HSN8300NA PRODUCT OVERVIEW

HSN8300NA is a member of the cost-effective and highly scalable flexiHaul product line. Like the other systems in the flexiHaul product line, the HSN8300NA has a flexible, pay-as-you-grow architecture with plug-in service cards, thereby allowing the customer to choose any combination of supported services as well as facilitate easy operation and maintenance. This 4U shelf includes six service slots used to transport service via CWDM or DWDM based on transponder type over dark fiber.

HSN8300NA supports point to point, linear chain, point to multi-point and ring with ring protection. In addition, HSN8300NA is efficiently managed by the HSN8800 EMS, which provides the necessary tools for both traffic provisioning and overall system monitoring.

PRIMARY APPLICATIONS

- Fronthaul transport at 4G and 5G cell sites
- Ethernet midhaul and backhaul integrated solution
- Wavelength aggregation

ARCHITECTURE

- Compact design
- Modular architecture
- Optionally use the HSN7200NA passive mux shelf to expand fiber fan-out to any HSN8000NA series chassis

OAM and MAINTAINABILITY

- Alarms, statistics, performance monitoring
- Remote management via optical supervisory channel (OSC)
- Local / remote logical loopbacks
- Connectivity, signal level, delay, distance measurement

KEY FEATURES

- Multi-protocol support
  - CPRI (option 2, 3, 4, 5, 7), OBSAI 3G/6G
  - eCPRI/ROE/xRAN up to 25Gbps
  - GbE, 10Gbe, 25Gbe
- System latency per transponder without FEC
  - Less than 1.4 μs
- Jitter
  - Less than ± 0.35 UI
- Ring protection switching less than 50 ms
- Delay equalization for ring protection
- FEC (Forward Error Correction) support
- Flexible topology architecture
  - Point to point, linear chain, ring, point to multi-point, BiDi linear

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HSN8300NA SYSTEM SPECIFICATION

System Capacity
Service slots 6
Channel capacity Up to 24 channels
CWDM/DWDM ITU-T G.694.1, ITU-T G.694.2
Transmission distance Up to 40 km

Channel Interface
Service interface CPRI (option 2, 3, 4, 5, 7), OBSAI 3G/6G, eCPRI/ROE/xRAN up to 25Gbps, GbE, 10GbE, 25GbE
Optical connector type LC / UPC

Transponder Options
CPRI 4 ports CPRI (option 2, 3, 4, 5, 7), OBSAI 3G/6G, GbE, 10GbE, eCPRI/ROE/xRAN/Ethernet 3 ports eCPRI/ROE/xRAN @ 25G, 25GbE

Configurations/Power/Environmental
Topology Point to point, linear chain, point to multi-point, ring, BiDi linear
Power –48V DC(-40 ~ -56V DC)
Environmental Operating: - 40 °C ~ + 65 °C,
Storage: - 40 °C ~ +70 °C
Humidity : Up to 85% (non-condensing)

Protection/ Switching
Switching time <50ms
Operating mode Automatic, manual
Configuration Non-reversible switching, reversible switching

OAM
Fault control Alarm severity : Critical, Major, Minor, Warning
Classification level Performance monitoring Test function 15 min, 1 day
Local / remote loopback Delay measurement
Visual LED Indicators BERT System activity, system failure, Alarms status (Critical, Major, Minor)
Environmental and Office 7 Housekeeping inputs
Alarms 6 Office Alarm outputs

Network Management
Operation EMS (server, client), Local Craft Terminal
Protocols SNMPv2/v3
Physical interface 10 / 100/ 1000 Base-TX

Physical Characteristics
For HSN8300NA Chassis
Dimension 177(H) X 483(W) X 298(D) mm
Weight 11.3kg
Power consumption 280W (Fully loaded)
Mounting type 19” or 23” rack mountable

For HSN7200NA Passive Mux Shelf
Dimension 88(H) X 440(W) X 243.5(D) mm
Weight 3.5kg (only shelf)
Mounting type 19” or 23” rack mountable

Supported Service Modules
RoE3J (3-Port 25G transponder)
Type eCPRI/ROE/xRAN/25GbE
Client/WDM ports 3 / 3
Line monitoring LOS
Performance monitoring SFP/SFP+ DDM
eCPRI delay (one-way) < 1.4 μs

ETU4G (4-Port Ethernet transponder)
Type eCPRI/ROE/xRAN/10GbE/GbE x4
Client/WDM ports 4 / 4
Ethernet monitoring LOS, LF/RF
Performance monitoring SFP/SFP+ DDM, FCS, Frame counter
Ethernet delay (one-way) 2.0 ~ 13.5 μs (depends on frame size)

OTU4G (4-Port enhanced transponder)
Type CPRI 3/4/5/7 x4 ports or CPRI 3/4/5/7 x3 ports +GbE x1 port
Client/WDM ports 4 / 4
Ethernet monitoring LOS
Performance monitoring SFP/SFP+ DDM, BIP, ES, SES, UAS
FEC Support
CPRI delay (one-way) < 0.5 μs(without FEC)
Profile Low latency profile
Standard OAM profile
High link budget profile (FEC enabled)
Support
Delay Equalization

TTU4G (4-Port basic transponder)
Type CPRI 3/4/5/7 x4 ports or CPRI 3/4/5/7 x3 ports +GbE x1 port
Client/WDM ports 4 / 4
Line monitoring LOS
Performance monitoring SFP/SFP+ DDM
CPRI delay (one-way) < 0.5 μs

Main Control Unit (MCU)
Type Main Control Process Unit
Console port RS-232C x1 port
Management port 100 / 1000 Base-TX x2 ports (WAN)
Local Management Port(LMP) 100 / 1000 Base-TX x2 ports (LAN)
LEDs System activity, system failure
System alarm LED : CR/MJ/MN/ACO
WAN/LAN status: Act, Link

Data Communication Unit (DCU/DCUE)
Type Data Communication Unit
OSC ports 6 ports / 8 ports
LEDs Unit status, Link status

Regulatory & Compliance
FCC Part 15 Class A, CE Mark, UL 60950-1, IEC 60950-1
IC (Canada EMI), CB, NEBS Level 3
ATT-TP-76200, Issue 19, June 2014
VZ TPR 9205, Issue 5, October 2011

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