



NetBeam 1G1

The NetBeam 1G1 radio delivers ultra-high capacity wireless point-to-point Ethernet connectivity that future-proofs your backhaul network. With an aggregated throughput of 1000 Mbps over the uncongested 71-76 GHz spectrum using TDD, service providers and businesses can deploy affordable, spectrum efficient, high capacity wireless links that are easy to install and maintain.

The NetBeam 1G1 radio is based on Netronics' advanced integrated-silicon technology, which increases reliability and reduces size and cost. The result is a very small, very light radio with a 90-year MTBF and an unbeatable price/throughput.

The E-band spectrum is uncongested, even in dense urban areas. Use of a high-gain, pencil-beam antenna guarantees available spectrum anywhere and maximizes spectrum re-use. E-band also offers low licensing fees and quick licensing processes.

The NetBeam 1G1 has MEF-compliant integrated Carrier Ethernet that streamlines operations with bandwidth-aware QoS, service management and OAM. For mobile operators, built-in synchronization with Sync-E or 1588V2 ensures smooth performance over packet backhaul.

Product Highlights

- Future-proof Gigabit throughput, ready for LTE, LTE-A and small cell rollouts
- Asymmetric capacity configuration, for improved spectrum efficiency through a more precise match of user upload/download patterns
- Always find spectrum in the 71-76 GHz E-band. Thanks to a narrow beam width, there is zero interference. It's also lightly licensed in most of the world, with lower costs and an extra quick licensing process
- Carrier Ethernet inside – streamline operations with bandwidth-aware QoS, service management and OAM
- Integrated timing over packet SyncE, 1588 schemes for your packet backhaul networks
- Deploy in cascade, G.8032 ring or any high resilience topology with a built-in Gigabit switch and extra ports, and standards-based networking
- Proven high availability in any weather condition (including monsoons and hurricanes) so your users enjoy consistently high performance.
- Zero touch installation with activation from the NOC



Product Specifications

Radio

Frequency Band	71-76 GHz
Duplexing Scheme	TDD
Modulation	QPSK-1/QPSK-2/QPSK-3/QAM16/QAM64
Adaptive Rate	Hitless adaptive bandwidth, coding and modulation, boosting system gain by 25 dB
Throughput	Up to 1000 Mbps aggregated (with asymmetric/symmetric downlink/uplink rate)
Link Budget (BER=10 ⁻⁶)	171 dB (including 1 ft antenna gain)
Interfaces	2xGbE combo ports, each either RJ-45 or SFP slot
Antenna	Integrated 1 ft (31 cm), 43 dBi
Power	PoE+ (IEEE 802.3at with power boost) Wide-voltage input: ±21+57 VDC Power supply input redundancy
Ethernet features	VLAN (IEEE 802.1q) and VLAN stacking (Q-in-Q, IEEE 802.1ad Provider Bridge) IEEE 802.1d Transparent Bridging QoS, traffic shaping and policing MEF 9,14 and 21 compliant Ethernet OAM and CFM (IEEE 802.1ag / ITU-T Y.1731 / IEEE 802.3ah) Ethernet Ring Protection (ITU-T G.8032) Jumbo frames up to 16k
Synchronization	IEEE 1588v2 Optimized Transport Synchronous Ethernet ITU-T G.8261/8262/8264
Network Topologies	Ring, daisy chain, mesh
Encryption	AES 128-bit and 256-bit
Management, provisioning & commissioning	Web GUI (one click management of local & remote units), embedded CLI, SNMPv2/3, in-band, out-of-band Zero touch turn-up, TACACS+, RADIUS
Regulatory	ETSI EN 302 217, FCC 47 CFR part 101, CE marked, EMC, safety UL60950

Environmental

Operating temperatures	-45°C to +55°C
Ingress protection rating	IP67
Dimensions	
ODU	(H x W x D) - 24.5 cm x 22.5 cm x 5 cm (9.7" x 8.9" x 2")
ODU + 1 ft antenna	(Dia. x Depth) - 31 cm x 13 cm (12.2" x 4.3")
Weight	
ODU + 1 ft antenna	3.5 kg (7.7 lbs)

