

# 60GHz Outdoor mmWave PTP

**PTP6030**



## Product Features



### Less Crowded, Unlicensed Band

The use of the unlicensed 60GHz band avoids the already crowded frequency usage of the 2.4GHz and 5GHz band. As it is less crowded in the 60GHz band, incidents of interference are very low, thus making it easy to deploy a stable wireless transmission.



### Beamforming Technology

The wireless transmission performance has been greatly enhanced through phased-array radio and beamforming algorithm which improves the gain and directionality. This results in a faster, more direct and reliable wireless connection.



### High Throughput

Operating in the 60GHz band enables more accommodation of frequencies in the spectrum. This allows for data transmission with higher throughput in the Gigabit range. The PTP6030 provides maximum throughput in the following scenario: Up to 1.8Gbps at 150m; Up to 1.5Gbps at 300m; Up to 1.3Gbps at 500m.



### Industrial-Grade Design; Weather Resistant

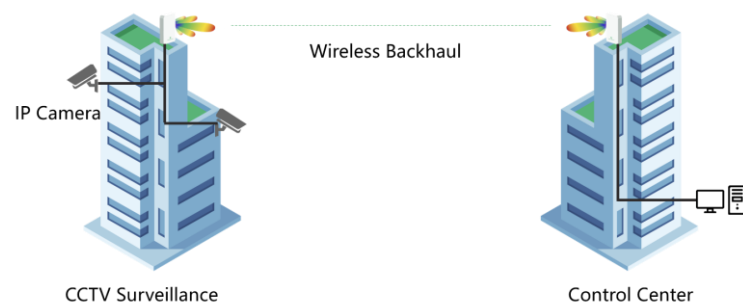
The PTP6030 is housed in an industrial-grade casing that is strong and light. It has an IP rating of 67, making it Dust- Tight (no ingress of dust) and is protected in water of up to 1m. The PTP6030 also encompasses port lightning protection, making it ideal to deploy in harsh climate conditions, typical of outdoor environment.

The PTP 6030 is a specially designed industrial-grade Access Point, capable of providing multi-gigabit Wi-Fi transmission at the 60GHz spectrum. It is developed based on the IEEE 802.11ad wireless networking standards, which allows for more bandwidth usage for data transmission at high data rates.

The PTP 6030 delivers at a high data rate of 2.5Gbps, with throughput of up to 1.3Gbps at 500m. Enclosed in an IP67-rated casing, it is most suited for outdoor environment applications, while providing a stable and optimal wireless communication.

## Applications

- Gigabit Wireless Backhaul (Similar to Wireless Air Fiber)
- Fixed Broadband Communication
- Point-To-Multipoint Wireless
- Wireless CCTV Surveillance
- Industrial Wireless Applications



## Specifications

Interface	
Power IN	<ul style="list-style-type: none"><li>• 48 V/0.5A Passive Gigabit PoE</li><li>• IEEE802.3af PoE</li><li>• DC(12V/3A)</li></ul>
Power consumption	15 Watts maximum
Interface	<ul style="list-style-type: none"><li>• 1x 2.5 GbE LAN Port (PoE In)</li><li>• 1x Grounding Terminal</li><li>• 1x Reset</li></ul>
LED	<ul style="list-style-type: none"><li>• 60G</li><li>• ETH</li><li>• SYS</li></ul>

Wireless	
Wireless LAN Standards	IEEE 802.11 ad
Throughput*	<ul style="list-style-type: none"><li>• Up to 1.8 Gbps at 150m</li><li>• Up to 1.5 Gbps at 300m</li><li>• Up to 1.3 Gbps at 500m</li></ul>
Operating Frequencies	IEEE 802.11ad: 60GHz Unlicensed
Channel Bandwidth	Multiple 2.16 GHz Channels: Channel 1: 58.32GHz Channel 2: 60.48 GHz Channel 3: 62.64 GHz Channel 4: 64.80 GHz
Modulation & Coding Scheme (MCS)	MCS 1-9
Transmission Range	Up to 500m
Antenna Gain @Channel-2	27dBi
3 dB Beamwidth	12°(azimuth) 12°(elevation)
Over-The-Air RF Performance(TX) Peak EIRP @Channel-2	Up to 38 dBm
Over-The-Air RF Performance (RX)(+/- 2dB)	<ul style="list-style-type: none"><li>• -68 dBm @ MCS1</li><li>• -63 dBm @ MCS5</li><li>• -59 dBm @ MCS9</li></ul>
Operation Mode	Base / Terminal

