Anywhere

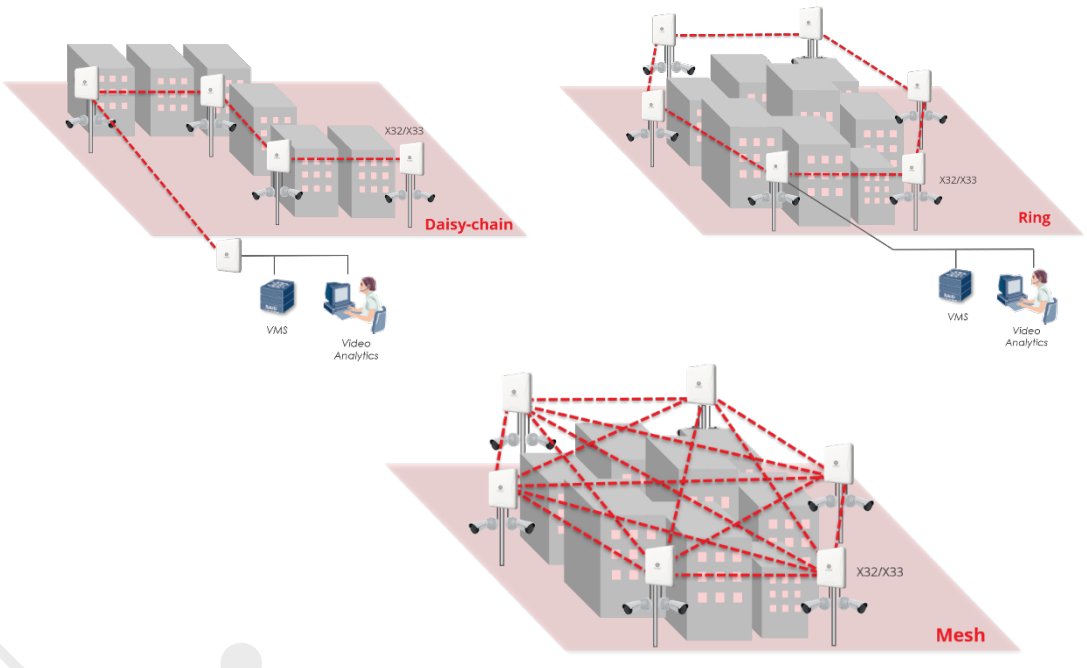
# X32 Anywhere Network Node


X32 Anywhere Network Node is an industrial-grade 5 GHz dual-radio wireless backhaul unit designed for flexible and expandable deployments regardless of physical constraints. Our Connectivity Technology breaks the traditional hopping limitation of wireless networks by tackling the multi-hop bandwidth degradation, enable X32 to extend connectivity to the locations where extensive fiber optic cabling is unfeasible due to a tight timescale. With the built-in selectable hardware RF filter, X32 provides interference isolation for delivering the highest end-to-end network throughput.

Anywhere Networks' not only provides absolute security through 128-bit AES link encryption and 256-bit AES end-to-end encryption but also optimizes client traffic management with the flow-based encapsulation. Packets are encrypted and encapsulated starting from the entrance point of the mesh, through travelling the tunnels, then decapsulated and decrypted at the exit points of the mesh. The intermediate nodes act as flow switching nodes without looking into the payloads but based on the encapsulation header to route to the destination. In this approach, we provide enhanced security, capacity and greater transparency at higher level applications.

| Ultra high throughput wireless surveillance backhauling applications | Over 20 hops backhauling with deployment flexibility | Industrial-grade hardware design |
|---|---|---|
| •Up to 1,000 Mbps throughput<br>•802.3af PoE output port | •Selectable hardware RF filter<br>•2×5 GHz radio | •IP 67 weatherproof<br>•6kV surge protection |

## Deployment Architecture



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## Specifications

| Wireless | | |
|---|---|---|
| Operating Frequency[1] | 4.940 - 4.990 GHz<br>5.150 - 5.350 GHz<br>5.470 - 5.850 GHz | |
| Modulation | OFDM: BPSK, QPSK,16QAM, 64QAM,256QAM<br>DSSS: DBPSK, DQPSK, CCK | |
| No. of Spatial Stream | 2×2: 2 MIMO | |
| Channel Bandwidth[1] | 20/40/80/160[2] MHz Channel | |
| Data Rate | 173 Mbps (20MHz); 400 Mbps (40 MHz); 867 Mbps (80 MHz); 1733 Mbps (160 MHz) | |
| Receive Sensitivity | -87 dBm (20 MHz); -84 dBm (40 MHz); -81 dBm (80 MHz);<br>-78 dBm (160 MHz) | |
| Transmit Power[1] | 21 dBm (Max) | |
| Features | Interference mitigation by selectable RF filter, Spectrum Analyzer | |
| **Antenna** | | |
| Connected To | Radio 0 | Radio 1 |
| Type | Built-in 5 GHz | External 5 GHz |
| Gain | 20 dBi | Optional Antennas: 5 GHz 19 dBi 2xN-female Panel; More Options on Request |
| Polarization | Vertical & Horizontal | |
| Horizontal Beamwidth | 17˚ | |
| Vertical Beamwidth | 17˚ | |
| VSWR | 1.8 (Max.) | |
| Front-to-back Radio | -30 dB (Min.) | |
| Isolation | 35 dB (Min.) | |
| **Network** | | |
| Topology | Point-to-Point (PtP), Point-to-Multipoint (PtMP), Daisy-chain, Ring, and Mesh | |
| Redundancy | Flow-based routing, Multiple Drop-off Point, Bonded Link | |
| Mobility | Mobile Mode and Static Mode | |
| Path Selection | Bandwidth-based metrics load balancing | |
| Traffic Optimization | BUM Traffic Management | |
| Features | End-to-End Layer 2 Transparent, VLAN 802.11Q pass-through | |
| **Security** | | |
| Link Encryption | 128-bit AES | |
| End-to-end Encryption | 256-bit AES | |
| Client MAC Access Control | Whitelist[2], Blacklist | |
| Neighbor MAC Access Control | Whitelist, Blacklist | |

