Flexible Bandwidth using GFP and VCAT
For IP packet transport, the V-Node supports to establish transparent paths between Ethernet. For efficient and reliable Ethernet transport, Generic Framing Procedure (GFP) and VC-n-Xv Virtual Concatenation (VCAT) are adopted. The GFP adaptation encapsulates Ethernet MAC frames for subsequent transport over SDH networks. The VCAT enables the GFP adaptation to establish flexible bandwidth path.

LCAS
The LCAS provides a control scheme to hitless increase or decrease the bandwidth of a VCAT Group link to meet the bandwidth needs of the application. In addition, the LCAS automatically decrease the bandwidth if a VCAT member experiences a failure in the network, and increase the bandwidth when the network failure is repaired.

Various service support
The V-Node provides various interface packages, such as Gigabit Ethernet, Fast Ethernet, STM-16, STM-4, STM-1, 45M, 34M and, 2M. The V-Node main shelf has 13 interface package slots.

Bandwidth upgrade up to STM-16
For future traffic growth, the V-Node can be economically upgraded to dual 2-Fiber STM-16 ring system by just replacing optical interfaces.

152x152 VC-4 and 2016x2016 VC-12 matrix for flexible service support
The matrix of the V-Node has flexible granularity of 152x152 VC-4 and 2016x2016 VC-12. This composite matrix enables VC-12 traffic grooming among VC-4 containers.

Integrated management with NEC’s other SDH and SpectralWave DWDM systems
The INC-100MS offers total management of the NEC’s photonic transport network composed of the SpectralWave C-Node, U-Node, the SpectralWave DWDM systems and the other SMS series SDH products.
**Interfaces**

- STM-16 (Max. 6ports)
- STM-1 (Max. 52ports)
- 10/100Base (Max. 66ports)
- 34Mbit/s (Max. 30ports)

**Power Requirements**

- Voltage: −38.4 to −60V DC
- −48 to −72V DC

**Environment**

- Operating Temperature Range: −5°C to 45°C
- Relative Humidity: 5 to 90% without condensation

**Cross connect capacity**

- VC-4: 152 x 152
- VC-3: 96 x 96
- VC-12: 2016 x 2016

**Specification for Layer-2 switched service**

- IEEE 802.1Q Port/Tag VLAN
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1p Prioritization
- IEEE 802.3x Flow Control
- IEEE802.3ad Link Aggregation
- Jumbo Frame

**Physical Dimensions**

- Shelf: 493 (H) x 482 (W) x 280mm (D)

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**Technical Summary**

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**Safety Precautions**

- Before installing, connection or using this product, be sure to carefully read and observe the cautionary and prohibited matters provided in the instruction manual.

- The company names and product names given in this catalog are trademarks or registered trademarks of the respective companies.

- The configuration or specifications are subject to change without prior notice due to continual improvements.

**For inquiries, contact:**

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**Diagram**

- INC-100MS
- U-Node BBM
- SpectraWave DWDM
- Flexible bandwidth for Ethernet
- Dual Node interconnection