



Pharos CPE Series

Dedicated Long-Range Outdoor
Wireless Networking Solution

CPE210 / CPE220 / CPE510 / CPE605 / CPE610 / CPE710

Highlights

- Selectable bandwidth of 20/40/80 MHz for CPE710 and 5/10/20/40 MHz for other models
- Adjustable transmission power by 1 dBm
- Broad operating frequency channels ensure less wireless interference
- Passive PoE Adapter supports up to 60 meter¹ (200 feet) Power over Ethernet deployment
- TP-Link Pharos MAXtream² (Time-Division-Multiple-Access) technology improves product throughput, capacity and latency performance, ideal for PtMP applications.
- Centralized Management System – Pharos Control



¹ Power supply distances are based on test results under normal usage conditions. Actual power supply distance will vary as a result of 1) AP status, including transmit power, connected devices and network traffic and 2) cable properties, including type and texture.

² CPE210 / CPE220 / CPE510 / CPE605 / CPE610 supports Maxtream.

Specification

Features & Performance

| Model | CPE210 V3.2 | CPE220 V3.0 | CPE510 V3.2 | CPE605 V1.0 | CPE610 V2.0 | CPE710 V1.0 | |
|------------------|---|--|--|---|--|---|---|
| Name | 2.4 GHz 300 Mbps 9 dBi Outdoor CPE | 2.4 GHz 300 Mbps 12 dBi Outdoor CPE | 5 GHz 300 Mbps 13 dBi Outdoor CPE | 5 GHz 150 Mbps 23 dBi Outdoor CPE | 5 GHz 300 Mbps 23 dBi Outdoor CPE | 5GHz 867Mbps 23dBi Outdoor CPE | |
| Package Contents | Outdoor CPE 24 V Passive PoE Adapter AC Power Cord Mounting Kits Quick Installation Guide | | | | | | |
| Hardware Feature | Processor | Qualcomm 650 MHz CPU, MIPS 24 Kc | | Qualcomm 560 MHz CPU, MIPS 74 Kc | | Qualcomm 750 MHz CPU, MIPS 74 Kc | |
| | Memory | 64 MB DDR2 RAM, 8 MB Flash | | | | 128 MB DDR2 RAM, 16 MB Flash | |
| | Antenna Gain | 9 dBi | 12 dBi | 13 dBi | 23 dBi | | |
| | Beamwidth | 65° (Azimuth) / 40° (Elevation) | 60° (Azimuth) / 30° (Elevation) | 45° (Azimuth) / 45° (Elevation) | 7° (Azimuth) / 10° (Elevation) | 9° (Azimuth) / 7° (Elevation) | |
| | Interfaces | 1 10/100 Mbps Shielded Ethernet Port (LAN/POE) 1 Grounding Terminal 1 Reset Button | 1 10/100 Mbps Shielded Ethernet Port (LAN0/POE) 1 10/100 Mbps Shielded Ethernet Port (LAN1) 1 Grounding Terminal 1 Reset Button | 1 10/100 Mbps Shielded Ethernet Port (LAN/POE) 1 Grounding Terminal 1 Reset Button | 1 10/100 Mbps Shielded Ethernet Port (LAN/POE) 1 Reset Button | | 1 10/100/1000 Mbps Shielded Ethernet Port (LAN/POE) 1 Reset Button |
| | Power Supply | 24 VDC / 0.25 A Passive PoE (+4,5 pins; -7,8 pins) | 24 VDC / 0.5 A Passive PoE (+4,5 pins; -7,8 pins) | | 24 VDC / 0.25 A Passive PoE (+4,5 pins; -7,8 pins) | 24 VDC / 0.5 A Passive PoE (+4,5 pins; -7,8 pins) | |
| | Dimensions (L x W x H) | 224 × 79 × 60 mm | 276 × 79 × 60 mm | 224 × 79 × 60 mm | 207 × 255 × 350 mm | 207 × 280 × 366 mm | |
| | Protection ⁴ | 15 kV ESD Protection 6 kV Lightning Protection | | | | | |
| Enclosure | Material: Outdoor ASA stabilized plastic Weatherproof: IPX5 water and dust proof design | | | Material: Outdoor PC stabilized plastic Weatherproof: IP65 water and dust proof design | | | |

⁴Protection against lightning and electro-static discharge may be achieved through proper product setup, grounding and cable shielding. Refer to the instruction manual and consult an IT professional to assist with setting up this product.

