Nokia 9500 Microwave Packet Radio

Microwave packet transport for shorthaul | Release 7.1 (ANSI)

The Nokia 9500 Microwave Packet Radio (MPR) family includes a range of Microwave Packet Transport (MPT) units for shorthaul applications. These MPT units operate in the standard frequency bands and are designed to provide high-capacity reliable backhaul for wireless 3G and 4G macro cells and segments applications. The MPT-HC-HQAM units are integrated in the Nokia 5620 Service Aware Manager for common management with the rest of the 9500 MPR portfolio, enabling consistent operations across end-to-end packet microwave networks. Combined with the 9500 MPR Microwave Service Switch (MSS), the MPT sets the standard for delivering fast, efficient wireless transmission links with flexible networking and simple operations.

MPT-HC-HQAM	
Application	• Macro cell backhaul (access and hub) • Split-mount or standalone configuration
Physical	• 235 mm x 235 mm x 130 mm (9.2 in. x 9.2 in. x 5.1 in.) with external diplexer • 235 mm x 235 mm x 150 mm (9.2 in. x 9.2 in. x 5.9 in.) with internal diplexer
Interfaces	• Two GE ports (RJ45 PfoE and SFP optical plug-in)
Radio	• 5.8 GHz to 38 GHz (FDD) • 470 Mb/s standard • Support for packet compression • Channels: 10 MHz to 60 MHz
Modulation	• 4 QAM to 2048 QAM
Weight	• 7.8 kg (1.2 lb) with external diplexer • 6 kg (13.2 lb) with internal diplexer
Power	• PfoE • -48 V +/-20%, +24V +/-20% optional • 36 W nominal (full-outdoor and split-mount modes)

MPT-HC-HQAM

Pole-mounted MPT-HC-HQAM

NOKIA

Technical specifications

Indoor/outdoor connections

- Maximum cable length
  - 100 m (328 ft) with Cat5e cable
  - 450 m (1476 ft) with optical connectivity

Radio

- 1+0/1+1 HSB/SD/FD
- N+0 LAG L1 with or without SD
- Integrated XPIC (greener and more reliable)
- Maximum Tx power: Up to 32 dBm
- Support for adaptive coding and modulation (ACM)
- Duplex technology: FDD
- Encryption: AES-256
- Timing transport: IEEE 1588v2 PTP, SyncE
- ITU-T G.8264 support

Networking

- Ethernet interface: One electrical 100/1000BaseT, 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, IEEE 802.3ah)

Environmental

- Operating temperature: -40°C to +46°C (-40°F to 115°F) plus solar loading

Standards compliance

Regulatory

- FCC Part 101/15, Industry Canada SRSP

Safety

- Telcordia® GR-1089

EMC

- GR-1089, GR-63
- 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

Nokia Oyj
Karaportti 3
FI-02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000

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