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SpectralWave
MN2300
STM-16/4/1 Multi-Service Platform

THIRD GENERATION MSP DELIVERS COST-EFFECTIVE SERVICES AND INTEGRATED FUNCTIONALITY

The SpectralWave MN2300 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 MN2300 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 MN2300 utilizes a centralized cross-connect architecture. Because of this extensive network adaptability, the MN2300 is suitable for access, LAN, MAN and backbone 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 MN2300 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 MN2300 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 MN2300 also provides electrical protections for E1 and DS3/E3/STM-1e.

- **MULTI-SERVICE PROVISIONING**

- **MULTIPLE TOPOLOGY SUPPORT**

- **PAY-AS-YOU-GROW**

- **FULL PROTECTION SCHEMES**

- **1:N ELECTRICAL PROTECTION**

Technical Summary

HARDWARE

SYSTEM CHASSIS

DIMENSIONS
- 531 x 436 x 281mm (HxWxD)

WEIGHT
- 23kg

OPERATING HUMIDITY
- 5 to 95% without condensation

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

POWER
- –48VDC

POWER CONSUMPTION
- 155W 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.32 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.20 ports /shelf
  without protection

E1
- 63 ports /module, max.378 ports /shelf
  without protection

E3/D3
- 3 ports /module, max.15 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

RPR
- A0/A1/B-CIR/B-EIR/C, Wrapping/Steering

10M/100M BASE-T/FX
- 802.1D/p/Q/s, 802.3x/ad, VLAN Tagging, VLAN
  Trucking, Rate limiting from 64kbps with 64kbps
  granularity

GIGABIT ETHERNET
- 802.1D/p/Q/s, 802.3x/ad, VLAN Tagging, VLAN
  Trucking, 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, 1:4 E3/DS3 CFP,
  1:4 STM-1e 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.

For inquiries, contact :