

NetLink H[®]

2x300, 5x300 & 5x300 D

Ultra High Speed Wireless Backbone

NetLink H is an all-outdoor, high-performance solution with more effective throughput. The product answers the growing need for higher bandwidth capacity, by combining up to 250 Mbps throughput with TDM and Ethernet transport which maximizes spectral efficiency for high performance and long distance connectivity. Thanks to its 2x2 MIMO capability the radio operates in both LOS (line-of-sight) and NLOS (non-line-of-sight) environments and offers increased link availability for enhanced Qos using dual polar antennas. The NetLink H product family of wireless point-to-point bridging solutions for license-exempt bands, provides an efficient and highly secure solution for enterprise wireless connectivity applications and backhaul services between two remote locations and co-location applications.



Range of Applications

- Access backhauling
- Video surveillance applications
- Leased-line replacement
- Disaster recovery
- IP telephony
- Video conferencing and remote training
- Building to building connectivity
- Redundant mobile backhaul

Main Features and Highlights

Range of Frequencies

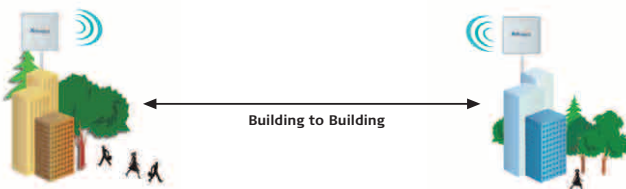
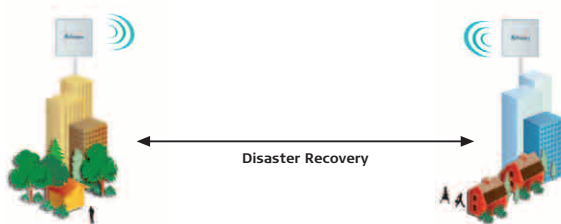
Available in a range of frequency bands from 4.9 - 5.9 GHz, NetLink H features several region-specific output power versions and can be configured to support these frequencies from a single platform.



NetLink H 5x300



NetLink H 5x300D



High-capacity and Spectrum Efficiency

NetLink H provides enhanced capacity of up to 250 Mbps and 5/10/20/40 MHz optional channel size, maintaining cost-effective spectrum use and reduced interference. Adaptive modulation for monitoring link directions reduces errors in operation and flexible bandwidth allocation enables asymmetric or fully symmetric, fixed or dynamically adjusted allocation.

Long Range

Supporting high RF output reaching more than 60 km, NetLink H reduce roll-out costs by utilizing multiple radios for less power and antenna size to reach remote sites.

Reliability

NetLink H is a reliable solution enabling up to 4 separate signal paths by utilizing diverse, physically separated antennas to minimize downtime during extra-fade periods. A robust solution, it features one-plus-one hot-standby link that seamlessly switches to alternative equipment in case of hardware failure.

Specifications

Radio

Radio interface options:

Modulation types
OFDM with BPSK, QPSK, QAM16, QAM64

Supported channel widths

40 MHz, 20 MHz, 10 MHz, 5 MHz

Maximal net throughput

up to 250 Mbps (2x20 MHz channels, non-compressible data)

Output power

Up to 23 dBm

Operating frequencies

4.820 to 5.950 MHz in 5 MHz

Typical link distance

60+ km with external high-gain antennas and high-power models, LOS 30+ km with integrated flat panel antennas and high-power models

Radio interface features

Multiple antenna system Superpacketting
Channel time adjustment
DFS and radar detection

Antenna parameters

Integrated flat panel antenna (4.920-5.920 GHz only) 23 dBi gain Dual linear polarization
Beam width: 9 deg. vertical, 9 deg. horizontal F/B ratio: 30 dB (min)

Data Communications

MAC layer features

ARP filter/proxy MAC/IP filtering Full-fledged 2nd layer switch Intelligent Layer 2 switch

- 802.1q VLAN support, transparent or frame tagging and re-tagging
- Multiple trunk groups
- Automatic storm/flood/bridge loop protection
- Pseudo-radio interface
- Backhaul connected via wired interfaces can be kept in the same management domain

Wired interfaces

Wired network connection: 1x or 2x Ethernet 10/100BaseT (RJ-45)
Optional Ethernet 10/100/1000 BaseT
Wired network interface: IEEE 802.3 CSMA CD,
Ethernet Blue Book Serial interface: RS-232 system console port

E1/T1 interfaces (optional)

Framing: framed/unframed (transparent)
Number of E1 ports: 2, 3, 4 Standard Compliance: ITU-T G.703, G.704, G.823
Line code E1: HDB3 @2.048 Mbps
Line code T1: B8ZS @1.544 Mbps
Connector: RJ-45
Jitter/wander compliance: G.823, G.824
Accurate TDM clock recovery
Loopback, internal, external and adaptive timing

Configuration and Management

Networking features

RIPv2/OSPFv2/static routing Tunneling (Ethernet over IP capable) IP-Firewall NAT (multipool, H.323-aware)
DHCP client /server/relay
QoS enforcer supports frame/packet classification and traffic limiting based on:
IP ToS/DSCP/802.1p tags VLAN/IP/MAC address and protocol/port combinations
RTP voice and TDM payload

Security features

Mutual key-based authentication
Storm/flood protection Password protection Protocol messages encryption
Over-the-air payload encryption (optional)

Management features

SNMPv1/SNMPv3 support MIB II, private MIB
Configurable SNMP Traps
16 QoS priorities mapping (without third-party routers)
Telnet Windows-based GUI configuration and monitoring tool Remote Shell

Physical and Environmental

Dimensions	ODU (external antenna) 240x240x51 mm	ODU (integrated antenna) 305x305x85 mm	SU 50x46x23 mm
Weight	2.1 kg	3.7 kg	0.14 kg

Outdoor units: -40°C -60°C, 100% humidity, condensing (exceeds IP65 rating)

Indoor unit: 0°C -40°C, 95% humidity, non-condensing

Standards Compliance

Radio

FCC pending part 15.247,
ETSI: EN 301 753,
EN 301 893 (1.4.1) (1.5.1),

EMC

FCC pending part 15 class B,
ETSI: EN 301 489-1

Safety

SUL 60950-1, EN 60950-1

Electrical Characteristics

Power

Up to 20 watts
Consumption: 110-240 VAC @ 50/60 Hz



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