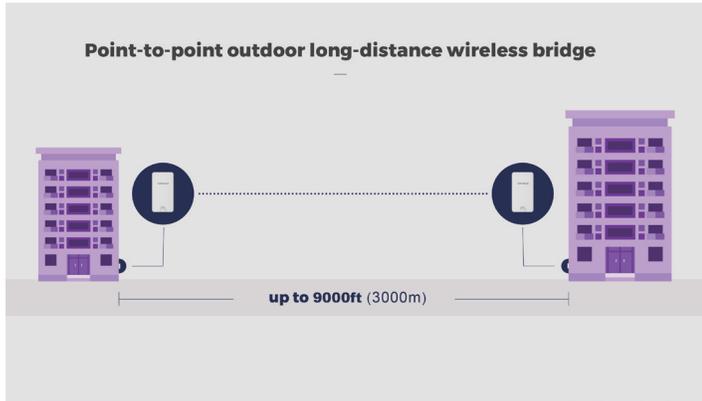# NETGEAR

B U S I N E S S

NETGEAR Insight Instant Wireless AirBridge Outdoor Long Distance WiFi with remote management

NETGEAR Insight Instant Wireless AirBridge for long distance Outdoor WiFi coverage up to 9000ft (3000m). Local or remote management for ease of installation and maintenance. NETGEAR AirBridge delivers 500Mbps at 500ft (166m) distance at line-of-sight and supports the latest 5GHz 802.11ac WiFi technology. NETGEAR AirBridge is ideal for outdoor WiFi expansion in country clubs or golf courses, external lodges, farms, poolhouses and outdoor IP cameras installation for home or business security.

- Line-of-sight outdoor point-to-point, point-to-multipoint connection
- Dual Ethernet ports for data uplink and downlink
- Ideal for field IP surveillance cameras
- Ideal for extending network to a detached office wirelessly
- Separate WiFi SSID for device management
- Managed by Insight, a NETGEAR Business product management platform when in point-to-point bridge mode

- Operational mode available as an outdoor access point with local management
- Sturdy housing with IP55 enclosure rated to resist harsh weather (water and dust resistant, long sun exposure, snow, hail, frost…)
- Included mounting accessories, for easy outdoor installation on walls, poles…
- Convenient LED lights for power and signal strength
- Use exclusively with the power supply provided in the box.

Example Application

Point-to-point outdoor long-distance wireless bridge

up to 9000ft (3000m)

Outdoor long-range wireless security

Technical Specifications

Wireless Radio Specification	
Wireless Type	Outdoor, IP55, dual radios concurrent (2.4 Ghz radio is only for management), 5GHz 802.11 ac 2x2 MIMO is backwards compatible with 802.11 ac/a/n mode
SU-MIMO	Two (2) spatial stream SU-MIMO for up to 867 Mbps wireless data rate to a single wireless client device
MU-MIMO	Two (2) spatial stream MU-MIMO for up to 867 Mbps wireless data rate to transmit to two(2) wireless client devices simultaneously.
Frequency Radios	5GHz: 5150MHz~5250MHz, 5250MHz~5350MHz, 5470~5725MHz, 5725MHz~5850MHz Support radios and channels will be varied on the configured regulatory domain
Supported Radio Technology	802.11n/ac: 2x2 MIMO with 2 streams 802.11ac supports very high throughput (VHT) — VHT 20/40/80 MHz 802.11n supports high throughput (HT) — HT 20/40 MHz 802.11n/ac packet aggregation: AMPDU, ASPDU Orthogonal frequency-division multiplexing (OFDM) under 802.11ac/a/n AirBridge technology with Time Division Multiple Access (TDMA) under 802.11ac/n
Supported Modulation Type	802.11a/n: BPSK, QPSK, 16-QAM, 64-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Transmit Power (Maximum Value)	23dBm Maximum power is limited by regulatory domain
Tx Beamforming (TxBF)	Increasing signal reliability and transmitting distance
Supported Data Rates (Mbps)	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 802.11n: 6.5 to 300 (MCS0 to MCS15) 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS=1 to 2)

Power	
Maximum Power Consumption	Maximum 8.93W
Power Source	Proprietary 24V PoE (Power: 4, 5; Return: 7, 8) Active Ethernet (Power Over Ethernet, PoE)

Antenna	
Antenna Types	WBC502: High-gain directional 14 dBi Antenna Widely frequency supported from 5150MHz to 5925MHz

Interfaces	
Networking Interface	Two (2) 10/100/1000 BASE-T RJ-45 Ethernet Ports
LED Indicators	Display system and wireless transmission status
Reset Button	Convert Access Point to the Factory default or the Users Default

Mounting	
Pole Mounting	Assemble a mounting bracket to fix this Access Point on a pole
Wall Mounting	Mount this Access Point on a flat wall

Mechanical & Environment	
Dimensions (Device only)	186mm (L) x 100mm (W) x 29mm (H) (7.54" x 4.49" x 1.88")
Weight	504g (1.11lbs)
Operating	Temperature: -20°C~60°C (-4°F~140°F) Humidity: 0%~90% typical
Storage	Temperature: -40°C~80°C (-22°F~176°F) Humidity: 0%~90% typical
Environment Protection Level	IP55
Surge Protection	Line to Line: 1.0KV Line to Ground: 2.0KV
ESD Protection	Contact: 4KV Air: 8KV

Compliance Regulatory	
FCC/ ISED	Subpart 15 B Subpart E 15.407 Subpart C/J RSS-102/247
CE	EN 301 893 EN 301 489-1/-17 EN 50385 EN 55032 EN 55024/EN 55034 EN 60950-1/-22 IEC 60529 EN 62368-1 EC 1275
Electromagnetic Compatibility	(2014/30/EU)

