

PHAROS^{III} Solution

2022

WISP | PtP | PtMP Solutions

Ideal for Long Range Wireless Broadband Networking



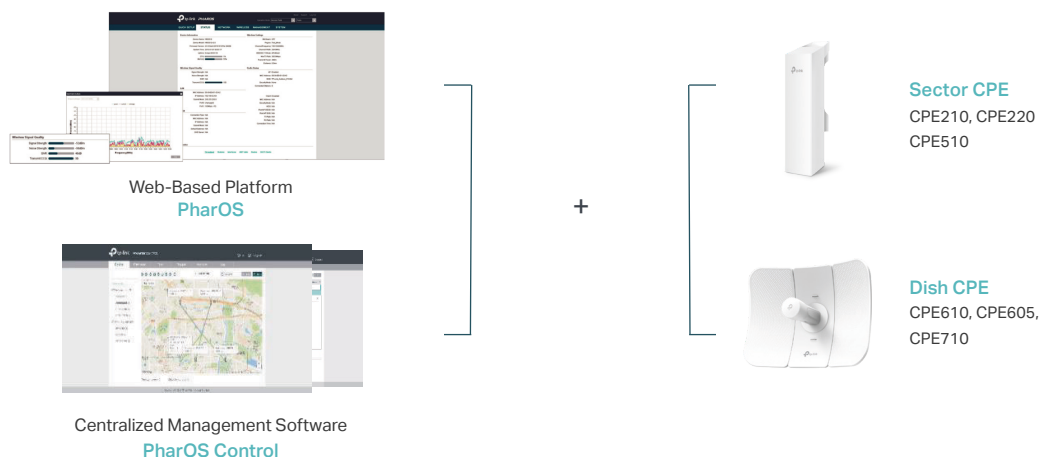
Professional
Reliable
Secure



PHAROS Wireless Broadband

Pharos is TP-Link's next-generation outdoor product series, providing long-range outdoor wireless networking for applications such as WISP, Enterprise Bridge (PtP), and Wireless Surveillance (PtMP). The line consists of professional outdoor directional CPEs, and powerful PharOS web-based interface and the Pharos Control centralized management platform are available.

Management / Products

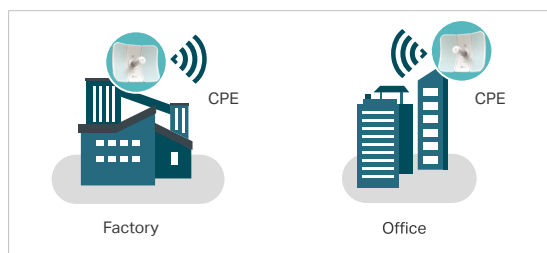


WISP Solution

TP-Link Pharos Series offers excellent performance and value, allowing providers to offer excellent quality of service and create satisfying experiences for customers. This solution allows WISPs to effectively transmit internet connections from a remote service center to local markets and reach customers who live in sparsely populated areas.

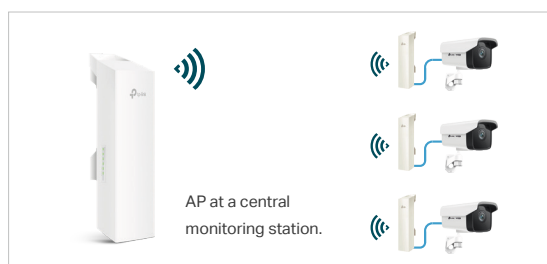
Enterprise Bridge (PtP)

Simple PtP links can be used to transmit an internet connection from one place to another or to transmit data between two distant locations.



Wireless Surveillance (PtMP)

PtMP coverage provides a perfect wireless surveillance solution for construction sites, mining sites, logging sites, and more. It is suitable for deployment in areas where wired surveillance systems may be inconvenient.



Note: Please find the detailed specifications on page 5.

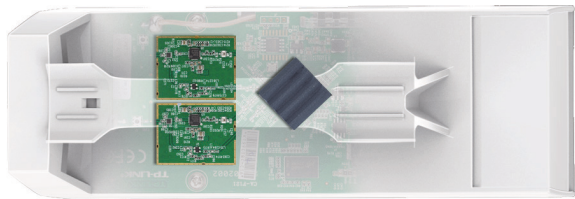
Solution Features

Enterprise-Level Hardware Design Provides Maximum Performance

In order to maximize the performance and stability of the wireless network, Pharos products contain Qualcomm Atheros enterprise-level chipsets, high-gain antennas, and high-power amplifiers.

