

SpectralWave

MN2200

STM-16/4/1 Multi-Service Platform

COMPACT NEXT GENERATION MSP DELIVERS COST-EFFECTIVE SERVICES AND INTEGRATED FUNCTIONALITY

The SpectralWave MN2200 is a multi-service optical transport system designed to simplify service provider networks, dramatically reducing both operational and capital expenditures. The system enables the delivery of SDH services and advanced data services including Fast Ethernet (FE) and Gigabit Ethernet (GE) rapidly, efficiently and cost-effectively.

The highly integrated MN2200 platform unifies the functions of a next-generation SDH Add-drop Multiplexer (ADM), Digital Cross-Connect System (DCS) and Ethernet aggregation switch plus Resilient Packet Ring (RPR) in a single carrier-class shelf.

CENTRALIZED CROSS-CONNECT DESIGN

The SpectralWave MN2200 utilizes a centralized cross-connect architecture, due to its extensive network adaptability, the MN2200 is suitable for access, LAN and MAN networks. Its cross-connect architecture enables a pay-as-you-grow strategy based on the required number of optical interfaces and the interface rate.

MULTI-SERVICE PROVISIONING

The SpectralWave MN2200 supports continuous and virtual concatenation at VC-12/3/4 in SDH. It also supports Generic Framing Procedure (GFP), Link Capacity Adjustment Scheme (LCAS) and provides built-in Ethernet service functions. GFP protocol is used to map FE/GE services into NxVC-12/3/4 for transmission. In addition, the platform supports Layer 2 switching and flow control.

FULL SUITE OF PROTECTION SCHEMES

The SpectralWave MN2200 supports a full suite of network-level protections including :SDH 1+1 MSP; 1:N MSP; 2F MS-SPRing. The platform supports 1+1 hot redundant control and timing (clock) modules. The MN2200 also provides electrical protections for E1.

- **MULTI-SERVICE PROVISIONING**
- **SMALL FOOTPRINT**
- **PAY-AS-YOU-GROW**
- **FULL PROTECTION SCHEMES**



Technical Summary

HARDWARE

SYSTEM CHASSIS

DIMENSIONS

- 175 x 436 x 301mm (HxWxD)

WEIGHT

- 15kg

OPERATING HUMIDITY

- 5 to 95% without condensation

OPERATING TEMPERATURE

- 5 °C to 40 °C (Normal operating range)

POWER

- -48VDC, -39.5V to -60V

POWER CONSUMPTION

- 135W fully loaded

COMPLIANCE

- FCC Part 15 Class A, UL1950, VCCI, latest ITU-T standards, Telcordia GR-253-CORE, IEEE802.3, 802.3u/ad, 802.1D/Q/p/s/w EN 55022(Class A) EN 50024, EN60950 EN 60825

INTERFACE NETWORK

STM-16

- 1 port /module, max. 4 ports /shelf

STM-4

- 1/2/4 ports /module, max.20 ports /shelf

STM-1

- 1/2/4 ports /module, max.32 ports /shelf

TRIBUTARY

10/100Base-T ETHERNET

- 8 ports /module, max.48 ports /shelf

GIGABIT ETHERNET

- 4 ports /module, max.24 ports /shelf

STM-1 ELECTRICAL

- 4 ports /module, max.24 ports /shelf without protection

E1

- 32 ports /module, max.192 ports /shelf without protection
- 32 ports /module, max.63 ports /shelf with protection

E3/D3

- 3 ports /module, max.18 ports /shelf without protection

CROSS-CONNECTION

SDH CAPACITY

- 80x80 VC-4 and 2016x2016 VC-12

TYPE

- Unidirectional, Bi-directional, Broadcast, Multicast, Drop and Continue

DATA SERVICE

FRAMING AND CONCATENATION

- GFP, Continuous concatenation and Virtual concatenation at VC-12/VC-3/VC-4, LCAS

10M/100M BASE-T/FX

- 802.1D/p/Q/s, 802.3x/ad, VLAN Tagging, VLAN Trunking, Rate limiting from 64kbps with 64kbps granularity

GIGABIT ETHERNET

- 802.1D/p/Q/s, 802.3x/ad, VLAN Tagging, VLAN Trunking, Jumbo Frame

PROTECTION SCHEMES

- SDH: 1+1 MSP, 1:N MSP, 2F MS-SPRing, SNCP for VC-12/VC-3/VC-4
- Tributary: 1:5 E1 CFP

TIMING/SYNCHRONIZATION

- SSM, External Bits Clock of Stratum 3 or better Primary and secondary E1 external timing reference, STM-n line timing reference, Holdover, Free-run

NETWORK MANAGEMENT

- TL1, LCT (Local Craft Terminal)
- SpectralWave MN9100



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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