| Management | |
|---|---|
| User Interface | Anywhere Node Manager (A-NM) for A-OS |
| Support | Remote Firmware Upgrade, SNMP v1/v2c[2], MIB support[2] |
| **Hardware** | |
| No. of Radio | 2×5 GHz Radio |
| Network Interface | 1xGE & PoE Input Port; 1xGE & PoE Output Port (802.3af) |
| LED | PWR; ETH0; ETH1; PD; RADIO 0; RADIO 1 |
| Power Supply | Proprietary High Power PoE Injector (60W) |
| Power Consumption | 34 W (Max.) |
| Antenna Movement | ±30° Up/Down-tilt |
| MTBF | 350,000 hours (50˚C) |
| **Physical Characteristics** | |
| Dimensions | 305×305×111 mm (w/ Bracket, w/o Mounting) |
| Weight | 3.5 kg (Net w/o Mounting);<br>4.5 kg (Net w/ Mounting); |
| Mounting | Pole (ø30 to ø60 mm) and Wall Mounting |
| **Environmental** | |
| Temperature | -40˚C to 65˚C (Operating) |
| Humidity | 5% to 95 % Non-condensing |
| Elevations | 86 to 106 kPa |
| Wind Loading | 256 km/h (Max.) |
| Weatherproof | IP67, 6 kV Common Mode Surge Protection |
| **Certification** | |
| FCC, CE, RCM, OFCA | |
| **Standard Warranty** | |
| First year free limited hardware warranty and firmware upgrade. The 1/3/5-year extended warranties are available under specific purchase terms and conditions. | |
| **Ordering Information** | |
| Part Number | GE.AP-X320-00 |
| Description | X32 Dual 5GHz MeshRanger |

[1]operating frequency, transmit power and channel bandwidth vary by country/region settings
[2]available in the future updates

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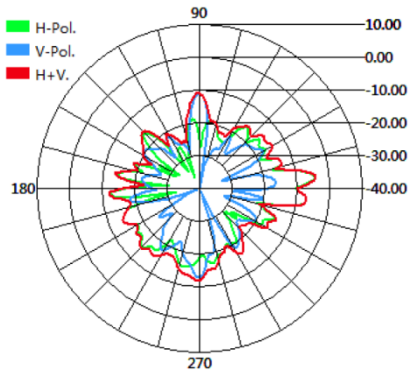
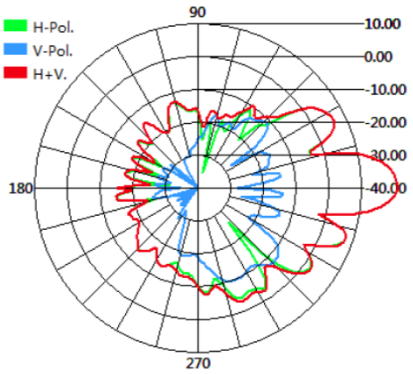
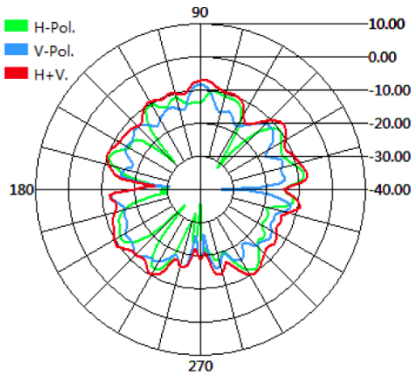
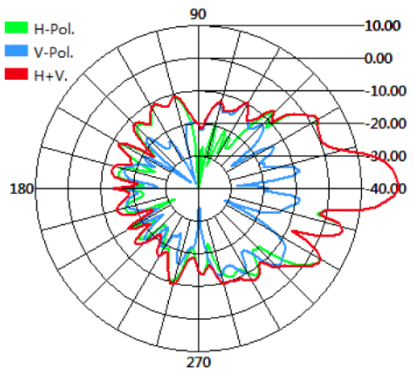
## Antenna Patterns for Built-in 5GHz 20dBi 2×2 Panel Antenna

