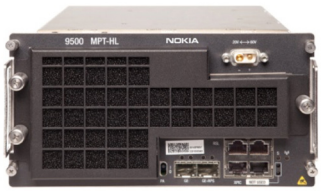
Nokia Wavence

Microwave packet transport for long-haul full-indoor | Release 20 (ANSI)

The Nokia Wavence family includes a range of Microwave Packet Transport (MPT) units for long-haul applications in a full-indoor configuration. Designed to support long-distance, high-capacity, mission-critical applications, the MPT-HLC units provide flexible, secure, scalable and highly reliable networks that also support a seamless TDM-to-packet migration path option. The MPT-HLC units are integrated in the Nokia Network Services Platform for common management with the rest of the Wavence portfolio, enabling consistent operations across end-to-end packet microwave networks. Combined with the Wavence Microwave Service Switch (MSS), the MPT sets the standard for delivering fast, efficient wireless transmission links with flexible networking and simple operations.

	MPT-HLC		MPT-HLC Plus
Applications		• Backbone and trunking • Full indoor configuration	
Physical		• 4.06 in x 7.95 in x 11.14 in (103 mm x 202 mm x 283 mm)	
Interfaces		• One GE port (SFP optical plug-in)	
Radio	• 4, L6, U6, 7, 8, 10.5 and 11 GHz • Up to 1 Gb/s with packet compression • Channels: 5 MHz, 10 MHz, 25 MHz, 30 MHz, 40 MHz, 60 MHz		• L6, U6 and 11GHz • Up to 1 Gb/s with packet compression • Channels: 30 MHz, 40 MHz, 60 MHz
Modulation	• QPSK, 16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM, 512 QAM, 1024 QAM		• QPSK, 16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM, 512 QAM, 1024 QAM, 2048 QAM, 4096 QAM
Weight		• 11.13 lb (5.05 kg)	
Power	• 20 V DC to 60 V DC • 120 to 165 W typical depending on configuration and power level		• -40.5 V DC to -57 V DC • 150 to 175 W typical depending on configuration and power level



MPT-HLC/MPT-HLC Plus


Two MPT-HLCs in a shelf

NOKIA

Technical specifications

Connections

- Optical SFP or SFP cables
- Direct power connection to PDU

Radio

- Two versions:
  - Standard unit with transmit and receive
  - Optional unit with diversity receiver and digital combiner
- 1+0/1+1 HSB/SD/FD
- N+0 LAG L1 with or without SD
- Integrated XPIC (greener and more reliable)
- Maximum TX power: 35 dBm (HLC), 38 dBm (HLC Plus)
- Support for adaptive coding and modulation (ACM)
- Duplex technology: FDD
- Encryption: AES-256
- Timing transport: 1588v2 PTP, SyncE
- ITU-T G.8264 support
- Low latency profile
- High gain profile (MPT-HLC Plus)

Mechanical

- Flexible RF filter configurations
  - Diplexers for compact & cost-effect solutions
  - Stacking filters to support FD and LAG
  - Adjacent Channel Co-Polar (ACCP) filters for maximum spectrum efficiency
- Support for transmitter antenna protection
- Each subrack occupies 2.5 RU in a standard 19–in. rack and holds up to 2 MPT-HLC/MPT-HLC Plus

Networking

- Ethernet interface: One optical SFP plug-in
- Advanced QoS: Support for IEEE 802.1p, Diffserv, TTL and strict priority
- Dynamic scheduling according to air interface changes
- VLAN: IEEE 802.1P, IEEE 802.1Q, Q-in-Q support
- ERPS: ITU-T G.8032
- Ethernet OAM (IEEE 802.1ag, ITU-T Y.1731 BNM, IEEE 802.3ah)

Environmental

- Operating temperature: 23°F to 131°F (-5°C to +55°C)
- Humidity: 0% to 95%, non-condensing

Standards compliance

Regulatory

- FCC Part 101
- ISED SRSP
- NTIA

Safety and environmental

- Telcordia GR-1089
- Telcordia GR-63
- IEEE 1613

Metro Ethernet Forum

- MEF 2.0, MEF 8, MEF 9, MEF 14, MEF 22

Services

- Architecture and design
- Network planning
- Equipment and site engineering
- Installation services
- Integration services
- Performance analysis, network assessment, DCN, synchronization and QoS assessment
- Migration to packet microwave management
- Maintenance
  - 24x7 technical support
  - Return for repair or advanced exchange

CE 2.0 MEF CERTIFIED

About Nokia

We create the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing.

From the enabling infrastructure for 5G and the Internet of Things, to emerging applications in digital health, we are shaping the future of technology to transform the human experience. networks.nokia.com

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