HSN8130NA PRODUCT OVERVIEW

HSN8130NA is a member of the highly scalable and cost-effective flexiHaul™ WDM product line. The HSN8130NA is used to transport CPRI and GbE services from a small cell site as a remote terminal for flexiHaul™ platforms: HSN8500NA, HSN8300NA or HSN8100NA aggregator.

Like the other systems in the flexiHaul product line, HSN8130NA has a flexible, pay-as-you-grow architecture with plug-in service cards, thereby allowing the customer the ability to choose any combination of supported services as well as facilitate easy operation and maintenance. This 1U shelf includes one service slot used to transport service via CWDM or DWDM based on transponder type over dark fiber.

The HSN8130NA supports point to point and linear chain topologies. In addition, HSN8130NA is efficiently managed by the HSN8800 GUI based EMS, which provides the necessary tools for traffic provisioning, integrated test measurement and overall system monitoring.

HSN8130NA

PRIMARY APPLICATIONS

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

ARCHITECTURE

- Compact design
- Modular architecture
- Can be used in linear configuration with HSN8110

OAM and MAINTAINABILITY

- Alarms, statistics, performance monitoring
- Remote management via in-band optical supervisory channel (OSC)
- Local / remote logical loopbacks
- Integrated measurement tools: connectivity, signal level, span latency, 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
- FEC (Forward Error Correction) support
- Flexible topology architecture
  - Point to point, linear chain, point to multi-point, BiDi linear
- OSC Bypass (STEM RT)
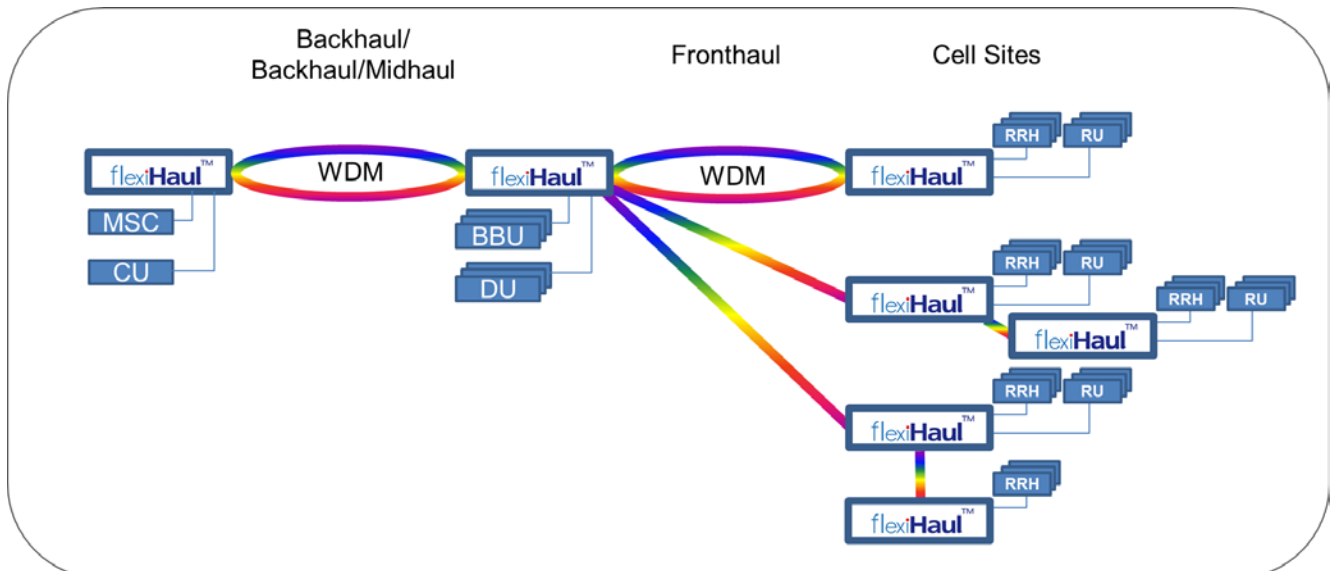
HSN8130NA SYSTEM SPECIFICATION

System Capacity

Service slots	1
Chassis capacity	Up to 4 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
Ethernet	4 ports 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
Power	- 48V DC(- 40 ~ - 56V DC) +24V DC(+20 ~ +28V DC)
Environmental	Operating: - 40°C ~ + 70°C, Storage: - 40°C ~ + 70°C Humidity : 5 to 95% Relative (non-condensing)

OAM

Fault control	Alarm severity : Critical, Major, Minor, Warning
Classification level	Unit, Module, Port
Performance monitoring	15 min, 1 day
Test function	Local / remote loopback Delay measurement BERT
Visual LED Indicators	System activity, system failure, Alarms status (Critical, Major, Minor) Door Alarm
Environmental Alarm	7 Housekeeping Inputs

Network Management

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

Physical Characteristics

Dimension	44(H) X 483(W) X 300(D) mm 17.3(H) X 19.02(W) X 11.81(D) inches
Weight	4kg (8.8 lbs)
Power consumption	40W (fully loaded)
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
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
CPRI/Line monitoring	LOS, LOF, CV, BIP, AIS, RDI
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)
Delay Equalization	Support

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 (MSU)

Type	Main Control Process Unit
Console port	RS-232C x1 port
Management port	10 / 100 Base-TX x2 ports (WAN)
Local Management Port(LMP)	10 / 100 Base-TX x2 ports (LAN)
LEDs	System activity, System failure System alarm LEDs: CRI/MAJ/MIN/ACO WAN/LAN status: Act, Link
OSC port	MDCB1 Mux – x2 ports MDCB2 Mux – x1 port
Housekeeping ports	7 inputs for +24V, 7 inputs for - 48V

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, Issue19,June 2014
VZ TPR 9205, Issue 5, October 2011

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