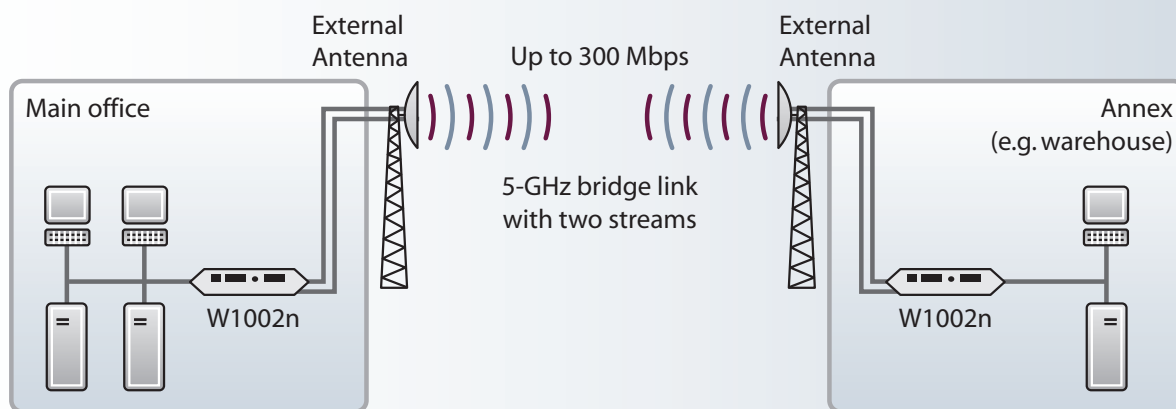


Application Sheet

High-Performance WLAN Bridge

Cabling is the most common method used for the networking of computers and peripheral devices—but frequently it is not the cheapest one and definitely not the most flexible one either. This is especially true if your offices spread over several buildings or if you have an external warehouse. In this case, the operation of wired networks is very time-consuming and therefore not reasonable from an economic viewpoint.



To avoid attenuation loss due to long cables, the access points can be supplied with Power over Ethernet (PoE) and positioned near the antenna.

Advantages:

- ▶ Components from one vendor: Tuned to each other
- ▶ High-performance bridge links according to 802.11n with 2-stream technology and adapted antennas
- ▶ Automated bridge link configuration
- ▶ 2 Ethernet ports at the device
- ▶ IPSec hardware encryption
- ▶ Incl. routing functionality
- ▶ Power over Ethernet

Solution:

WLAN technology permits the cost-effective and simple implementation of point-to-point connections. Using the well-known technology 802.11abg, a maximum gross throughput of 54 Mbps can be achieved at the bridge links. The new 802.11n technology makes the advantages of higher data transmission rates or distances also available for bridge links. This is achieved by the transmission of two separate data streams. Besides the n access point, a dual polarization antenna is used in order to transmit two separate partial streams from one location to another. Compared to the previously applied technology, the gross data rates are nearly increased by a factor of 6, now achieving up to 300 Mbps. The advantages supplied by the 802.11n technology are particularly relevant at distances of up to 5 km. In a practical application example, it was possible to achieve a net throughput rate (TCP/IP) of 75 Mbps at a distance of 900 m. As a supplementary function, the Teldat access points permit the encryption of the transmitted data via IPSec. The accelerator chip is a standard component of the device and permits data transmission rates of up to 90 Mbps. Thanks to the implemented routing functions, the device is able to identify directly whether the data is addressed to the opposite side or not. Compared to mere bridge solutions of other vendors, higher data rates can be achieved for the actual payload in this way.

PROJECT REFERENCES:

► Fipa, 26689 Augustfehn, Germany

WLAN ACCESS POINTS / ANTENNA:

bintec W1002n

802.11n access point for the professional setup of bridge links or for setting up a WLAN infrastructure

- IEEE 802.11a(h)/b/g/n with up to 300 Mbps
- Mimo 2x3
- Three RTNC antenna ports
- PoE-capable (IEEE 802.3af)
- Powerful VPN encryption



bintec W1065n

Outdoor Access Points 802.11n configurable as AP, WDS Repeater, WLAN Client, Bridge for applications in industry with protection class IP65

- Dual Band 2,4 / 5 GHz, selectable with one or two radio modules
- Temperature range -25°C up to + 65°C
- Power over Ethernet
- SFP slot

Dual polarization antenna

- ANT-N-20-5G-dualpol, art. no.: 5500000551
- 5.1 - 5.9 GHz
- Approx. 20 dB gain
- IP 67 outdoor
- 320x320x20 mm
- Delivery incl. pole and wall mounting set



Model	bintec W1002n	bintec W1065n	bintec W12065n
Art. no.	5510000165	5010590013	5010590014
WiFi Standard	a/b/g/h/n	a/b/g/h/n	a/b/g/h/n
Number of Radio modules	1	1	2
IP protection class	-	IP65	IP65



WLAN Bridgeline Bundle

- Art. no.: 5510000226
- 2 x bintec W1002n
- 4 x 0,5m RTNC plug N plug LMR400 (600507)
- 4 x Surge Arrester N plug N jack (600499)
- 4 x 6m N plug N jack LMR400 (5500000847)
- 2 x ANT-N-20-5G Dual Polarization

WLAN Outdoor Bridgeline Bundle

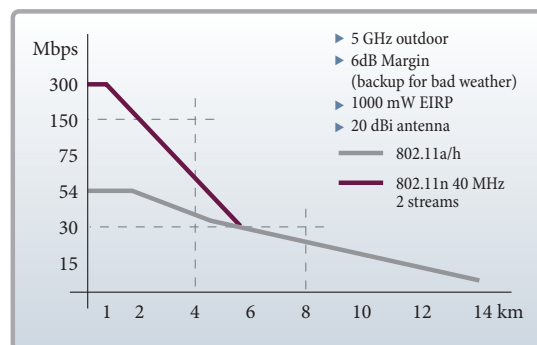
- Art. no.: 5510000271
- 2 x bintec W1065n
- 4 x 0,5m RTNC plug N plug LMR400 (600507)
- 4 x Surge Arrester N plug N jack (600499)
- 2 x Pole Mounting for WI-65 Series (5020591700)
- 2 x PoE Injector (600258)
- 2 x ANT-N-20-5G Dual Polarization

SUPPLEMENTARY COMPONENTS:

Bridge link calculator

The bridge link calculator is available under www.teldat.de -> Products -> Wireless LAN -> Antenna.

Ranges exemplarily for WLAN Bridgeline Bundles



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