## Fraunhofer

WiBACK

WiBACK Node-2-Connect II Datasheet

At a Glance
Developed by Fraunhofer FOKUS, the WiBACK technology offers a flexible, selfmanaging and a cost efficient solution to provide carrier-grade wireless back-haul coverage based on IEEE802.11 hardware.

WiBACK is designed to deliver services providing a high quality of experience. It efficiently bridges the gap between endusers and provider core networks. Sophisticated algorithms dynamically manage the entire backhaul network with respect to topology planning and load distribution. Compared to traditional fixed wireless operator back-haul technologies, the key WiBACK features lead to significantly lower setup (CAPEX) and operational costs (OPEX).

## Contact

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## WiBACK Key Features

- Carrier-Grade Services (Low Latency \& Prioritized Voice) via MPLS
- Transparent Ethernet Bridging incl. VLAN (IEEE802.1q) Trunking
- Self-Management/-Healing/-Maintenance
- Low Energy Footprint, Solar-Ready
- Network Monitoring
- End-to-End Encryption
- Multi Node Support (Clustering of multiple nodes via Ethernet)


## WiBACK Node-2-Connect Facts

| Interfaces |  |
| :--- | :--- |
| $2 \times$ RJ45 | 10/100/1000Tx Ethernet |
| $2 \times$ Wireless LAN | High power backhaul interfaces |


| System |  |
| :--- | :--- |
| Architecture | Embedded Linux, x86 <br> Low Power AMD APU $1 \mathrm{GHz} / 1 \mathrm{~GB}$ |
|  |  |
| WLAN backhaul radios | Atheros chipset, IEEE802.11a/n, $2 \times 2 \mathrm{MIMO}, 20 / 40 \mathrm{MHz}$ |
| Type | $5.180-5.800 \mathrm{GHz}$ unlicensed <br> Frequency range |
| Output power/ sensitivity | $400-900 \mathrm{MHz}, 2.4 \mathrm{GHz}$, or $3 . x \mathrm{GHz}$ licensed (optional) $30 \mathrm{dBm} /-96 \mathrm{dBi}$ |

## Physical

Dimensions / weight
Enclosure
$300 \mathrm{~mm} \times 236 \mathrm{~mm} \times 72 \mathrm{~mm} ; 2.1 \mathrm{~kg}$
NEMA-4, IP65, Aluminum, weather and UV Protected,
4x antenna N-Type female, outdoor,
mast mounting kit included 50-70mm
Power and status signaling

Power
Supply

Consumption
Optional

## PoE 802.at,

Solar-Power ready
Maximum 16 W , average 10 W
Solar charger

