Nokia Wavence

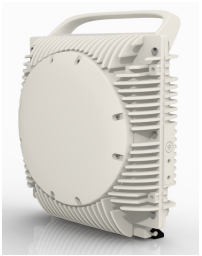
Ultra-Broadband Transceiver Millimeterwave 80 | Release 20 (ETSI/ANSI)

The Nokia Wavence Ultra-Broadband Transceivers (UBT) provide high-capacity, low latency microwave transport for shorthaul and small cells backhaul applications. The UBT-m 80 is a compact radio unit operating in the E-Band. Using the most advanced radio technologies and multi-frequency carrier aggregation, the UBTs support backhaul and Ethernet fronthaul evolutions with multi-gigabit capacities and low latency transport with best in class system gain.

The UBT-mU is integrated in the Nokia Network Services Platform for common management and fully compatible with the Nokia Microwave Service Switches (MSS) and the rest of the Nokia microwave portfolio.

The UBT-mU is a particular member of UBT-m family, as it encompasses a flat antenna of 38dBi gain. The UBT-mU can be attached directly on a pole or a wall, making it almost invisible.

	UBT-m 80
Application	• Small Cell backhaul • Macrocell backhaul in dense urban environment • Split-mount or standalone configuration
Physical	240mm x 220mm x 88 mm (9.4 in. x 8.7 in. x 3.46 in.)
Interfaces	• 1 x DC port • Three GE ports: (1 x 100/1000 Base T RJ45 PFoE and 2 x 1/2.5/10 Gbit Optical SFP) • 1 x XPIC port • 100x1000 Base T RJ45 used as default management port or as user port
Radio	• 71-76/81-86 GHz (FDD) • 10 Gb/s standard • 10 Gb/s in XPIC • Channels: 62.5 MHz to 2GHz
Modulation	• BPSK to 512QAM • Support for Adaptive Baud Rate
Weight	• 3.8kg
Power	• -48 V (-30V to -57V) • PFoE • 50 W



UBT-mU with embedded antenna

Technical specifications

UBT-m 80

Indoor/outdoor connections

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

Radio

- 1+0, 2+0, 1+1 HSB
- Carrier aggregation
- XPIC support
- Typical Tx power: 16 dBm
- Support for adaptive coding and modulation (ACM)
- Latency one way down to 10 usec
- Duplex technology: FDD
- Timing transport: IEEE 1588v2-PTP, SyncE
- ITU-T G.8264 support

Antenna

- Gain 38dBi
- Class 3
- embedded in the UBT-mU

Networking

- Ethernet interface: One electrical 100/1000Base-T, two (1G/2.5G/10G) optical SFP+ plug-ins
- 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

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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