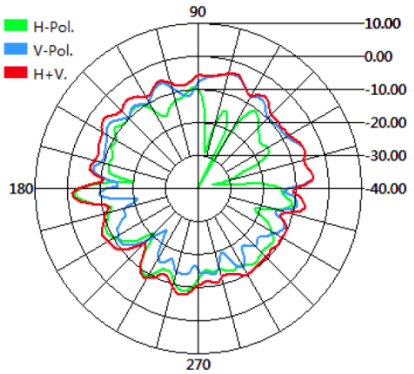
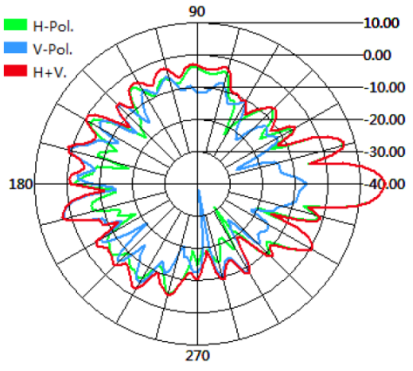
Vertical Polarization, 5.15 GHz

| XY-plane | XZ-plane |
|---|---|
|  |  |

Vertical Polarization, 5.50 GHz

| XY-plane | XZ-plane |
|---|---|
|  |  |

Vertical Polarization, 5.85 GHz

| XY-plane | XZ-plane |
|---|---|
|  |  |

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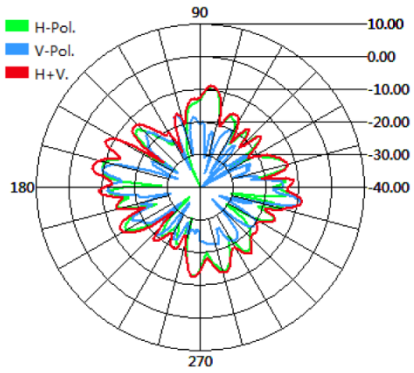
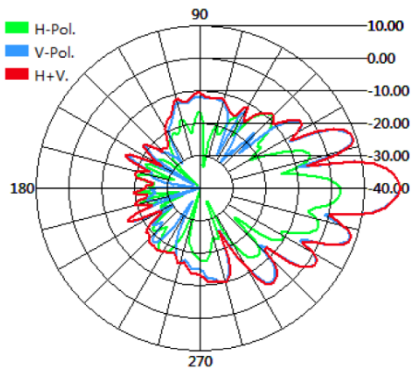
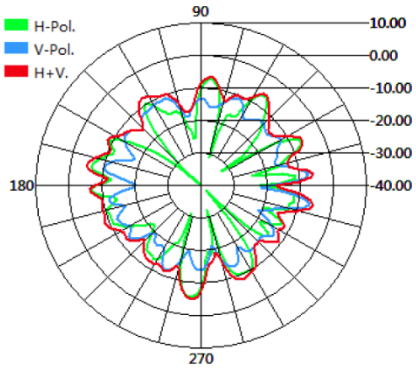
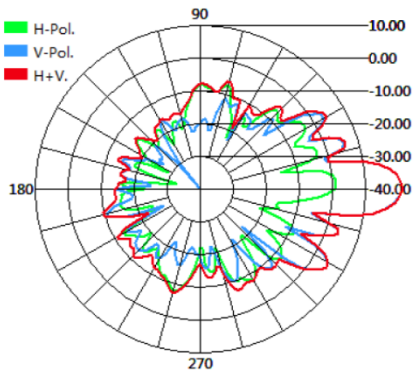
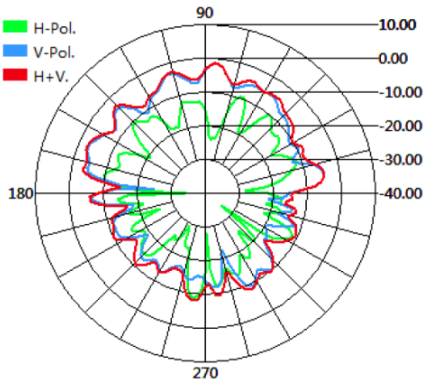
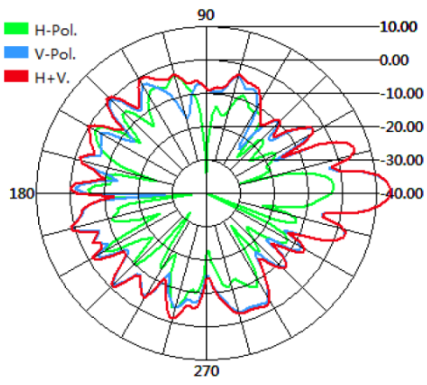
| Horizontal Polarization, 5.15 GHz | |
|---|---|
| XY-plane | XZ-plane |
|  |  |

| Horizontal Polarization, 5.50 GHz | |
|---|---|
| XY-plane | XZ-plane |
|  |  |

| Horizontal Polarization, 5.85 GHz | |
|---|---|
| XY-plane | XZ-plane |
|  |  |



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