

# SpectralWave® C-Node

## STM-4/1 Compact Multi-Service Platform

### ■ Compact installation

The C-Node is implemented in one small box. The C-Node is installed into 19inch Rack/ ETSI Rack or put on the wall.

### ■ Wide Varsity of Network topology

The C-Node flexibly supports various network topologies such as linear, ring and so on. In addition, multi-ring configuration on a single NE is supported.

### ■ Wide Varsity of interface

The C-Node provides various interface packages, such as 10/100BASE Ethernet, STM-4, STM-1, 45Mbit/s, 34Mbit/s and 2Mbit/s.

### ■ Flexible bandwidth using GFP, VCAT and LCAS

For IP packet transport, the C-Node supports to establish transparent paths between Ethernet. For efficient and reliable Ethernet transport, VC-n-Xv virtual concatenation (VCAT) and GFP (Generic Framing Procedure) are adopted.

The GFP adaptation encapsulates Ethernet MAC frame for subsequent transport over SDH networks. The VCAT enables the GFP adaptation to establish flexible bandwidth .

While VCAT provides the ability to "right size" SDH, Link Capacity adjustment scheme (LCAS) increase the flexibility of VCAT by allowing dynamic reconfiguration of VCAT channels.

The LCAS provides a control scheme to hitless increase or decrease the bandwidth of a VCAT Groups 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.

### ■ Point to Point/Multipoint Ethernet Service

The C-Node can establish Ethernet Line (E-Line) service type of point-to-point paths. The bandwidth assignment itself is flexible and can be hitless changed by using VCAT and LCAS methods.

The E-Line service using L2SW sharing the bandwidth of VCAT paths among plural connections.

The E-Line type of connection service using L2SW can be easily expanded to Ethernet LAN (E-LAN) service type of multipoint-to-multipoint connections. Security among the connections is guaranteed by VLAN method.

### ■ Superior Scalability

The C-Node supports STM-4 and STM-1 as aggregate interface. Operator can easily and rapidly upgrade the C-Node from STM-1 to STM-4 system by just replacing and adding modules. It makes possible to flexibly and economically accommodate to increasing traffic demands.

### ■ Integrated Management

The INC-100MS Network Management System offers total management of the NEC's photonic transport network composed of the SpectralWave V-Node, SpectralWave U-Node, SpectralWave DWDM systems and other SMS series SDH products.



# Technical Summary

## ■ Interfaces

STM-4 (Max. 4ports)	STM-1 (Max. 10ports)
10/100BASE (Max. 16ports)	45Mbit/s (Max. 12ports)
34Mbit/s (Max. 12ports)	2Mbit/s (Max. 128ports)

## ■ Cross connect capacity

VC-4	16 x 16 (or 8 x 8)
VC-12	1008 x 1008 (or 512 x 512)

## ■ 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
Jumbo Frame	

## ■ Environment

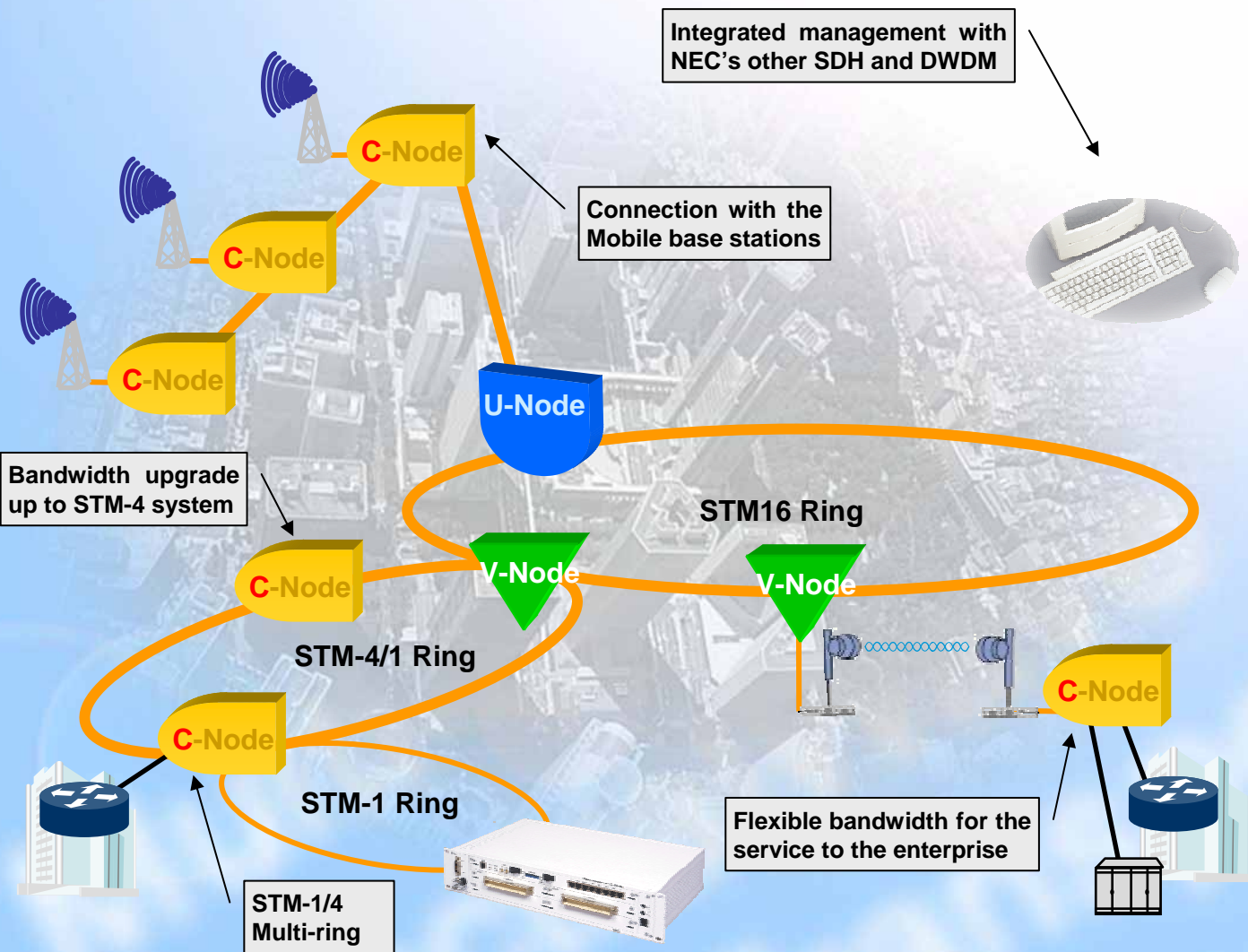
Operating Temperature Range	0°C to 45°C
Relative Humidity	5 to 90% without condensation

## ■ Power Requirements

Voltage	- 36 to - 72V DC
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## ■ Physical Dimensions

Shelf	88 (H) x 482 (W) x 300mm (D)
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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.

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### For inquiries, contact :

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