Qualcomm Atheros
Enterprise 560 MHz CPU*

High power Tx and high
sensitivity Rx radio front-end design



*CPE710 is equipped with Qualcomm Atheros Enterprise 750 MHz CPU.

Proven Stable Throughput That Exceeds Your Expectations

Pharos Series devices are proven to provide exceptional network speeds, helping you overcome the bottleneck effect that plagues most existing networks. The real throughput of a Pharos product in a Point-to-Point link usually exceeds expectations—a feat that no other product in its price range can achieve.



Note: Actual range and throughput may vary and depend on the transmit power and environmental factors such as wireless interference, obstacles, weather etc.

Directional Antenna for Long-Distance Wi-Fi Transmission

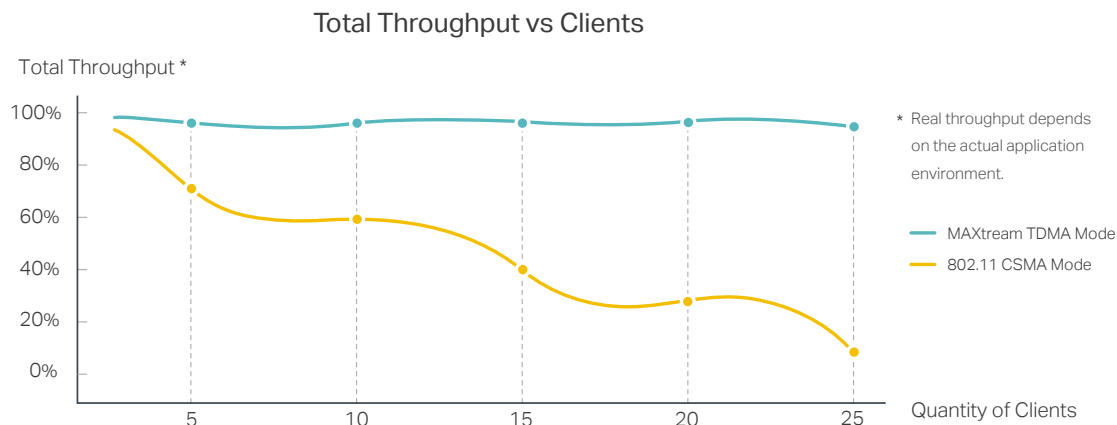
With a 23 dBi high-gain directional Cassegrain antenna and dedicated metal reflector, CPE710, CPE610, and CPE605 provide excellent beam directivity, improved latency, and noise cancellation. Professional performance, coupled with user-friendly design, makes the CPE an ideal choice and cost effective solution for long-distance outdoor wireless networking applications.

Frequency	Products	Max. Range
Enterprise Bridge		
2.4 GHz	CPE210+CPE210	5 km
	CPE220+CPE220	13 km
5 GHz	CPE510+CPE510	15 km
	CPE605+CPE605	20 km
	CPE610+CPE610	30 km
	CPE710+CPE710	30 km

Note: All products are tested in real outdoor environments. Actual range and throughput depend on the transmit power and environmental factors such as wireless interference, obstacles, weather, etc.

▶ MAXtream TDMA Technology Brings Performance to a Whole New Level

To ensure optimal network performance, TP-Link has incorporated MAXtream TDMA Technology into the Pharos solution. This helps mitigate the effects of signal competition and collisions, which frequently occur on large networks with many client devices. It also enhances and protects the effective throughput of crowded networks.



▶ Centralized Management Platform Easily Controls All Devices

CPEs are usually distributed and installed throughout vast geographic areas. Therefore, individual, on-site management of devices represents a major inconvenience. Pharos Control is a free centralized management platform that allows WISPs to manage and control every network device from any connected PC.



▶ Exceptional Industrial Design for Harsh Environments

To maximize performance and stabilize long distance wireless transmissions, the Pharos Series features specially designed weatherproof enclosures and PoE capability. This industry-leading hardware ensures that the Pharos Series can be deployed in a wide variety of environments, withstanding broad ranges of humidity and temperature (-40~70°C) (-40~158°F).