Antenna Performance Parameter	
Antenna Type: Patch / Directional	
<b>Horizontal Polarization</b>	
3dB Beamwidth In E-Plane (Beam Steering)	12°
3dB Beamwidth In H-Plane (Beam Steering)	12°
Impedance Bandwidth	57GHz to 68GHz
<b>Vertical Polarization</b>	
3dB Beamwidth In E-Plane (Beam Steering)	12°
3dB Beamwidth In H-Plane (Beam Steering)	12°
Impedance Bandwidth	57GHz to 68GHz

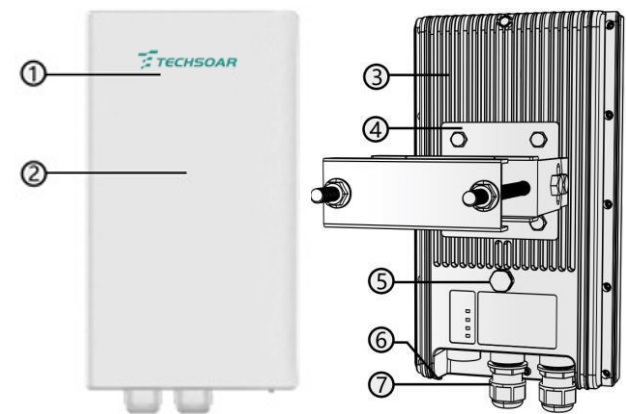
# Specifications

Environmental	
IP Rating	IP67
Protection	• ±15 KV ESD Protection • ±6KV Lightning Protection
Operating Temperature	-30°C to +60°C
Storage Temperature	-40°C to +70°C
Operating Humidity	10% ~ 90% max non-condensing
Storage Humidity	5% ~ 95% max non-condensing

Management Function	
Management	• Web Management and TR-069 • Firmware Update By Web UI • System Log
Security	• 60GHz: WPA2-PSK encryption
Network	• VPN Client • Static IP Settings • Basic WLAN Settings
System Tools and Monitoring	• Indicators: CPU, Memory • Monitoring: Throughput, Interfaces
Other System Optimizations	• Jumbo Packet Support (Up to 7,900 bytes) • Hardware Watchdog • Dual Flash Image Support

General	
Dimension L × W × H	282 x 160 x 68 mm
Weight	2.3 Kg (With Mounting Kit) 1.6 Kg (Without Mounting Kit)
Enclosure	Material: Outdoor ASA Stabilized Plastic
Mounting	Wall and Pole Mounting

## Product Overview

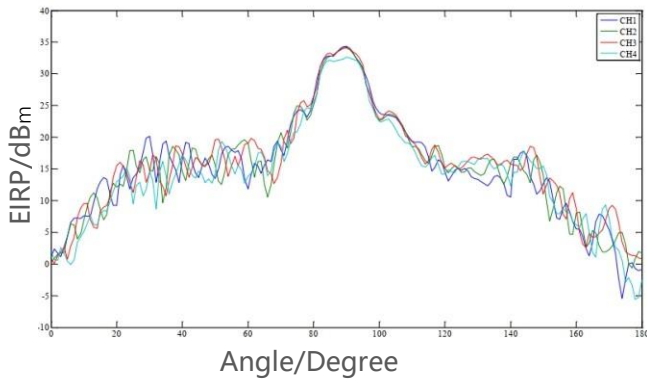


- ① logo
- ② A-Side Casing
- ③ B-Side Casing
- ④ Mounting Kit
- ⑤ Air Release Valve
- ⑥ Grounding Terminal
- ⑦ Waterproof Connector

