td>
<td>48</td>
<td>8 x mini RJ-21</td>
<td>960, 480</td>
</tr>
<tr>
<td>1000BASE</td>
<td>10, 12, 20</td>
<td>SFP</td>
<td>200, 240, 400, 100, 120, 200</td>
</tr>
<tr>
<td>10GBASE/1000BASE</td>
<td>2/12</td>
<td>XFP/SFP</td>
<td>40/240, 20/120</td>
</tr>
<tr>
<td>10GBASE (LAN/WAN PHY)</td>
<td>1, 2, 4</td>
<td>XFP</td>
<td>20, 40, 80, 10, 20, 40</td>
</tr>
</tbody>
</table>
Technical specifications

Dimensions*
- Height: 3.6 cm (1.4 in)
- Width: 19 cm (7.5 in)
- Depth: 17.8 cm (7 in)

Weight*
- 48-port 10/100/1000BASE-TX MDA-XP; 1.3 kg (2.9 lb)
- 20-port GE MDA-XP (SFP); 0.64 kg (1.4 lb)
- 12-port GE MDA-XP (SFP); 1.4 kg (3.1 lb)
- 10-port GE MDA-XP (SFP); 0.64 kg (1.4 lb)
- 4-port 10GE MDA-XP (XFP); 0.95 kg (2.1 lb)
- 2-port 10GE MDA-XP (XFP); 0.77 kg (1.7 lb)
- 1-port 10GE MDA-XP (XFP); 0.45 kg (1 lb)
- 2-port 10GE + 12-port GE MDA-XP (XFP/SFP); 1.57 kg (3.5 lb)

* Dimensions and weights are approximate and subject to change. Refer to the appropriate Installation Guide for the current dimensions and weights.

Refer to the 7750 SR data sheet and product documentation for full system details on safety standards, compliance agency certifications and protocol support.

About Nokia

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Document code: SR1808027836EN (August) CID156715