Nokia Wavence

Ultra-Broadband Transceiver Twin XP (ETSI/ANSI)

Nokia Wavence Ultra-Broadband Transceivers (UBT) provide high-capacity, low latency microwave transport ideal for long-haul applications. The UBT-T XP is an outdoor dual transceiver unit operating in the lower frequency bands, 6 to 11 GHz, with a market leading RF output power of +37 dBm. Using advanced radio and carrier aggregation technologies, the UBT-T XP efficiently supports backhaul with both multi-gigabit capacity and low latency.

The UBT-T XP exudes innovative product design, with a hardware split between the active wideband radio part and the Antenna Interface Module (AIM), a passive part interfacing to the antenna. Notably, the UBT-T XP supports ETSI or ANSI channels belonging to different sub-bands in the same unit. This enables highly flexible deployment options, with the hardware and branching configuration being implemented inside the AIM, simplifying installation, maintenance and spare parts management.

UBT-T XP	
Application	• Mobile backhauling, private network backbone and rural last mile connectivity • Split-mount, Standalone or Full Outdoor nodal configuration with Networking Interface Module (NIM)
Physical	• 260 mm x 305 mm x 120 mm • (10.2 in. x 12.0 in. x 4.7 in.)
Interfaces	• 1 x DC port • Three GE ports: (1 x 100/1000 Base T RJ45 and 2 x 1/2.5/10 Gb Optical SFP) • 1 XPIC/MIMO port • 100x1000 Base T RJ45 used as default management port or as user port
Radio	• Wideband radio capability • RF Power output: 37 dBm • L6, U6, 7, 8 and 11 GHz (FDD) • Dual-band 6+11 GHz • Dual carrier in one box • 2.5 Gbps standard (1.3 Gbps per carrier) • Channels: 2 x 10-112 MHz
Modulation	• 4 QAM to 4096 QAM (8196 QAM capable)
Weight	• 8.9 kg (without AIM)
DC Power	• -48 V (-30V to -57V) • 175 W (dual carrier 2+0)

Technical specifications

Indoor/outdoor connections

- Maximum electrical cable length 100 m (328 ft) with Cat5e cable
- Longer distance with optical fiber (depends on fiber type)

Radio

- Dual carrier in one box
- 1+0/2+0/4+0/2+2 HSB/SD
- Carrier aggregation
- Embedded LAG L1
- Latency one way down to 60 µsec
- Typical Tx power: 37 dBm
- Support adaptive coding and modulation (ACM)
- Duplex technology: FDD
- Encryption: AES256-CTR
- Timing transport: IEEE 1588v2-PTP, SyncE
- ITU-T G.8264 support

Antenna Interface Module

- Configuration: OMT+diplexers, Coupler+diplexers, Diplexers only

Networking

- Optional NIM support
- 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)
- L3 VPN support
- SDN support
- Netconf/Yang support

Environmental

- Operating temperature: -40°C up to +55°C (-40°F up to +131°F)
- ETSI Class 4.1 (EN 300019-1-4), ANSI GR 3108 Class 4, GR-950, GR-63
- IP 67

Standards compliance

Regulatory

- Radio Equipment Directive 2014/53/EU – RED
- EN 302 217, FCC Part101, ISED Canada

Safety

- EN 60950-1, EN 60825-1, 60825-2, GR-1089, GR-3108

EMC

- EN 301 489-1, EN 301 489-4, GR-1089, IEEE1613

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
- Maintenance 24x7 technical support
- Return for repair or advanced exchange

Management

- Secure FTP for software download and backup
- IPv4/IPv6 management
- Embedded web browser for network element configuration and monitoring
- Intuitive supervision systems
- SNMP agent with TCP/IP rerouting capability
- Nokia NSP Network Services platform

About Nokia

At Nokia, we create technology that helps the world act together.

As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world.

Nokia OYJ
Karakaari 7
02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000
CID 212555