



X30 Series Tri-5GHz MeshRanger

Smart Virtual Fiber

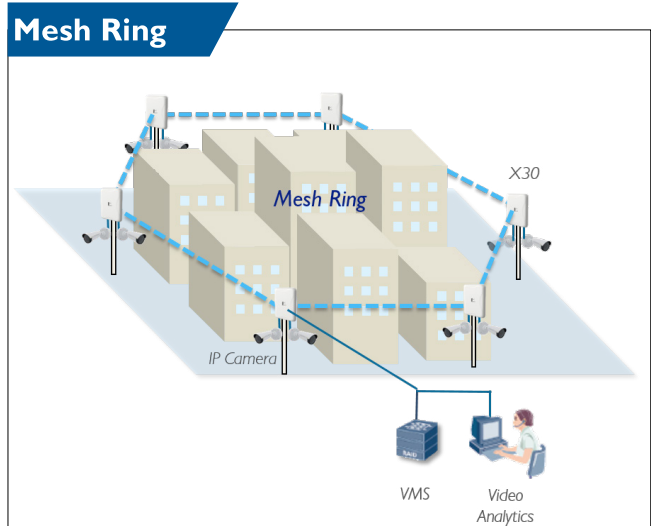
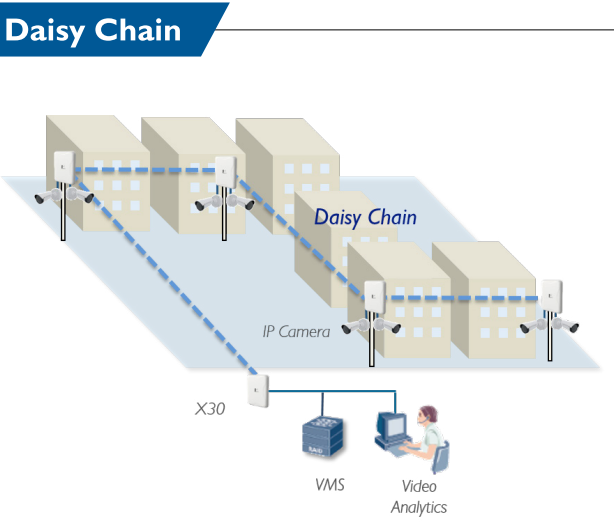


X30 series is an industrial-grade 5 GHz tri/dual-radio wireless backhaul unit series designed for flexible and expandable deployments regardless of physical constraints. Working as a Smart Virtual Fiber, the X30 series extends connectivity to the locations where extensive fiber optic cabling is unfeasible due to a tight timescale.

The Smart Virtual Fiber technology breaks the traditional hopping limitation of wireless networks by tackling the multi-hop bandwidth degradation. With the built-in selectable hardware RF filter, it provides supreme interference isolation for delivering the highest end-to-end network throughput.

- Ultra high throughput wireless surveillance backhauling applications
- Up to 1,000 Mbps throughput
- 802.3af PoE output port
- Greater than 20 hops backhauling with deployment flexibility
- Selectable hardware RF filter
- 2 × 5 GHz radio, 1 × 2.4 / 5 GHz radio
- Industrial-grade hardware design
- IP 67 weatherproof
- 6kV surge protection

Deployment Architecture



X30 Series Tri-5GHz MeshRanger

Specifications

Wireless

Operating Frequency (Country-dependent)	2.400 - 2.4835 GHz 5.150 - 5.350 GHz 5.470 - 5.850 GHz		
Modulation Techniques	OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM DSSS: DBPSK, DQPSK, CCK		
No. of Spatial Stream	2x2: 2 MIMO, 20/40/80/160 MHz Channel		
Receive Sensitivity	Radio 0/1	Radio 2	
	-87 dBm (20 MHz); -84 dBm (40 MHz); -81 dBm (80 MHz); -78 dBm (160 MHz)	-91 dBm (20 MHz); -88 dBm (40 MHz); -85 dBm (80 MHz); -82 dBm (160 MHz and 80+80 MHz)	
Transmit Power (Country-dependent)	Radio 0/1	Radio 2	
	5 GHz	2.4/5 GHz	
	21 dBm (Max.)	23 dBm (Max.)	
Features	Interference mitigation by selectable RF filter		