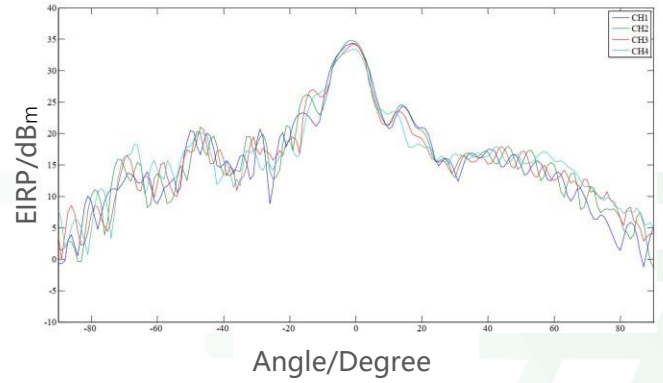
## Standard Package

- One PTP 6030 Access Point Module
- Quick Installation Guide
- Pole Mounting Bracket Kit
- POE Injector (1 pcs)
- Safety Chain (1 pcs optional)

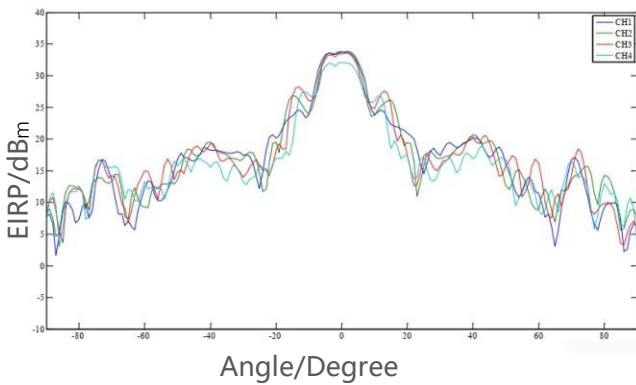
### H Polarization V Plane



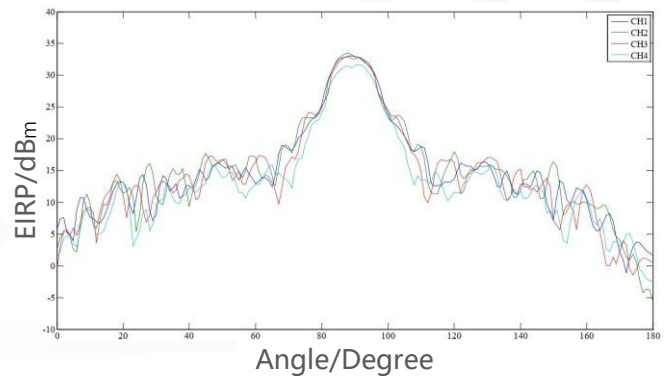
### V Polarization V Plane



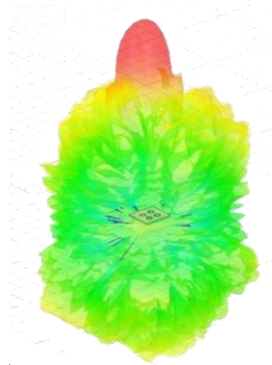
### H Polarization H Plane



### V Polarization H Plane



### 3D Radiation Pattern



### About Techsoar

Techsoar is a pioneering force in the development of mmWave technology and related products. Equipped with a state-of-the-art mmWave R&D lab and a team of top-tier wireless communication industry professionals, we are dedicated to providing cutting-edge solutions to meet the demands of the modern world. We possess a wealth of experience in developing mmWave system and which enables us to build a solid foundation for the application of mmWave technology in industrial internet, smart city, AR & VR, and other emerging fields.