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| Wireless Features | Wireless Standards | IEEE 802.11 b/g/n | | IEEE 802.11a/n | | IEEE 802.11a/n/ac | | |
| | Proprietary Protocol | TDMA Mode (with Pharos MAXtream enabled) | | | | | / | |
| | Frequency ⁵ | 2.4-2.483 GHz | | 5.15-5.85 GHz | | | | |
| | Wireless Speed ⁶ | Up to 300 Mbps (40 MHz, Dynamic) Up to 144.4 Mbps (20 MHz, Dynamic) Up to 72.2 Mbps (10 MHz, Dynamic) Up to 36.1 Mbps (5 MHz, Dynamic) | | | Up to 150 Mbps (40 MHz, Dynamic) Up to 72.2 Mbps (20 MHz, Dynamic) Up to 36.1 Mbps (10 MHz, Dynamic) Up to 18.05 Mbps (5 MHz, Dynamic) | Up to 300 Mbps (40 MHz, Dynamic) Up to 144.4 Mbps (20 MHz, Dynamic) Up to 72.2 Mbps (10 MHz, Dynamic) Up to 36.1 Mbps (5 MHz, Dynamic) | Up to 867 Mbps (80 MHz, Dynamic) Up to 400 Mbps (40 MHz, Dynamic) Up to 173.4 Mbps (20 MHz, Dynamic) | |
| | Maximum Transmit Power ⁷ | 25 dBm (Adjustable power by 1 dBm) | 30 dBm (Adjustable power by 1 dBm) | 26 dBm (Adjustable power by 1 dBm) | 23 dBm (Adjustable power by 1 dBm) | 25 dBm (Adjustable power by 1 dBm) | 27 dBm (Adjustable power by 1 dBm) | |
| Software Feature | Operation Mode | AP / Client / AP Router / AP Client Router (WISP Client) | | | | | | |
| | Network Configurations | WAN: Static / Dynamic / PPPoE / L2TP / PPTP (CPE210 / CPE220 / CPE510 / CPE605 / CPE610 supports L2TP / PPTP) LAN: Static / Dynamic / DHCP IPv6 Forwarding: ALG / UPnP / Virtual Server / Port Trigger Security: SPI Firewall / Ping Forbidden / DoS Protection Access Control Static Routing Bandwidth Control IP & MAC Binding | | | | | | |

⁵ Available operating frequency may vary depending on the limitation of the countries or regions in which the device is used.

⁶ Maximum wireless transmission rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless transmission rate will vary as a result of:

- 1) environmental factors, including building materials, physical objects and obstacles,
- 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead and
- 3) client limitations, including rated performance, location, connection quality, and client condition.

⁷ Maximum transmit power is limited by local regulatory settings.

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| Software Feature | Wireless Configurations | Pharos MAXtreem TDMA Technology (CPE210 / CPE220 / CPE510 / CPE605 / CPE610 supports Maxtreem.) Long Range PtP Selectable Channel Width: 20/40/80 MHz for CPE710, 5/10/20/40 MHz for other models Auto Channel Selection Transmit Power Control Dynamic Frequency Selection (DFS) (CPE510 / CPE605 / CPE610 / CPE710 supports DFS.) WDS Enable/Disable Security: WPA / WPA2, WPA-PSK / WPA2-PSK (AES / TKIP) Encryption SSID Broadcast Enable/Disable Multi-SSID with VLAN Tagging (AP mode only) Distance / ACK Timeout Setting Wireless MAC Address Filter Wireless Advanced: Beacon Inteval / RTS Threshold / Fragmentation Threshold / DTIM Inteval / AP Isolation / Short GI / Wi-Fi Multimedia | | | | |
| | Management | Discovery and Remote Management via Pharos Control application HTTP / HTTPS Web-based management System Log SNMP Agent (v2c) Ping Watch Dog Dynamic DDNS SSH Server | | | | |
| | System Tools | Indicators: Signal Strength / Noise / Transmit CCQ / CPU / Memory Monitors: Throughput / Stations / Interfaces / ARP / Routes / WAN / DHCP Spectrum Analysis Speed Test Ping Traceroute Antenna Alignment | | | | |

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| Software Feature | System-level Optimizations | IGMP Snooping / Proxy for multicast applications | | | | |
| | System Requirements | Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 10, Windows 8, Windows 7, MAC OS, NetWare, UNIX or Linux. Note: We recommend you to use one of following Web browsers for better experience: Google Chrome, Safari, Firefox. IE browsers are not recommended. | | | | |
| Others | Certification | CE, FCC, RoHS, IPX5 | | CE, FCC, RoHS, IP65 | CE, FCC, RoHS, IP65, IC | |
| | Environment | Operating Temperature: -40 °C~70 °C (-40 °F~158 °F) Storage Temperature: -40 °C~70 °C (-40 °F~158 °F) Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~95% non-condensing | | | | |