Antenna

Connected to	Radio 0	Radio 1	Radio 2
Type			
Model X33	Built-in 5 GHz	External 5 GHz	External 2.4/5 GHz
Model X32	Built-in 5 GHz	External 5 GHz	N/A
Model X32e	External 5 GHz	External 5 GHz	N/A
Gain	20 dBi	Optional	Optional 2.4/5 GHz 5/7 dBi
Polarization	Vertical & Horizontal	Antennas: 5 GHz 19 dBi 2 x N-female Panel, More Options on Request	Dual-band N-male Omni; 5 GHz 19 dBi 2 x N-female Panel, More Options on Request
Horizontal Beamwidth	17°		
Vertical Beamwidth	17°		
VSWR	1.8 (Max.)		
Front-to-back Ratio	-30 dB (Min.)		
Isolation	35 dB (Min.)		

Networking

Smart Virtual Fiber Technology	Designed for Multi-hop High Throughput Wireless Surveillance and Backhauling
Topology	Daisy Chain, Mesh Ring
Redundancy	STP
Features	End-to-End Layer 2 Transparent, VLAN Trunking

Security

Mesh Link	2-tier Irreversible Key Generation Algorithm, Enhanced 3-factor (Mesh ID, Mesh Key and Static Key) Authentication Mechanism, MAC-based Access Control, Unique Per-link Packet Encryption
Authentication	Open system, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, 802.1x (EAP-PEAP/ TLS/ TTLS/ SIM/ AKA)

Encryption Protocol	TKIP, 128-bit AES
---------------------	-------------------

Management

Built-in Web User Interface	SmartMoment
Support	Remote Firmware Upgrade, SNMP v1/v2c, MIB support

Hardware

	Model X33	Model X32	Model X32e
No. of Radio	2 x 5 GHz Radio, 1 x 2.4/5 GHz Radio	2 x 5 GHz Radio	
Network Interface	1 x GE & PoE Input Port; 1 x GE & PoE Output Port (802.3af)		
LED	PWR; ETH0; ETH1; PD; RADIO 0; RADIO 1; RADIO 2		
Power Supply	Proprietary High Power PoE Injector (60 W)		
Power Consumption	38 W (Max.)	34 W (Max.)	
Antenna Movement	±30° Up/Down-tilt		
MTBF	350,000 hours (50°C)		

Physical Characteristics

	Model X33	Model X32	Model X32e
Dimensions	305 x 305 x 111 mm (w/ Bracket, w/o Mounting)		300 x 260 x 90 mm (w/ Bracket, w/o Mounting)
Weight	3.5 kg (Net w/o Mounting); 4.5 kg (Net w/ Mounting); 5.4 kg (Gross)		2.8 kg (Net w/o Mounting); 3.8 kg (Net w/ Mounting); 4.6 kg (Gross)
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	265 km/h (Max.)
Weatherproof	IP67, 6 kV Common Mode Surge Protection

Certification

FCC, CE, RCM, OFCA

Warranty

First year free limited hardware warranty and firmware upgrade

Ordering Information

Part Number	Description
GE.AP-X330-00	X33 Tri-5GHz MeshRanger
GE.AP-X320-00	X32 Dual 5GHz MeshRanger
GE.AP-X32E-00	X32e Dual 5GHz MeshRanger

P2 reserves the rights to change, modify, transfer or otherwise revise the publication and the product specification without notice. All scaling metrics outlined in this document are maximum supported values. The scale may vary depending on the deployment scenario and features enabled.

Visit p2wireless.com or contact sales@p2wireless.com for more details.

