

## HSN8110A/D POLE MOUNT TRANSPORT MULTIPLEXER PRODUCT OVERVIEW

HSN8110A/D is a member of the highly scalable and cost-effective flexiHaul™ WDM product line. The HSN8110A/D 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.

The HSN8110A/D has its own outdoor enclosure which includes an integrated four-port transponder for CPRI or Gigabit Ethernet service delivery used to transport service via CWDM or DWDM over dark fiber.

The HSN8110A/D supports point to point and linear chain topologies. In addition, HSN8110A/D is efficiently managed by the HSN8800 GUI based EMS, which provides the necessary tools for traffic provisioning, integrated test measurement and overall system monitoring.



## HSN8110A/D Pole Mount WDM

### PRIMARY APPLICATIONS

- CPRI fronthaul transport in C-RAN architecture between BBU and RRHs
- Ethernet backhaul interface for distributed RAN architecture
- Wavelength switching, grooming and aggregation

### ARCHITECTURE

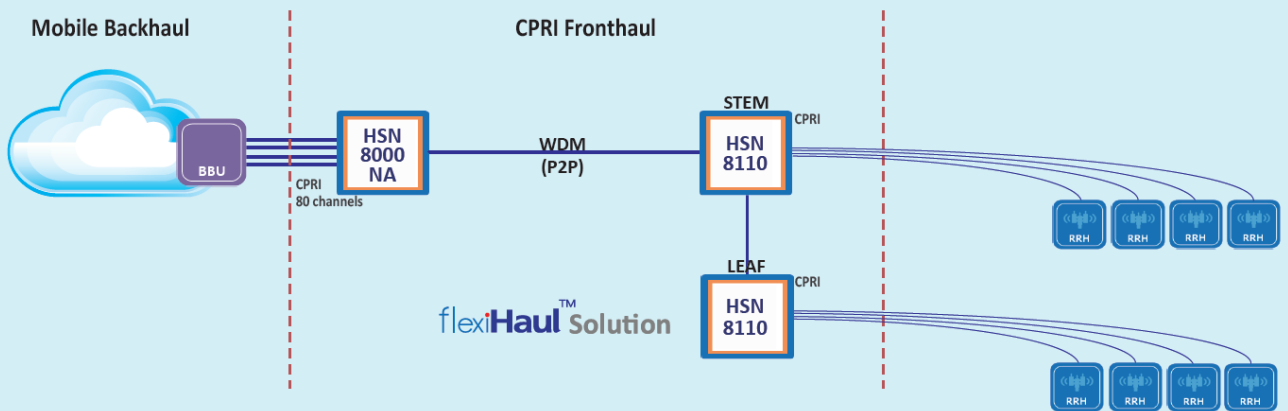
- 4 x CPRI or 3 x CPRI + 1 x GigE
- Two unit linear interconnect for 8 CPRI port transport
- Field changeable WDM

### OAM and MAINTAINABILITY

- Alarms, statistics, performance monitoring
- Remote management via inband optical supervisory channel (OSC)
- Local / remote logical loopbacks
- Integrated measurement tools: connectivity, signal level, span latency, distance

### KEY FEATURES

- Multi-protocol support: CPRI (option 3, 4, 5, 7), GbE
- 4 x CPRI or 3 x CPRI + 1 x GigE
- CPRI delay < 1  $\mu$ s (one-way)
- Jitter: less than  $\pm 0.35$  UI
- FEC (Forward Error Correction) support
- Topology: point to point, linear chain
- Wall and pole mount
- Field changeable WDM
- Enclosure protection IP65
- Water proof optic cable
- GR-3108 Class 4 operating temp: - 40 °C ~ + 70 °C
- Field interchangeable optics with performance monitoring: SFP/SFP+
- OSC Bypass (STEM RT)



# HSN8110A/D SYSTEM SPECIFICATION

## System Capacity

CPRI capacity	Up to 4 x CPRI or 3 x CPRI + 1 x GigE
Wavelength	CWDM: ITU-T G.694.1 DWDM: ITU-T G.694.2(TBD)
Transmission distance	Up to 20 km

## Physical Characteristics

Dimension	376(H) X 276(W) X 159(D) mm 14.8(H) X 10.9(W) X 6.3(D) inches
Weight	13kg (28.7 lbs)
Power consumption	35W (fully loaded)
Mounting type	Wall and Pole

## Channel Interface

Service interface	CPRI (option 3, 4, 5, 7) and GbE
Optical connector type	LC / UPC

## Multi-rate Universal Transponder

4 ports CPRI (option 3,4,5,7) or 3 ports CPRI and 1 port GbE

## Field Changeable Options

CWDM Mux Band 1 (8 wavelengths)  
CWDM Mux Band 2 (8 wavelengths)  
Client & Network pluggable optics common to **flexiHaul™** portfolio

## Configurations/Power/Environmental

Topology	Point to point, linear chain
Power	HSN8110A – AC 90V~240V HSN8110D – DC - 48V(- 40V ~ - 56V), +24V(+20V ~ +28V)
Environmental	Operating Temp: - 40 °C ~ + 70 °C (GR-3108 Class 4) - 40 °C ~ + 46 °C with Solar loading Humidity : < 5 to 100% RH

## 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)
Environmental Alarm	Door Alarm

## 4-Port Enhanced Transponder

Type	CPRI 3/4/5/7x4ports (any rate mix) or CPRI 3/4/5/7x3ports (any rate mix) +GbEx1 port
Protocols	CPRI (option 3, 4, 5, 7), GbE
Client/WDM ports	4 / 4
CPRI/Line monitoring	LOS, LOF, CV, BIP, AIS, RDI
Performance monitoring	SFP/SFP+ DDM, BIP, ES, SES, UAS
FEC	Supported
CPRI delay (one-way)	< 0.5 $\mu$ s (without FEC)
Profile	Low latency profile Standard OAM profile High link budget profile (FEC enabled)
Delay Equalization	Supported

## Network Management

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

## Main Control & Data Communication

Console port	RS-232C x 1 port (via RJ-45)
LAN Management port	10 / 100 Base-TX (via RJ-45)
LEDs	System activity, system failure LAN status: Act, Link OSC: Act, SF CPRI link: Act, SF
OSC port	MMCB1 Mux – 2 ports MMCB2 Mux – 1 port

## Regulatory& Compliance

FCC Part 15 Class A , CE Mark , UL 60950-1, IEC 60950-1  
IC (Canada EMI), CB , NEBS Level 3 Class4, Enclosure  
protection IP65



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