Wind-resistant Construction



Easy Assembly & Flexible Installation



Weatherproof Enclosure









6KV Lightning Protection



15KV ESD Protection



Survive in -40~70°C

	CPE					
Product Picture						
Model	CPE710	CPE610	CPE605	CPE510	CPE210	CPE220
Description	5GHz 867Mbps 23dBi Outdoor CPE	5GHz 300Mbps 23dBi Outdoor CPE	5GHz 150Mbps 23dBi Outdoor CPE	5GHz 300Mbps 13dBi Outdoor CPE	2.4GHz 300Mbps 9dBi Outdoor CPE	2.4GHz 300Mbps 12dBi Outdoor CPE
Memory Information	128MB DDR2, 16MB Flash	64MB DDR2, 8MB Flash				
Compatibility	802.11 a/n/ac	802.11 a/n			802.11 b/g/n	802.11 b/g/n
Frequency	5.15~5.85 GHz				2.4~2.483 GHz	
Maximum Data Rate	867 Mbps	300 Mbps	150 Mbps	300 Mbps		
Antenna	23 dBi			13 dBi	9 dBi	12 dBi
Transmission Power	27 dBm	25 dBm	23 dBm	26 dBm	25 dBm	30 dBm
Weatherproof Enclosure	IP65			IPX5		
ESD Protection	15KV					
Lightning Protection	6KV					
MIMO	•		-	•		
Ethernet Ports	1× 10/100/1000 Mbps	1× 10/100 Mbps				2× 10/100 Mbps
Grounding Protection Terminal	-			•		
Power Supply Method	24V Passive PoE Adapter					
Operation Modes	AP / Client / AP Router / AP Client Router (WISP)					
Advanced Functions	-	MAXtream TDMA Technology (Time Division Multiple Access)				
Remote Management	Central Network Management Applications; Web-based GUI management; SNMP V2c					
Utilities	Spectrum Analyzer; Wireless Statistics; Antenna Adjustment; Distance Adjustment; Ping Watch Dog; Throughput Monitor; Wireless Speed Monitor					
Certifications	CE, FCC, RoHS, IP65			CE, FCC, RoHS, IPX5		
Dimensions (W × D × H)	14.4 × 11 × 8.1 in (366 × 280 × 207 mm)		13.8 × 9.8 × 8.1 in (350 × 255 × 207 mm)	8.8 × 3.1 × 2.4 in (224.3 × 79 × 60 mm)		10.9 × 3.1 × 2.4 in (275.8 × 79 × 60 mm)
Environment	Operating Temperature: -40~70 °C (-40~158 °F); Storage Temperature: -40~70 °C (-40~158 °F) Operating Humidity: 10~90% RH Non-Condensing; Storage Humidity: 5~90% RH Non-Condensing					

Case Study



WISPs in Peru

Location: Peru, South America

Products: CPE510, and a series of TP-Link products for 150 subscribers

Solution: Pharos Series devices met the stated performance demands and represented a cost-effective enterprise-class outdoor wireless solution. Pharos products provided wireless backhaul connections, and allowed local subscribers to access the internet. Pharos Control allowed administrators to easily and efficiently manage the network.

Testimonial

"The performance of CPE was better than expected, working stable even with -85 dBm of received power."

—David Grillo, Engineer, Kroton



WISP in Indonesia

Location: Jakarta, Indonesia

Products: CPE210, and a series of TP-Link products

Solution: TP-Link's Pharos Series provides a high performance, enterprise class outdoor wireless solution that is also cost-effective. The point-to-point long distance wireless backhaul and point-to-multipoint wireless coverage is created using Pharos products.

Testimonial

"Amazing! The performance of the Pharos Wireless Broadband Solution has exceeded even our wildest expectations."

—Bagus Prakoso, owner of the local ISP.

Powerful Support

In addition to the Pharos solution and high-quality products, TP-Link also provides whole service for complete client satisfaction.

▶ TP-Link Partner Program

<https://partner.tp-link.com/>

TP-Link's success as a provider of network solutions has been built on its relationship and unrivaled commitment to its partners. For Value-added Resellers (VARs) and System Integrators (SIs) looking for access to even better deals and tailored support, TP-Link has designed the TP-Link Partner Program to reward loyalty and help grow business.

▶ SMB Community

<https://community.tp-link.com/en/business/>



Technical support and case sharing.
Your direct dialogue with TP-Link.
When it comes to SMB, we know you want to learn more...



Forums



Stories



Knowledge Base

▶ Excellent Pre- and After-Sales Services

After-Sales Services

- Global Call Center Providing Hotline Support
- 24/7 Post-Sales Email Service
- Online SMB Community

Quality of Service

- Replacement and Warranty
- Constant Firmware Updates from Cloud Service

Tech Solutions

- Online Training and Certifications—TPNA & TPNP
- Specialized Support Team Locally and Abroad

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*Actual products may vary from image.

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