RF Performance Specification

Wireless Outdoor Long-Distance Point-to-Point Bridge

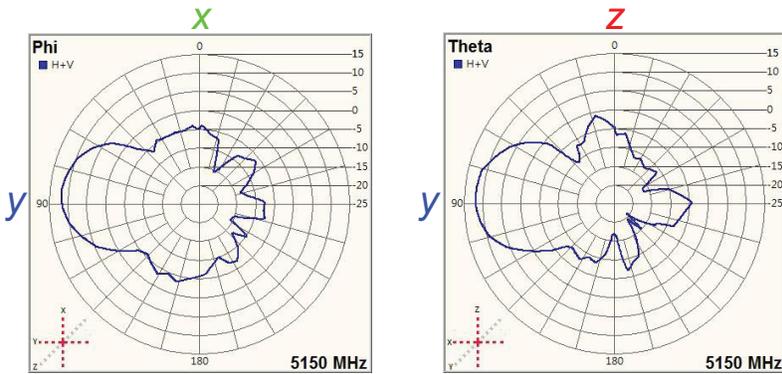| Channel	Data Rate	Transmit Power (Aggregated, dBm)	Receive Sensitivity (Aggregated, dBm)
802.11b 2.4 GHz	1 Mbps	-	-
	2 Mbps	-	-
	5.5 Mbps	-	-
	11 Mbps	-	-
802.11g 2.4 GHz	6 Mbps	-	-
	54 Mbps	-	-
802.11a 5 GHz	6 Mbps	26.0	-93.0
	54 Mbps	24.0	-76.0
802.11n HT20 2.4 GHz	MCS 0 / 8	-	-
	MCS 7 / 15	-	-
802.11n HT40 2.4 GHz	MCS 0 / 8	-	-
	MCS 7 / 15	-	-
802.11n HT20 5GHz	MCS 0 / 8	26.0	-92.0
	MCS 7 / 15	22.0	-73.0
802.11n HT40 5GHz	MCS 0 / 8	25.0	-90.0
	MCS 7 / 15	22.0	-71.0
802.11ac VHT20 5GHz	MCS0	25.0	-92.0
	MCS9	22.0	-69.0
802.11ac VHT40 5GHz	MCS0	25.0	-89.0
	MCS9	22.0	-64.0
802.11ac VHT80 5GHz	MCS0	25.0	-86.0
	MCS9	21.0	-61.0

*Maximum RF performance of the hardware provided. Maximum transmit power is limited by local regulatory.

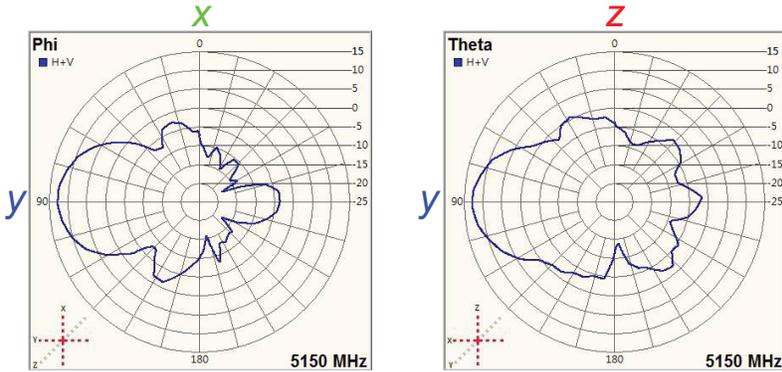*The supported frequency bands are restricted by local regulatory requirements.

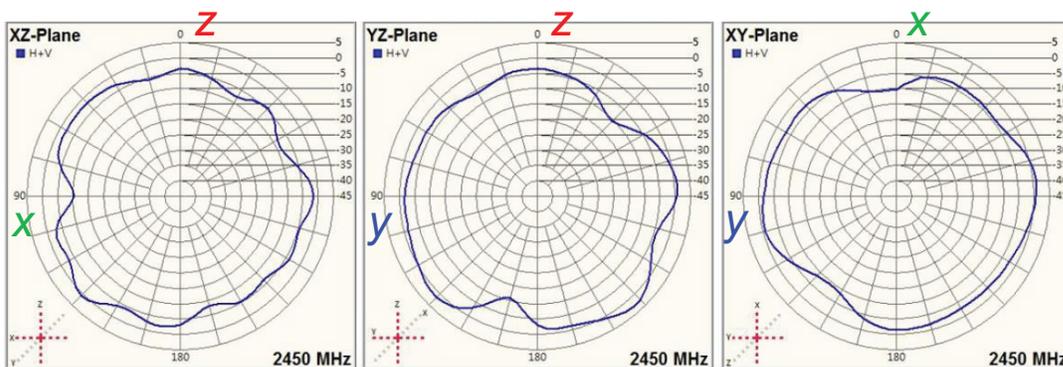*Transmit power is configured in 1.0dBm increments.

Radiation Patterns

Ant1 radiation pattern 5.15 GHz

Ant2 radiation pattern 5.15 GHz

Ant3 radiation pattern 2.45 GHz

Technical Specifications

FEATURES	WBC502
Hardware Warranty*	5 Years
Next Business Day Replacement	5 Years
Free Technical Support*	90 Days
Professional Configuration and Setup Support (remote)	PSB0304-10000S
ProSUPPORT OnCall 24x7 Support	PMB0311-10000S, 1-year contract PMB0331-10000S, 3-year contract PMB0351-10000S, 5-year contract
ORDERING INFORMATION	WBC502
United States	WBC502-100NAS
Europe (except UK)	WBC502-100PES
United Kingdom	WBC502-100UKS

DS-WBC502-21May20